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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA–2021–0662; Project Identifier MCAI–2021–00031–E; Amendment 39–21943; AD 2022–04–02]

RIN 2120–AA64

Airworthiness Directives; Rolls-Royce Deutschland Ltd & Co KG (Type Certificate Previously Held by Rolls-Royce plc) Turbofan Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain Rolls-Royce Deutschland Ltd & Co KG (RRD) Trent 1000 model turbofan engines. This AD was prompted by reports of high levels of wear on the seal fins on a small number of certain high-pressure turbine triple seals. This AD requires manual deactivation of the modulated air system (MAS) control valves. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective March 29, 2022.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of March 29, 2022.

ADDRESSES: For service information identified in this final rule, contact Rolls-Royce plc, Corporate Communications, P.O. Box 31, Derby, DE24 8BJ, United Kingdom; phone: +44 (0)1332 242424; fax: +44 (0)1332 249936; website: *https://www.rolls-royce.com/contact-us.aspx.* You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 1200 District Avenue, Burlington, MA 01803. For information on the availability of this material at the FAA, call (817) 222–5110. It is also available at *https://www.regulations.gov* by searching for and locating Docket No. FAA–2021–0662.

Examining the AD Docket

You may examine the AD docket at *https://www.regulations.gov* by searching for and locating Docket No. FAA–2021–0662; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the mandatory continuing airworthiness information (MCAI), any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M–30, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue SE, Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Kevin Clark, Aviation Safety Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA 01803; phone: (781) 238–7088; fax: (781) 238–7199; email: *kevin.m.clark@faa.gov*.

SUPPLEMENTARY INFORMATION:

Background

The FAA issued a supplemental notice of proposed rulemaking (SNPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain RRD (Type Certificate previously held by Rolls-Royce plc) Trent 1000–AE3, Trent 1000–CE3, Trent 1000–D3, Trent 1000–G3, Trent 1000–H3, Trent 1000–J3, Trent 1000–K3, Trent 1000–L3, Trent 1000–M3, Trent 1000–N3, Trent 1000–P3, Trent 1000–Q3, and Trent 1000–R3 model turbofan engines. The SNPRM published in the **Federal Register** on November 05, 2021 (86 FR 61083). The SNPRM was prompted by the notice of proposed rulemaking (NPRM) being placed in incorrect Docket No. FAA–2021–0637 instead of Docket No. FAA–2021–0662, which caused some commenters to experience difficulty commenting on the NPRM. In the SNPRM, the FAA proposed to require manual deactivation of the MAS control valves. The FAA is issuing this AD to address the unsafe condition on these products.

The European Union Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2021–0009, dated January 8, 2021 (referred to after this as ''the MCAI''), to address the unsafe condition on these products. The MCAI states:

> The Modulated Air System (MAS) optimises cooling air, extracted from the compressor, where full flow is not required at cruise conditions. It is only active during cruise. Recently, occurrences have been reported of finding high levels of wear on the seal fins on a small number of high pressure turbine triple seals, Part Number FW34485. The effect on the secondary air system was conservatively assessed due to the resultant increased turbine cooling air leakage, which changes the cooling flow around the intermediate pressure (IP) turbine disc.
>
> This condition, if not corrected, could lead to temperature increase at the IP turbine disc rim when the MAS is active, possibly resulting in IP turbine disc failure and high energy debris release, with consequent damage to, and reduced control of, the aeroplane. To address this potential unsafe condition, Rolls-Royce has issued the NMSB, providing instructions to manually 'lock-out' (deactivate) the MAS control valves.
>
> For the reason described above, this [EASA] AD requires to deactivate the MAS control valves. This [EASA] AD also specifies that the Master Minimum Equipment List (MMEL) item for 'MAS inoperative', which has a limit of 120 days, does not apply when the system is manually deactivated.

You may obtain further information by examining the MCAI in the AD docket at *https://www.regulations.gov* by searching for and locating Docket No. FAA–2021–0662.

Discussion of Final Airworthiness Directive

Comments

The FAA received a comment from one commenter, Roll-Royce plc (RR). The following presents the comment received on the SNPRM and the FAA's response to the comment.

Request To Consider Improved Solution as a Terminating Action

RR stated that it has no objections to the SNPRM as written but requested that the FAA consider an improved solution that is being developed by RR as a terminating action for this AD. RR noted that the improved solution would permanently deactivate the MAS system without initiating engine indicating and crew alerting system (EICAS) messages. RR reasoned that deactivation of the MAS was introduced as an immediate containment action; however, this solution produces spurious EICAS messages, indicating a malfunction in

the MAS system. As a result, operators are instructed not to follow the minimum equipment list instructions and limitations.

The FAA will consider the improved solution as a possible terminating action and may consider future rulemaking once the improved solution becomes available. The FAA did not change this AD as a result of this comment.

Conclusion

The FAA reviewed the relevant data, considered the comment received, and determined that air safety and the public interest require adopting this AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on these products. This AD is adopted as proposed in the SNPRM.

Related Service Information Under 1 CFR Part 51

The FAA reviewed Rolls-Royce Alert Non-Modification Service Bulletin Trent 1000 75–AK642, Initial Issue, dated November 30, 2020. The service information specifies procedures for deactivating the MAS control valves. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in **ADDRESSES**.

Costs of Compliance

The FAA estimates that this AD affects 4 engines installed on airplanes of U.S. registry.

The FAA estimates the following costs to comply with this AD:

ESTIMATED COSTS

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Deactivate the MAS control valves	2 work-hours × $85 per hour = $170	$0	$170	$680

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this AD:

(1) Is not a ''significant regulatory action'' under Executive Order 12866,

(2) Will not affect intrastate aviation in Alaska, and

(3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39—AIRWORTHINESS DIRECTIVES

■ 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

■ 2. The FAA amends § 39.13 by adding the following new airworthiness directive:

2022–04–02 Rolls-Royce Deutschland Ltd & Co KG (Type Certificate previously held by Rolls-Royce plc): Amendment 39–21943; Docket No. FAA–2021–0662; Project Identifier MCAI–2021–00031–E.

(a) Effective Date

This airworthiness directive (AD) is effective March 29, 2022.

(b) Affected ADs

None.

(c) Applicability

This AD applies to Rolls-Royce Deutschland Ltd & Co KG (RRD) (Type Certificate previously held by Rolls-Royce plc) Trent 1000–AE3, Trent 1000–CE3, Trent 1000–D3, Trent 1000–G3, Trent 1000–H3, Trent 1000–J3, Trent 1000–K3, Trent 1000–L3, Trent 1000–M3, Trent 1000–N3, Trent 1000–P3, Trent 1000–Q3, and Trent 1000–R3 model turbofan engines.

(d) Subject

Joint Aircraft System Component (JASC) Code 7250, Turbine Section.

(e) Unsafe Condition

This AD was prompted by reports of high levels of wear on the seal fins on a small number of certain high-pressure turbine triple seals. The FAA is issuing this AD to ensure cooling airflow restoration to the intermediate-pressure turbine (IPT) disk rim during cruise by deactivating the modulated air system (MAS). The unsafe condition, if not addressed, could result in a temperature increase at the IPT disk rim when the MAS is active during cruise, resulting in failure of the IPT disk, loss of engine thrust control, and loss of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions

Within the compliance time specified in figure 1 to paragraph (g) of this AD, deactivate the MAS control valves using the Accomplishment Instructions, paragraphs 3.A.(6) and 3.A.(7), of Rolls-Royce Alert Non-Modification Service Bulletin Trent 1000 75–AK642, Initial Issue, dated November 30, 2020.

Note 1 to paragraph (g): Deactivation of the MAS control valves on an engine required by paragraph (g) of this AD changes the engine to an approved configuration that will produce engine indicating and crew alerting system (EICAS) status messages ''ENG MAS VALVE L/R'' and ''ENG MAS SYS TEST L/R.'' Since MAS is purposely disabled after compliance with paragraph (g) of this AD, these status messages do not indicate inoperative (failed) equipment and, consequently, the operator's existing FAA-approved minimum equipment list (MEL) instructions and limitations, including the 120-day operation limitation, do not apply.

Note 2 to paragraph (g): Deactivation of the MAS control valves on an engine as required by paragraph (g) of this AD does not produce the EICAS status message ''ENG MAS VALVE SENSOR L/R.'' Consequently, when this EICAS message displays, it remains indicative of inoperative equipment, even if

the MAS has been disabled as required by paragraph (g) of this AD. As a result, the corresponding MEL instructions and limitations apply whenever the EICAS status message ''ENG MAS VALVE SENSOR L/R'' is displayed.

Figure 1 to paragraph (g) – Compliance time

MAS deactivation option	Compliance time, whichever occurs later after the effective date of this AD, A or B
A	Within 50 engine flight cycles (FCs) since new
B	Within 30 days or 100 FCs, whichever occurs first

(h) Alternative Methods of Compliance (AMOCs)

(1) The Manager, ECO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ECO Branch, send it to the attention of the person identified in paragraph (i)(1) of this AD and email to: *ANE-AD-AMOC@faa.gov.*

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(i) Related Information

(1) For more information about this AD, contact Kevin Clark, Aviation Safety Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA 01803; phone: (781) 238–7088; fax: (781) 238–7199; email: *kevin.m.clark@faa.gov.*

(2) Refer to European Union Aviation Safety Agency (EASA) AD 2021–0009, dated January 8, 2021, for more information. You may examine the EASA AD in the AD docket at *https://www.regulations.gov* by searching for and locating Docket No. FAA–2021–0662.

(j) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Rolls-Royce Alert Non-Modification Service Bulletin Trent 1000 75–AK642, Initial Issue, dated November 30, 2020.

(ii) [Reserved]

(3) For Rolls-Royce service information identified in this AD, contact Rolls-Royce plc, Corporate Communications, P.O. Box 31, Derby, DE24 8BJ, United Kingdom; phone: +44 (0)1332 242424; fax: +44 (0)1332 249936; website: *https://www.rolls-royce.com/contact-us.aspx.*

(4) You may view this service information at FAA, Airworthiness Products Section, Operational Safety Branch, 1200 District Avenue, Burlington, MA 01803. For information on the availability of this material at the FAA, call (817) 222–5110.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email: *fr.inspection@nara.gov,* or go to: *https://www.archives.gov/federal-register/cfr/ibr-locations.html.*

Issued on February 3, 2022.

Lance T. Gant,

Director, Compliance & Airworthiness Division, Aircraft Certification Service.

[FR Doc. 2022–03638 Filed 2–18–22; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA–2022–0144; Project Identifier AD–2022–00042–T; Amendment 39–21952; AD 2022–05–01]

RIN 2120–AA64

Airworthiness Directives; Learjet, Inc., Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain Learjet, Inc., Model 35, 35A (C–21A), 36, 36A, 55, 55B, 55C, and 60 airplanes. This AD was prompted by a report indicating that a repair station approved Learjet spoiler assemblies for return to service after extending their life limit. This AD requires removing certain spoiler assemblies from service and prohibits their installation. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective March 9, 2022.

The FAA must receive comments on this AD by April 8, 2022.

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- *Federal eRulemaking Portal:* Go to *https://www.regulations.gov.* Follow the instructions for submitting comments.
- *Fax:* 202–493–2251.
- *Mail:* U.S. Department of Transportation, Docket Operations, M–30, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue SE, Washington, DC 20590.
- *Hand Delivery:* Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

Examining the AD Docket

You may examine the AD docket at *https://www.regulations.gov* by searching for and locating Docket No. FAA–2022–0144; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, any comments received, and other information. The street address for Docket Operations is listed above.

FOR FURTHER INFORMATION CONTACT: Tara Shawn, Aerospace Engineer, Airframe and Services Section, FAA, Wichita ACO Branch, 1801 Airport Road, Room 100, Wichita, KS 67209; phone: 316–946–4141; email: *Tara.Shawn@faa.gov.*

SUPPLEMENTARY INFORMATION:

Background

On September 14, 2021, the FAA Kansas City Flight Standards District Office (FSDO) received a report that a repair station, Restored Aircraft Sales and Service, LLC, had approved several Learjet spoiler assemblies for return to service after completing a life limit extension. The Kansas City FSDO notified the Wichita ACO Branch of this issue on September 22, 2021.

Investigation by the Kansas City FSDO and Wichita ACO Branch revealed that after overhauling or repairing spoiler assemblies for Learjet airplanes, the repair station extended the FAA-approved life limit of the spoiler assemblies, in some cases by

doubling, the life limit established by Learjet in the airworthiness limitations section of the instructions for continued airworthiness. This maintenance on the spoiler assemblies performed by the repair station constituted a major change in type design. Since the repair station does not hold the type certificate for the affected airplanes, this major change in type design required application for a supplemental type certificate and FAA approval to ensure the structural durability of the spoiler assemblies beyond the established life limit. Instead, the approval for return to service by the repair station lacked references to acceptable data and FAA approval. Documentation received during the investigation suggests that these spoiler assemblies are being used in service beyond the FAA-approved life limit. Furthermore, the investigation specifically identified eight spoiler assemblies that had their life limit extended and were approved for return to service, although there could be more spoiler assemblies subject to the unsafe condition.

Operation of an airplane with a spoiler assembly beyond its FAA-approved life limit, if not addressed, could lead to undetected cracking and consequent failure or separation of the spoiler assembly, resulting in a reduction or complete loss of control of the airplane. The FAA is issuing this AD to address the unsafe condition on these products.

FAA's Determination

The FAA is issuing this AD because the agency has determined that the unsafe condition described previously is likely to exist or develop in other products of the same type design.

AD Requirements

This AD requires removing affected spoiler assemblies (those that have had their life limit extended by Restored Aircraft Sales and Service, LLC, or the maintenance records related to the life limit for the spoiler assembly are missing or incomplete) before further flight. This AD also prohibits the installation of affected spoiler assemblies on the identified Learjet airplane models.

Justification for Immediate Adoption and Determination of the Effective Date

Section 553(b)(3)(B) of the Administrative Procedure Act (APA) (5 U.S.C. 551 *et seq.*) authorizes agencies to dispense with notice and comment procedures for rules when the agency, for ''good cause,'' finds that those procedures are ''impracticable, unnecessary, or contrary to the public interest.'' Under this section, an agency, upon finding good cause, may issue a final rule without providing notice and seeking comment prior to issuance. Further, section 553(d) of the APA authorizes agencies to make rules effective in less than thirty days, upon a finding of good cause.

An unsafe condition exists that requires the immediate adoption of this AD without providing an opportunity for public comments prior to adoption. The FAA has found that the risk to the flying public justifies forgoing notice and comment prior to adoption of this rule because use of a spoiler assembly beyond its FAA-approved life limit could lead to undetected cracking and consequent failure or separation of the spoiler assembly, resulting in a reduction or complete loss of control of the airplane. Based on the lack of available data that would ensure the strength or durability characteristics of these assemblies beyond their life limit, the FAA has determined that affected spoiler assemblies must be removed before further flight. Accordingly, notice and opportunity for prior public comment are impracticable and contrary to the public interest pursuant to 5 U.S.C. 553(b)(3)(B).

In addition, the FAA finds that good cause exists pursuant to 5 U.S.C. 553(d) for making this amendment effective in less than 30 days, for the same reasons the FAA found good cause to forgo notice and comment.

Comments Invited

The FAA invites you to send any written data, views, or arguments about this final rule. Send your comments to an address listed under **ADDRESSES**. Include Docket No. FAA–2022–0144 and Project Identifier AD–2022–00042–T at the beginning of your comments. The most helpful comments reference a specific portion of the final rule, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this final rule because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to *https://www.regulations.gov,* including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this final rule.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this AD contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this AD, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as ''PROPIN.'' The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this AD. Submissions containing CBI should be sent to Tara Shawn, Aerospace Engineer, Airframe and Services Section, FAA, Wichita ACO Branch, 1801 Airport Road, Room 100, Wichita, KS 67209; phone: 316–946–4141; email: *Tara.Shawn@faa.gov.* Any commentary that the FAA receives that is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Regulatory Flexibility Act

The requirements of the Regulatory Flexibility Act (RFA) do not apply when an agency finds good cause pursuant to 5 U.S.C. 553 to adopt a rule without prior notice and comment. Because the FAA has determined that it has good cause to adopt this rule without notice and comment, RFA analysis is not required.

Costs of Compliance

The FAA estimates that this AD affects at least 8 spoiler assemblies. The FAA estimates the following costs to comply with this AD, based on the assumption that all affected spoiler assemblies are installed on airplanes of U.S. registry:

ESTIMATED COSTS *

Action	Labor cost	Parts cost	Cost per spoiler assembly	Cost on U.S. operators
Spoiler assembly replacement.	70 work-hours × $85 per hour = $5,950.	$44,039	$49,989	$399,912

* Each airplane contains two spoiler assemblies.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

(1) Is not a ''significant regulatory action'' under Executive Order 12866, and

(2) Will not affect intrastate aviation in Alaska.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39—AIRWORTHINESS DIRECTIVES

■ 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

■ 2. The FAA amends § 39.13 by adding the following new airworthiness directive:

2022–05–01 Learjet, Inc.: Amendment 39–21952; Docket No. FAA–2022–0144; Project Identifier AD–2022–00042–T.

(a) Effective Date

This airworthiness directive (AD) is effective March 9, 2022.

(b) Affected ADs

None.

(c) Applicability

This AD applies to Learjet, Inc., Model 35, 35A (C–21A), 36, 36A, 55, 55B, 55C, and 60 airplanes, certificated in any category, with any spoiler assembly that meets any of the criteria identified in paragraph (c)(1) or (2) of this AD.

(1) The spoiler assembly's life limit was extended by Restored Aircraft Sales and Service, LLC.

(2) The maintenance records related to the life limit for the spoiler assembly are missing or incomplete.

(d) Subject

Air Transport Association (ATA) of America Code 5755, Spoilers.

(e) Unsafe Condition

This AD was prompted by a report indicating that a repair station performed a life extension program on spoiler assemblies that had reached or were close to reaching their life limit. The FAA is issuing this AD to prevent use of a spoiler assembly beyond its FAA-approved life limit, which could lead to undetected cracking and consequent failure or separation of the spoiler assembly, resulting in a reduction or complete loss of control of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Spoiler Assembly Removal

For each spoiler assembly identified in paragraph (c) of this AD: Remove the spoiler assembly from service before further flight.

(h) Parts Installation Prohibition

As of the effective date of this AD, no person may install, on any airplane, a spoiler assembly identified in paragraph (c) of this AD.

(i) Special Flight Permit

Special flight permits, as described in 14 CFR 21.197 and 21.199, may be issued to operate the airplane to a location where the requirements of this AD can be accomplished, but concurrence by the Manager, Wichita ACO Branch, FAA, is required before issuance of the special flight permit.

(j) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Wichita ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or responsible Flight Standards Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (k) of this AD.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(k) Related Information

For more information about this AD, contact Tara Shawn, Aerospace Engineer, Airframe and Services Section, FAA, Wichita ACO Branch, 1801 Airport Road, Room 100, Wichita, KS 67209; phone: 316–946–4141; email: *Tara.Shawn@faa.gov.*

(l) Material Incorporated by Reference

None.

Issued on February 16, 2022.

Lance T. Gant,

Director, Compliance & Airworthiness Division, Aircraft Certification Service.

[FR Doc. 2022–03805 Filed 2–17–22; 11:15 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA–2021–1006; Project Identifier MCAI–2021–00700–T; Amendment 39–21940; AD 2022–03–22]

RIN 2120–AA64

Airworthiness Directives; Airbus SAS Airplanes

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: The FAA is superseding Airworthiness Directive (AD) 2019–26–01, which applied to certain Airbus SAS Model A350–941 and –1041 airplanes. AD 2019–26–01 required repetitive detailed inspections, and applicable corrective actions, and provided an optional modification that terminated the inspections. Since the FAA issued AD 2019–26–01, a determination was made that a related production modification was not properly installed on certain airplanes. This AD retains the requirements of AD 2019–26–01, and, for certain airplanes, adds a one-time detailed inspection of the modification for proper installation, and applicable corrective actions if necessary, as specified in a European Union Aviation Safety Agency (EASA) AD, which is incorporated by reference. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective March 29, 2022.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of March 29, 2022.

ADDRESSES: For the material incorporated by reference (IBR) in this AD, contact the EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email *ADs@easa.europa.eu*; internet *www.easa.europa.eu*. You may view this IBR material at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206–231–3195. It is also available in the AD docket on the internet at *https://www.regulations.gov* by searching for and locating Docket No. FAA–2021–1006.

Examining the AD Docket

You may examine the AD docket at *https://www.regulations.gov* by searching for and locating Docket No. FAA–2021–1006; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the mandatory continuing airworthiness information (MCAI), any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M–30, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue SE, Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Dan Rodina, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone and fax 206–231–3225; email *dan.rodina@faa.gov.*

SUPPLEMENTARY INFORMATION:

Background

EASA, which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2021–0141, dated June 15, 2021 (EASA AD 2021–0141) (also referred to as the MCAI), to correct an unsafe condition for certain Airbus SAS Model A350–941 and –1041 airplanes.

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 2019–26–01, Amendment 39–21023 (85 FR 4199, January 24, 2020) (AD 2019–26–01). AD 2019–26–01 applied to certain Airbus SAS Model A350–941 and –1041 airplanes. The NPRM published in the **Federal Register** on November 18, 2021 (86 FR 64416). The NPRM was prompted by reports of sealant bead damage caused by rotation of the attachment fitting bearing assembly of a trimmable horizontal stabilizer (THS) and a determination that a related production modification was not properly installed on certain airplanes. The NPRM proposed to retain the requirements of AD 2019–26–01, and, for certain airplanes, proposed to add a one-time detailed inspection of the modification for proper installation, and applicable corrective actions if necessary, as specified in EASA AD 2021–0141.

The FAA is issuing this AD to address possible water ingress due to sealant bead damage, which could result in corrosion damage in the aluminum corner fitting. This condition, if not addressed, could lead to detachment and loss of the THS, possibly resulting in loss of control of the airplane and injury to persons on the ground. See the MCAI for additional background information.

Discussion of Final Airworthiness Directive

Comments

The FAA received a comment from the Air Line Pilots Association, International (ALPA), who supported the NPRM without change.

Conclusion

The FAA reviewed the relevant data, considered the comment received, and determined that air safety requires adopting this AD as proposed. Except for minor editorial changes, this AD is adopted as proposed in the NPRM. None of the changes will increase the economic burden on any operator. Accordingly, the FAA is issuing this AD to address the unsafe condition on these products.

Related Service Information Under 1 CFR Part 51

EASA AD 2021–0141 describes procedures for repetitive detailed inspections for damage of the fillet sealant and corrosion on aluminum in the lower and upper corner fittings and bearing assembly attachment interface at frame (FR) 102, left-hand and right-hand sides, and an optional modification (application of new corrosion protection in the THS upper and lower attachment fitting bearing assembly) that would eliminate the need for the repetitive inspections. EASA AD 2021–0141 also describes procedures for a one-time detailed inspection of the modification of the lower and upper corner fittings and bearing assembly attachment interface at FR 102, left-hand and right-hand sides (Airbus production modification 113102) for discrepancies (including missing sealant bead, cracks in the sealant bead, and corrosion on the affected bearing zone) and corrective actions (including, but not limited to, a check for grease, a check for cracks in the sealant bead, applying sealant, torqueing the bearing nut, inspecting for corrosion on the affected bearing zone, applying corrosion preventative compound and actions to address missing grease and corrosion). This material is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the **ADDRESSES** section.

Costs of Compliance

The FAA estimates that this AD affects 15 airplanes of U.S. registry. The FAA estimates the following costs to comply with this AD:

ESTIMATED COSTS FOR REQUIRED ACTIONS

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Retained actions from AD 2019-26-01	30 work-hours × $85 per hour = $2,550	$0	$2,550	$38,250
New actions	32 work-hours × $85 per hour = $2,720	0	2,720	40,800

The FAA has received no definitive data that enables the agency to provide cost estimates for the corrective actions (including repair) specified in this AD.

ESTIMATED COSTS OF OPTIONAL ACTIONS

Labor cost	Parts cost	Cost per product
34 work-hours × $85 per hour = $2,890	$0	$2,890

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

(1) Is not a ''significant regulatory action'' under Executive Order 12866,

(2) Will not affect intrastate aviation in Alaska, and

(3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39—AIRWORTHINESS DIRECTIVES

■ 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

■ 2. The FAA amends § 39.13 by:

■ a. Removing Airworthiness Directive (AD) 2019–26–01, Amendment 39–21023 (85 FR 4199, January 24, 2020); and

■ b. Adding the following new AD:

2022–03–22 Airbus SAS: Amendment 39–21940; Docket No. FAA–2021–1006; Project Identifier MCAI–2021–00700–T.

(a) Effective Date

This airworthiness directive (AD) is effective March 29, 2022.

(b) Affected ADs

This AD replaces AD 2019–26–01, Amendment 39–21023 (85 FR 4199, January 24, 2020) (AD 2019–26–01).

(c) Applicability

This AD applies to Airbus SAS Model A350–941 and –1041 airplanes, certificated in any category, as identified in European Union Aviation Safety Agency (EASA) AD 2021–0141, dated June 15, 2021 (EASA AD 2021–0141).

(d) Subject

Air Transport Association (ATA) of America Code 53, Fuselage.

(e) Reason

This AD was prompted by reports of sealant bead damage caused by rotation of the attachment fitting bearing assembly of a trimmable horizontal stabilizer (THS) and a determination that a related production modification was not properly installed on certain airplanes. The FAA is issuing this AD to address possible water ingress due to sealant bead damage, which could result in corrosion damage in the aluminum corner fitting. This condition, if not addressed, could lead to detachment and loss of the THS, possibly resulting in loss of control of the airplane and injury to persons on the ground.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Requirements

Except as specified in paragraph (h) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, EASA AD 2021–0141.

(h) Exceptions to EASA AD 2021–0141

(1) Where EASA AD 2021–0141 refers to February 21, 2018 (the effective date of EASA AD 2018–0037), this AD requires using February 28, 2020 (the effective date of FAA AD 2019–26–01).

(2) Where EASA AD 2021–0141 refers to its effective date, this AD requires using the effective date of this AD.

(3) The ''Remarks'' section of EASA AD 2021–0141 does not apply to this AD.

(i) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs):* The Manager, Large Aircraft Section, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or responsible Flight Standards Office, as appropriate. If sending information directly to the Large Aircraft Section, International Validation Branch, send it to the attention of the person

identified in paragraph (j) of this AD. Information may be emailed to: *9-AVS-AIR-730-AMOC@faa.gov.*

(i) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(ii) AMOCs approved previously for AD 2019–26–01 are approved as AMOCs for the corresponding provisions of EASA AD 2021–0141 that are required by paragraph (g) of this AD.

(2) *Contacting the Manufacturer:* For any requirement in this AD to obtain instructions from a manufacturer, the instructions must be accomplished using a method approved by the Manager, Large Aircraft Section, International Validation Branch, FAA; or EASA; or Airbus SAS's EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

(3) *Required for Compliance (RC):* For any service information referenced in EASA AD 2021–0141 that contains RC procedures and tests: Except as required by paragraph (i)(2) of this AD, RC procedures and tests must be done to comply with this AD; any procedures or tests that are not identified as RC are recommended. Those procedures and tests that are not identified as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an AMOC, provided the procedures and tests identified as RC can be done and the airplane can be put back in an airworthy condition. Any substitutions or changes to procedures or tests identified as RC require approval of an AMOC.

(j) Related Information

For more information about this AD, contact Dan Rodina, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone and fax 206–231–3225; email *dan.rodina@faa.gov.*

(k) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) European Union Aviation Safety Agency (EASA) AD 2021–0141, dated June 15, 2021.

(ii) [Reserved]

(3) For EASA AD 2021–0141, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email *ADs@easa.europa.eu*; internet *www.easa.europa.eu.* You may find this EASA AD on the EASA website at *https://ad.easa.europa.eu.*

(4) You may view this material at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206–231–3195.

(5) You may view this material that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email *fr.inspection@nara.gov,* or go to: *https://www.archives.gov/federal-register/cfr/ibr-locations.html.*

Issued on January 28, 2022.

Lance T. Gant,

Director, Compliance & Airworthiness Division, Aircraft Certification Service.

[FR Doc. 2022–03633 Filed 2–18–22; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA–2022–0101; Project Identifier AD–2021–01456–E; Amendment 39–21949; AD 2022–04–07]

RIN 2120–AA64

Airworthiness Directives; General Electric Company Turbofan Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain General Electric Company (GE) GEnx–1B64, –1B64/P1, –1B64/P2, –1B67, –1B67/P1, –1B67/P2, –1B70, –1B70/75/P1, –1B70/75/P2, –1B70/P1, –1B70/P2, –1B70C/P1, –1B70C/P2, –1B74/75/P1, –1B74/75/P2, –1B76/P2, –1B76A/P2, GEnx–2B67, –2B67B, and –2B67/P model turbofan engines. This AD was prompted by an in-flight shutdown (IFSD) of an engine and subsequent investigation by the manufacturer that revealed an improperly torqued fuel metering unit (FMU) bypass valve (BPV) plug. This AD requires a shim check inspection of the FMU BPV plug and, depending on the results of the inspection, replacement of the FMU. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective March 9, 2022.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of March 9, 2022.

The FAA must receive comments on this AD by April 8, 2022.

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- *Federal eRulemaking Portal:* Go to *https://www.regulations.gov.* Follow the instructions for submitting comments.
- *Fax:* (202) 493–2251.
- *Mail:* U.S. Department of Transportation, Docket Operations, M–30, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue SE, Washington, DC 20590.
- *Hand Delivery:* Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this final rule, contact General Electric Company, 1 Neumann Way, Cincinnati, OH 45215; phone: (513) 552–3272; email: *aviation.fleetsupport@ae.ge.com;* website: *https://www.ge.com.* You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 1200 District Avenue, Burlington, MA 01803. For information on the availability of this material at the FAA, call (817) 222–5110. It is also available at *https://www.regulations.gov* by searching for and locating Docket No. FAA–2022–0101.

Examining the AD Docket

You may examine the AD docket at *https://www.regulations.gov* by searching for and locating Docket No. FAA–2022–0101; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, any comments received, and other information. The street address for the Docket Operations is listed above.

FOR FURTHER INFORMATION CONTACT: Alexei Marqueen, Aviation Safety Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA 01803; phone: (781) 238–7178; email: *Alexei.T.Marqueen@faa.gov.*

SUPPLEMENTARY INFORMATION:

Background

On July 20, 2021, a Boeing model 747–8F airplane, powered by GEnx–2B67/P model turbofan engines, flying from Hong Kong to Dubai, experienced N1 overspeed and fire warnings that resulted in an IFSD and air turnback (ATB) to Hong Kong. After landing, the engine reignited and emergency crews extinguished the fire. The investigation led by the National Transportation Safety Board found several fuel system leaks including at the FMU supply pressure (P1) BPV pressure port with a loose FMU BPV plug safety cabled in place. Because a safety cable was in place, the investigation concluded that the FMU BPV plug might not have been torqued properly during production or during an engine shop visit. During the investigation, GE discovered that another operator, operating a Boeing

model 787–10 airplane, powered by GEnx–1B74/75/P2 model turbofan engines, found a fuel system leak related to a loose FMU BPV plug in August 2020 during a walk-around after a flight. As a result of the investigation, the manufacturer published GE GEnx–1B Service Bulletin (SB) 73–0100 R00, dated December 3, 2021, and GE GEnx–2B SB 73–0092 R00, dated December 3, 2021, specifying procedures to inspect the FMU BPV plug and, depending on the results of the inspection, replacement of the FMU. This condition, if not addressed, could result in loss of engine thrust control, IFSD, and reduced control of the aircraft. The FAA is issuing this AD to address the unsafe condition on these products.

FAA's Determination

The FAA is issuing this AD because the agency has determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Related Service Information Under 1 CFR Part 51

The FAA reviewed GE GEnx–1B SB 73–0100 R00, dated December 3, 2021, and GE GEnx–2B SB 73–0092 R00, dated December 3, 2021. These SBs specify procedures for inspecting the FMU BPV plug and replacing the FMU on GE GEnx–1B and GEnx–2B model turbofan engines. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in **ADDRESSES**.

AD Requirements

This AD requires a shim check inspection of the FMU BPV plug and, depending on the results of the inspection, replacement of the FMU.

Justification for Immediate Adoption and Determination of the Effective Date

Section 553(b)(3)(B) of the Administrative Procedure Act (APA) (5 U.S.C. 551 *et seq.*) authorizes agencies to dispense with notice and comment procedures for rules when the agency, for ''good cause,'' finds that those procedures are ''impracticable, unnecessary, or contrary to the public interest.'' Under this section, an agency, upon finding good cause, may issue a final rule without providing notice and seeking comment prior to issuance. Further, section 553(d) of the APA authorizes agencies to make rules effective in less than thirty days, upon a finding of good cause.

An unsafe condition exists that requires the immediate adoption of this AD without providing an opportunity for public comments prior to adoption. The FAA has found that the risk to the flying public justifies foregoing notice and comment prior to adoption of this rule. On July 20, 2021, a Boeing model 747–8F airplane, powered by GEnx–2B67/P model turbofan engines, experienced an IFSD and ATB due to a fuel system leak. This unsafe condition, caused by improper torquing of the FMU BPV plug, may result in the loss of engine thrust control, IFSD, and reduced control of the aircraft.

The FAA considers inspection of the FMU BPV plug to be an urgent safety issue. Inspection of the FMU BPV plug must be accomplished within 150 flight cycles after the effective date of this AD. The FAA estimates that engines affected by this AD will accumulate 150 flight cycles within approximately 90 days of the effective date of this AD. These conditions still exist, therefore, notice and opportunity for prior public comment are impracticable and contrary to the public interest pursuant to 5 U.S.C. 553(b)(3)(B).

In addition, the FAA finds that good cause exists pursuant to 5 U.S.C. 553(d) for making this amendment effective in less than 30 days, for the same reasons the FAA found good cause to forego notice and comment.

Comments Invited

The FAA invites you to send any written data, views, or arguments about this final rule. Send your comments to an address listed under **ADDRESSES**. Include ''Docket No. FAA–2022–0101 and Project Identifier AD–2021–01456–E'' at the beginning of your comments. The most helpful comments reference a specific portion of the final rule, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this final rule because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to *https://www.regulations.gov,* including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this final rule.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this AD contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this AD, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as ''PROPIN.'' The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this AD. Submissions containing CBI should be sent to Alexei Marqueen, Aviation Safety Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA 01803. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Regulatory Flexibility Act

The requirements of the Regulatory Flexibility Act (RFA) do not apply when an agency finds good cause pursuant to 5 U.S.C. 553 to adopt a rule without prior notice and comment. Because FAA has determined that it has good cause to adopt this rule without prior notice and comment, RFA analysis is not required.

Costs of Compliance

The FAA estimates that this AD affects 114 engines installed on airplanes of U.S. registry.

The FAA estimates the following costs to comply with this AD:

ESTIMATED COSTS

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Shim check inspection of FMU BPV plug	0.50 work-hours × $85 per hour = $42.50	$0	$42.50	$4,845

The FAA estimates the following costs to do any necessary replacement that would be required based on the results of the inspection. The agency has no way of determining the number of aircraft that might need this replacement:

ON-CONDITION COSTS

Action	Labor cost	Parts cost	Cost per product
Replace the FMU with a FMU that has undergone packing replacement.	8 work-hours × $85 per hour = $680	$200	$880
Replace the FMU	7 work-hours × $85 per hour = $595	727,317	727,912

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

(1) Is not a ''significant regulatory action'' under Executive Order 12866, and

(2) Will not affect intrastate aviation in Alaska.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39—AIRWORTHINESS DIRECTIVES

■ 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

■ 2. The FAA amends § 39.13 by adding the following new airworthiness directive:

2022–04–07 General Electric Company: Amendment 39–21949; Docket No. FAA–2022–0101; Project Identifier AD–2021–01456–E.

(a) Effective Date

This airworthiness directive (AD) is effective March 9, 2022.

(b) Affected ADs

None.

(c) Applicability

This AD applies to all General Electric Company (GE) GEnx–1B64, GEnx–1B64/P1, GEnx–1B64/P2, GEnx–1B67, GEnx–1B67/P1, GEnx–1B67/P2, GEnx–1B70, GEnx–1B70/75/P1, GEnx–1B70/75/P2, GEnx–1B70/P1, GEnx–1B70/P2, GEnx–1B70C/P1, GEnx–1B70C/P2, GEnx–1B74/75/P1, GEnx–1B74/75/P2, GEnx–1B76/P2, GEnx–1B76A/P2, GEnx–2B67, GEnx–2B67B, and GEnx–2B67/P model turbofan engines with:

(1) A fuel metering unit (FMU) VIN 8062–1094 part number (P/N) 2122M20P07, VIN 8062–1176 P/N 2122M20P08, VIN 8062–1106 P/N 2459M17P01, or VIN 8062–1177 P/N 2459M17P02, installed; and

(2) An FMU having a serial number (S/N) identified in Paragraph 4, Appendix A, Table 1, of either GE GEnx–1B Service Bulletin (SB) 73–0100 R00, dated December 3, 2021 (GEnx–1B SB 73–0100), or GE GEnx–2B SB 73–0092 R00, dated December 3, 2021 (GEnx–2B SB 73–0092).

(d) Subject

Joint Aircraft System Component (JASC) Code 7320, Fuel Controlling System.

(e) Unsafe Condition

This AD was prompted by an in-flight shutdown (IFSD) of an engine and subsequent investigation by the manufacturer that revealed an improperly torqued FMU bypass valve (BPV) plug. The FAA is issuing this AD to prevent fuel system leakage from the FMU. The unsafe condition, if not addressed, could result in the loss of engine thrust control, IFSD, and reduced control of the aircraft.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions

(1) Within 150 flight cycles after the effective date of this AD, perform either an on-wing or off-wing shim check inspection using a 0.005 inch feeler gauge of the FMU BPV plug to verify the FMU BPV plug is properly installed using the Accomplishment Instructions, paragraph 3.A.(4) or paragraph 3.B.(3), of GEnx–1B SB 73–0100 (for GEnx–1B models) or the Accomplishment Instructions, paragraph 3.A.(4) or paragraph 3.B.(3), of GEnx–2B SB 73–0092 (for GEnx–2B models), as applicable. Perform the shim check inspection on any flat side of the FMU BPV plug.

(2) If, during the inspection required by paragraph (g)(1) of this AD, the 0.005 inch feeler gauge can fit between the FMU BPV plug and the FMU housing on the flat side, before further flight, remove the FMU and replace with an FMU eligible for installation.

(h) Definitions

For the purpose of this AD, an ''FMU eligible for installation'' is:

(1) An FMU having a S/N that is not identified in Paragraph 4, Appendix A, Table 1, of GEnx–1B SB 73–0100 or GEnx–2B SB 73–0092;

(2) An FMU having a S/N identified in Paragraph 4, Appendix A, Table 1, of GEnx–1B SB 73–0100 or GEnx–2B SB 73–0092 that passes the shim check inspection required by paragraph (g)(1) of this AD; or

(3) An FMU having a S/N identified in Paragraph 4, Appendix A, Table 1, of GEnx–1B SB 73–0100 or GEnx–2B SB 73–0092 that fails the shim check inspection required by paragraph (g)(1) of this AD but has had the packing of the FMU BPV plug replaced per the Accomplishment Instructions, paragraph 3.C. of GEnx–1B 73–0100 or GEnx–2B 73–0092.

(i) Alternative Methods of Compliance (AMOCs)

(1) The Manager, ECO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as

appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (j) of this AD and email to: *ANE-AD-AMOC@faa.gov.*

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(j) Related Information

For more information about this AD, contact Alexei Marqueen, Aviation Safety Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA 01803; phone: (781) 238–7178; email: *Alexei.T.Marqueen@faa.gov.*

(k) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) General Electric Company (GE) GEnx–1B Service Bulletin (SB) 73–0100 R00, dated December 3, 2021.

(ii) GE GEnx–2B SB 73–0092 R00, dated December 3, 2021.

(3) For service information identified in this AD, contact General Electric Company, 1 Neumann Way, Cincinnati, OH 45215; phone: (513) 552–3272; email: *aviation.fleetsupport@ae.ge.com;* website: *https://www.ge.com.*

(4) You may view this service information at FAA, Airworthiness Products Section, Operational Safety Branch, 1200 District Avenue, Burlington, MA 01803. For information on the availability of this material at the FAA, call (817) 222–5110.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email: *fr.inspection@nara.gov,* or go to: *https://www.archives.gov/federal-register/cfr/ibr-locations.html.*

Issued on February 15, 2022.

Ross Landes,

Deputy Director for Regulatory Operations, Compliance & Airworthiness Division, Aircraft Certification Service.

[FR Doc. 2022–03787 Filed 2–17–22; 11:15 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA–2021–0875; Project Identifier AD–2021–00675–E; Amendment 39–21945; AD 2022–04–04]

RIN 2120–AA64

Airworthiness Directives; Continental Aerospace Technologies, Inc. and Continental Motors Reciprocating Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain Continental Aerospace Technologies, Inc. C–125, C145, IO–360, IO–470, IO–550, O–300, O–470, TSIO–360, TSIO–520 series model reciprocating engines and certain Continental Motors IO–520 series model reciprocating engines with a certain oil filter adapter installed. This AD was prompted by reports of two accidents that were the result of power loss due to oil starvation. This AD requires replacing the oil filter adapter fiber gasket (fiber gasket) with an oil filter adapter copper gasket (copper gasket). The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective March 29, 2022.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of March 29, 2022.

ADDRESSES: For service information identified in this final rule, contact Stratus Tool Technologies, LLC, 2208 Air Park Drive, Burlington, NC 27215; phone: (800) 822–3200; website: *https://www.tempestplus.com.* You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 1200 District Avenue, Burlington, MA 01803. For information on the availability of this material at the FAA, call (817) 222–5110. It is also available at *https://www.regulations.gov* by searching for and locating Docket No. FAA–2021–0875.

Examining the AD Docket

You may examine the AD docket at *https://www.regulations.gov* by searching for and locating Docket No. FAA–2021–0875; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M–30, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue SE, Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: George Hanlin, Aviation Safety Engineer, Atlanta ACO, FAA, 1701 Columbia Avenue, College Park, GA 30337; phone: (404) 474–5584; fax: (404) 474–5605; email: *george.hanlin@faa.gov.*

SUPPLEMENTARY INFORMATION:

Background

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain Continental Aerospace Technologies, Inc. (Type Certificate previously held by Continental Motors, Inc., and Teledyne Continental Motors) C–125–1, C–125–2, C145–2, C145–2H, IO–360–C, IO–360–D, IO–360–DB, IO–360–H, IO–360–HB, IO–360–K, IO–360–KB, IO–470–E, IO–470–S, IO–550–B, IO–550–G, O–300–B, O–300–C, O–300–D, O–300–E, O–470–A, O–470–B, O–470–G, O–470–J, O–470–K, O–470–L, O–470–M, O–470–N, O–470–R, O–470–S, O–470–U, O–470–11, O–470–15, TSIO–360–E, TSIO–360–EB, TSIO–360–F, TSIO–360–FB, TSIO–360–GB, TSIO–360–LB, TSIO–360–MB, TSIO–360–SB, TSIO–520–C, TSIO–520–CE, TSIO–520–E, TSIO–520–UB model reciprocating engines; and Continental Motors (Type Certificate previously held by Teledyne Continental Motors) IO–520–A, IO–520–B, IO–520–BA, IO–520–BB, IO–520–C, IO–520–D, IO–520–J, and IO–520–L model reciprocating engines. The NPRM published in the **Federal Register** on October 12, 2021 (86 FR 56658). The NPRM was prompted by reports of two accidents that were the result of power loss due to oil starvation. The first was a fatal accident on May 1, 2019, in Mill Creek California, involving a Cessna 182P airplane with an installed Continental Motors O–470–S engine. The National Transportation Safety Board's preliminary accident investigation report, docket number WPR19FA126, identified evidence of improperly maintained or installed oil filter adapters. An improperly maintained or installed oil filter adapter may lead to failure of the fiber gasket, which may result in oil loss or oil starvation. Based on the investigation, the manufacturer determined the need to replace the fiber gasket with a copper gasket. In the NPRM, the FAA proposed to require removal of the fiber gasket and replacement with a copper gasket.

The FAA is issuing this AD to address the unsafe condition on these products.

Discussion of Final Airworthiness Directive

Comments

The FAA received comments from two individual commenters. The following presents the comments received on the NPRM and the FAA's response to each comment.

Request To Broaden the Scope

One commenter compared the NPRM to a previous AD that the FAA issued in 1996, AD 96–12–22 (61 FR 30501, June 17, 1996), to address loose or separated oil filter adapters. The commenter requested that the FAA consider issuing an AD with a broader scope, such as a remote-mounted oil filter secured to the firewall, as a more permanent solution. The commenter reasoned that a remote-mounted filter would reduce the potential for accidents caused by oil starvation and power loss.

The FAA issued AD 96–12–22 to address an unsafe condition caused by adapter-to-oil pump threads fragmenting, resulting in loose or separated oil filter adapters. Like AD 96–12–22, a remote-mounted oil filter secured to the firewall is not needed to correct the unsafe condition prompting this AD, which is power loss due to oil starvation. The unsafe condition that prompted this AD was caused by failure of the fiber gasket due to improperly maintained or installed oil filter adapters. Therefore, this AD requires replacing the fiber gasket with a copper gasket.

Suggestion To Design a Better Gasket

One commenter requested that the FAA make the manufacturer design a better gasket, installed with a torque commensurate with the torqued material, such as fiber gasket material similar to the gaskets used in propeller governors. The commenter stated that the gaskets used in propeller governors are manufactured with an oil-resistant outer layer, a stainless steel mesh center layer, and an oil-resistant inner layer. The commenter reasoned that these gaskets would cover the entire sealing faces of the oil filter adapter and the oil pump, unlike the copper gasket, which uses only a portion of the sealing area.

The FAA does not agree that using fiber gasket material similar to the gaskets used in propeller governors is necessary to address the unsafe condition, which is power loss due to oil starvation. The unsafe condition that prompted this AD was caused by failure of the fiber gasket due to improperly maintained or installed oil filter adapters, not the amount of torque applied to a specific gasket material. Additionally, as part of the certification process, the manufacturer has analyzed and tested the copper gasket and found it meets the design intent.

Conclusion

The FAA reviewed the relevant data, considered any comments received, and determined that air safety requires adopting this AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on these products. This AD is adopted as proposed in the NPRM.

Related Service Information Under 1 CFR Part 51

The FAA reviewed Stratus Tool Technologies Mandatory Service Bulletin (MSB) SB–001 Rev B, dated June 17, 2021. This MSB specifies procedures for removing a fiber gasket and replacing it with a copper gasket. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in **ADDRESSES**.

Costs of Compliance

The FAA estimates that this AD affects 6,300 engines installed on airplanes of U.S. registry.

The FAA estimates the following costs to comply with this AD:

ESTIMATED COSTS

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Replace fiber gasket with copper gasket	2.5 work-hours × $85 per hour = $212.50	$34	$246.50	$1,552,950

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

(1) Is not a ''significant regulatory action'' under Executive Order 12866,

(2) Will not affect intrastate aviation in Alaska, and

(3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39—AIRWORTHINESS DIRECTIVES

■ 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

■ 2. The FAA amends § 39.13 by adding the following new airworthiness directive:

2022–04–04 Continental Aerospace Technologies, Inc. and Continental

Motors: Amendment 39–21945; Docket No. FAA–2021–0875; Project Identifier AD–2021–00675–E.

(a) Effective Date

This airworthiness directive (AD) is effective March 29, 2022.

(b) Affected ADs

None.

(c) Applicability

This AD applies to the reciprocating engine models identified in paragraphs (c)(1) and (2) of this AD with an F&M Enterprises, Inc. (F&M) or Stratus Tool Technologies, LLC (Stratus) oil filter adapter installed per Supplemental Type Certificate SE8409SW, SE09356SC, or SE10348SC.

(1) Continental Aerospace Technologies, Inc. (Type Certificate previously held by Continental Motors, Inc., and Teledyne Continental Motors) C–125–1, C–125–2, C145–2, C145–2H, IO–360–C, IO–360–D, IO–360–DB, IO–360–H, IO–360–HB, IO–360–K, IO–360–KB, IO–470–E, IO–470–S, IO–550–B, IO–550–G, O–300–B, O–300–C, O–300–D, O–300–E, O–470–A, O–470–B, O–470–G, O–470–J, O–470–K, O–470–L, O–470–M, O–470–N, O–470–R, O–470–S, O–470–U, O–470–11, O–470–15, TSIO–360–E, TSIO–360–EB, TSIO–360–F, TSIO–360–FB, TSIO–360–GB, TSIO–360–LB, TSIO–360–MB, TSIO–360–SB, TSIO–520–C, TSIO–520–CE, TSIO–520–E, and TSIO–520–UB model reciprocating engines; and

(2) Continental Motors (Type Certificate previously held by Teledyne Continental Motors) IO–520–A, IO–520–B, IO–520–BA, IO–520–BB, IO–520–C, IO–520–D, IO–520–J, and IO–520–L model reciprocating engines.

(d) Subject

Joint Aircraft System Component (JASC) Code 8550, Reciprocating Engine Oil System.

(e) Unsafe Condition

This AD was prompted by reports of two accidents that were the result of power loss due to oil starvation. The FAA is issuing this AD to prevent loss of engine power. The unsafe condition, if not addressed, could result in failure of the engine, in-flight shutdown, and loss of control of the aircraft.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions

Before accumulating 50 flight hours after the effective date of this AD or at the next scheduled oil change after the effective date of this AD, whichever occurs first, remove any F&M or Stratus oil filter adapter fiber gasket from service and replace it with a Stratus AN900–28 or AN900–29 oil filter adapter copper gasket in accordance with the Compliance Instructions, paragraph 6., pages 7 through 10 (including all detailed instructions for Figure 5 through Figure 16), of Stratus Tool Technologies Mandatory Service Bulletin SB–001 Rev B, dated June 17, 2021.

(h) Installation Prohibition

After the effective date of this AD, do not install or reuse an F&M or Stratus oil filter adapter fiber gasket in any F&M or Stratus Tool Technologies oil filter adapter.

(i) Special Flight Permit

A special flight permit may be issued in accordance with 14 CFR 21.197 and 21.199 to permit a one-time non-revenue ferry flight to operate the airplane to a location where the maintenance action can be performed.

(j) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Atlanta ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (k) of this AD.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(k) Related Information

For more information about this AD, contact George Hanlin, Aviation Safety Engineer, Atlanta ACO, FAA, 1701 Columbia Avenue, College Park, GA 30337; phone: (404) 474–5584; fax: (404) 474–5605; email: *george.hanlin@faa.gov*.

(l) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Stratus Tool Technologies Mandatory Service Bulletin SB–001 Rev B, dated June 17, 2021.

(ii) [Reserved]

(3) For Stratus Tool Technologies, LLC service information identified in this AD, contact Stratus Tool Technologies, LLC, 2208 Air Park Drive, Burlington, NC 27215; phone: (800) 822–3200; website: *https://www.tempestplus.com.*

(4) You may view this service information at FAA, Airworthiness Products Section, Operational Safety Branch, 1200 District Avenue, Burlington, MA 01803. For information on the availability of this material at the FAA, call (817) 222–5110.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email: *fr.inspection@nara.gov,* or go to: *https://www.archives.gov/federal-register/cfr/ibr-locations.html.*

Issued on February 4, 2022.

Lance T. Gant,

Director, Compliance & Airworthiness Division, Aircraft Certification Service.

[FR Doc. 2022–03640 Filed 2–18–22; 8:45 am]

BILLING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA–2021–1015; Project Identifier 2019–CE–014–AD; Amendment 39–21942; AD 2022–04–01]

RIN 2120–AA64

Airworthiness Directives; DG Flugzeugbau GmbH and Schempp-Hirth Flugzeugbau GmbH Gliders

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for DG Flugzeugbau GmbH Model DG–1000T gliders and Schempp-Hirth Flugzeugbau GmbH Model Duo Discus T gliders with a Solo Kleinmotoren GmbH Solo Model 2350C or 2350D engine installed. This AD was prompted by mandatory continuing airworthiness information (MCAI) issued by the aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as failure of the bearing of the upper pulley of the belt driven reduction gear resulting in separation of the propeller from the engine. This AD requires replacing a certain hex-nut and establishing a life limit for the ball bearing assembly. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective March 29, 2022.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of March 29, 2022.

ADDRESSES: For service information identified in this final rule, contact Solo Kleinmotoren GmbH, Postfach 600152, D71050 Sindelfingen, Germany; phone: +49 703 1301–0; fax: +49 703 1301–136; email: *aircraft@solo-germany.com*; website: *http://aircraft.solo-online.com.* You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 901 Locust, Kansas City, MO 64106. For information on the availability of this material at the FAA, call (817) 222–5110. It is also available at *https://*

www.regulations.gov by searching for and locating Docket No. FAA–2021–1015.

Examining the AD Docket

You may examine the AD docket at *https://www.regulations.gov* by searching for and locating Docket No. FAA–2021–1015; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the MCAI, any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M–30, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue SE, Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Jim Rutherford, Aviation Safety Engineer, General Aviation & Rotorcraft Section, International Validation Branch, FAA, 901 Locust, Room 301, Kansas City, MO 64106; phone: (816) 329–4165; email: *jim.rutherford@faa.gov*.

SUPPLEMENTARY INFORMATION:

Background

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to DG Flugzeugbau GmbH Model DG–1000T gliders and Schempp-Hirth Flugzeugbau GmbH Model Duo Discus T gliders with a Solo Kleinmotoren GmbH Solo Model 2350C or 2350D engine, all serial numbers, installed. The NPRM published in the **Federal Register** on December 1, 2021 (86 FR 68168). The NPRM was prompted by MCAI originated by the European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union. EASA issued EASA AD 2019–0029, dated February 8, 2019 (referred to after this as ''the MCAI''), to address an unsafe condition on Solo Kleinmotoren GmbH Solo Model 2350B, 2350BS, 2350C, and 2350D engines. The MCAI states:

> An occurrence was reported of failure of the bearing of the upper pulley of the belt driven reduction gear, resulting in separation of the propeller from the engine.
>
> This condition, if not corrected, could lead to similar occurrences, with possible reduced control of, and damage to, the aircraft.
>
> To address this potential unsafe condition, Solo redesigned the nut securing the pulley bearing on the axle and introduced a life time limit of 15 years for the reduction gear bearings.
>
> For the reason stated above, this [EASA] AD requires replacement of affected parts with serviceable parts, and introduces a life limit for the affected ball bearings.

You may examine the MCAI in the AD docket at *https://www.regulations.gov* by searching for and locating Docket No. FAA–2021–1015.

Comments

The FAA received no comments on the NPRM or on the determination of the costs.

Conclusion

This product has been approved by the aviation authority of another country and is approved for operation in the United States. Pursuant to the FAA's bilateral agreement with this State of Design Authority, it has notified the FAA of the unsafe condition described in the MCAI referenced above. The FAA reviewed the relevant data and determined that air safety requires adopting this AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on these products. This AD is adopted as proposed in the NPRM.

Related Service Information Under 1 CFR Part 51

The FAA reviewed Solo Kleinmotoren GmbH Service Bulletin 4603–18, dated January 22, 2019. The service information specifies procedures for replacing the hex-nut at the excentric axle and the ball bearing assemblies at the bearing block of the reduction gear. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in **ADDRESSES**.

Differences Between This AD and the MCAI or Service Information

The MCAI applies to Solo Kleinmotoren GmbH Solo Model 2350B, 2350BS, 2350C, and 2350D engines. None of these model engines have an FAA engine type certificate. However, Model 2350C and Model 2350D engines are certificated by the FAA with the type certificate for certain gliders. This AD does not apply to Solo Kleinmotoren GmbH Solo Model 2350B and 2350BS engines because they are not part of an FAA glider type design.

The MCAI requires replacing an affected ball bearing assembly before it accumulates 15 years since first installation on an engine. This AD requires replacing both ball bearing assemblies simultaneously before either accumulates 15 years since first installation on an engine.

Costs of Compliance

The FAA estimates that this AD affects 10 gliders of U.S. registry. The FAA estimates that for gliders with an affected hex-nut, replacement would take about 0.5 work-hour and require a part costing $95. The average labor rate is $85 per work-hour. Based on these figures, the FAA estimates the cost to replace the hex-nut on U.S. operators to be $1,380 (assuming all 10 gliders have this configuration) or $138 per glider.

In addition, the FAA estimates that for gliders with the affected ball bearing assemblies, replacement would take about 4 work-hours for both ball bearing assemblies and require ball bearing assemblies costing $118 (2 units). The average labor rate is $85 per work-hour. Based on these figures, the FAA estimates the cost of the ball bearing assembly replacement on U.S. operators to be $4,580 (assuming all 10 gliders have this configuration) or $458 per glider.

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this AD:

(1) Is not a ''significant regulatory action'' under Executive Order 12866,

(2) Will not affect intrastate aviation in Alaska, and

(3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39—AIRWORTHINESS DIRECTIVES

■ 1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

■ 2. The FAA amends § 39.13 by adding the following new airworthiness directive:

2022–04–01 DG Flugzeugbau GmbH and Schempp-Hirth Flugzeugbau GmbH Gliders: Amendment 39–21942; Docket No. FAA–2021–1015; Project Identifier 2019–CE–014–AD.

(a) Effective Date

This airworthiness directive (AD) is effective March 29, 2022.

(b) Affected ADs

None.

(c) Applicability

This AD applies to DG Flugzeugbau GmbH Model DG–1000T gliders and Schempp-Hirth Flugzeugbau GmbH Model Duo Discus T gliders, certificated in any category, with a Solo Kleinmotoren GmbH Solo Model 2350C or 2350D engine, all serial numbers, installed.

(d) Subject

Joint Aircraft System Component (JASC) Code 7200, Engine (Turbine/Turboprop).

(e) Unsafe Condition

This AD was prompted by mandatory continuing airworthiness information (MCAI) issued by the aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as failure of the bearing of the upper pulley of the belt driven reduction gear. The FAA is issuing this AD to prevent separation of the propeller from the engine. The unsafe condition, if not addressed, could result in loss of control of the glider.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Actions and Compliance

(1) Within 12 months after the effective date of this AD, remove the nut installed at the excentric axle from service and replace it with a nut in accordance with the Condition section, paragraph a), of Solo Kleinmotoren GmbH Service Bulletin 4603–18, dated January 22, 2019.

(2) Before either ball bearing assembly at the bearing block of the reduction gear accumulates 15 years since first installation on an engine or within 12 months after the effective date of this AD, whichever occurs later, and thereafter at intervals not to exceed 15 years, remove both ball bearing assemblies from service and replace with new (zero hours time-in-service) ball bearing assemblies in accordance with the Condition section, paragraph b), of Solo Kleinmotoren GmbH Service Bulletin 4603–18, dated January 22, 2019.

(3) After replacing the ball bearing assemblies required by paragraph (g)(2) of this AD, record compliance in the aircraft log book. The entry must include: (1) Reduction gear part number (P/N) and serial number; and (2) date ball bearing assemblies were replaced.

(4) As of the effective date of this AD, do not install a hex-nut P/N 0028143 on any engine.

(5) As of the effective date of this AD, do not install ball bearing assembly P/N 0050110 on any engine unless it is new (zero hours time-in-service).

(h) Alternative Methods of Compliance (AMOCs)

(1) The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (i)(1) of this AD and email to: *9-AVS-AIR-730-AMOC@faa.gov.*

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(i) Related Information

(1) For more information about this AD, contact Jim Rutherford, Aviation Safety Engineer, General Aviation & Rotorcraft Section, International Validation Branch, FAA, 901 Locust, Room 301, Kansas City, MO 64106; phone: (816) 329–4165; email: *jim.rutherford@faa.gov.*

(2) Refer to European Aviation Safety Agency (EASA) AD 2019–0029, dated February 8, 2019, for more information. You may examine the EASA AD in the AD docket at *https://www.regulations.gov* by searching for and locating Docket No. FAA–2021–1015.

(j) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Solo Kleinmotoren GmbH Service Bulletin 4603–18, dated January 22, 2019.

Note 1 to paragraph (j)(2)(i): This service information contains German to English translation. EASA used the English translation in referencing the document from Solo Kleinmotoren GmbH. For enforceability purposes, the FAA will cite the service information in English as it appears on the document.

(ii) [Reserved]

(3) For service information identified in this AD, contact Solo Kleinmotoren GmbH, Postfach 600152, D71050 Sindelfingen, Germany; phone: +49 703 1301–0; fax: +49 703 1301–136; email: *aircraft@solo-germany.com*; website: *http://aircraft.solo-online.com.*

(4) You may view this service information at FAA, Airworthiness Products Section, Operational Safety Branch, 901 Locust, Kansas City, MO 64106. For information on the availability of this material at the FAA, call (817) 222–5110.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email: *fr.inspection@nara.gov,* or go to: *https://www.archives.gov/federal-register/cfr/ibr-locations.html.*

Issued on February 1, 2022.

Lance T. Gant,

Director, Compliance & Airworthiness Division, Aircraft Certification Service.

[FR Doc. 2022–03591 Filed 2–18–22; 8:45 am]

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DEPARTMENT OF HOMELAND SECURITY

U.S. Customs and Border Protection

DEPARTMENT OF THE TREASURY

19 CFR Part 12

[CBP Dec. 22–04]

RIN 1515–AE72

Emergency Import Restrictions Imposed on Archaeological and Ethnological Material of Afghanistan

AGENCY: U.S. Customs and Border Protection, Department of Homeland Security; Department of the Treasury.

ACTION: Final rule.

SUMMARY: This document amends the U.S. Customs and Border Protection (CBP) regulations to reflect the imposition of emergency import restrictions on certain archaeological and ethnological material from Afghanistan. The Acting Assistant Secretary for Educational and Cultural Affairs, United States Department of State, determined that conditions warrant the imposition of emergency restrictions on categories of archaeological material and ethnological material of the cultural heritage of Afghanistan. This document contains

the Designated List of Archaeological and Ethnological Material of Afghanistan that describes the types of objects or categories of archaeological and ethnological material to which the import restrictions apply. The emergency import restrictions imposed on certain archaeological and ethnological material of Afghanistan will be in effect until April 28, 2026, unless extended. These restrictions are being imposed pursuant to determinations of the United States Department of State made under the terms of the Convention on Cultural Property Implementation Act.

DATES: Effective on February 18, 2022.

FOR FURTHER INFORMATION CONTACT: For legal aspects, W. Richmond Beevers, Chief, Cargo Security, Carriers and Restricted Merchandise Branch, Regulations and Rulings, Office of Trade, (202) 325–0084, *otrculturalproperty@cbp.dhs.gov.* For operational aspects, Julie L. Stoeber, Chief, 1USG Branch, Trade Policy and Programs, Office of Trade, (202) 945–7064, *1USGBranch@cbp.dhs.gov.*

SUPPLEMENTARY INFORMATION:

Background

The Convention on Cultural Property Implementation Act, Public Law 97–446, 19 U.S.C. 2601 *et seq.* (hereinafter, ''the Cultural Property Implementation Act'' or ''Act''), implements the 1970 United Nations Educational, Scientific and Cultural Organization (UNESCO) Convention on the Means of Prohibiting and Preventing the Illicit Import, Export and Transfer of Ownership of Cultural Property (hereinafter, ''the Convention'' (823 U.N.T.S. 231 (1972)). Pursuant to the Cultural Property Implementation Act, the United States may enter into international agreements with another State Party to the Convention to impose import restrictions on eligible archaeological and ethnological material under procedures and requirements prescribed by the Act. Under certain limited circumstances, the Cultural Property Implementation Act authorizes the imposition of import restrictions on an emergency basis (19 U.S.C. 2603).

Pursuant to 19 U.S.C. 2602(a), on April 28, 2021, Afghanistan, a State Party to the Convention, requested that import restrictions be imposed on certain archaeological and ethnological material, the pillage of which jeopardizes the cultural heritage of Afghanistan. The Cultural Property Implementation Act authorizes the President (or designee) to apply import restrictions on an emergency basis if the President determines that an emergency condition applies with respect to any archaeological or ethnological material of any requesting State Party (19 U.S.C. 2603). The emergency restrictions are effective for no more than five years from the date of the State Party's request and may be extended for three years where it is determined that the emergency condition continues to apply with respect to the covered material (19 U.S.C. 2603(c)(3)). These restrictions may also be continued pursuant to an agreement concluded within the meaning of the Act (19 U.S.C. 2603(c)(4)).

On November 16, 2021, the Acting Assistant Secretary for Educational and Cultural Affairs, United States Department of State, after consultation with and recommendation by the Cultural Property Advisory Committee, made the determinations necessary under the Act for the emergency imposition of import restrictions on certain archaeological material and ethnological material of the cultural heritage of Afghanistan. The Designated List below sets forth the categories of material to which the import restrictions apply. Thus, U.S. Customs and Border Protection (CBP) is amending § 12.104g(b) of title 19 of the Code of Federal Regulations (19 CFR 12.104g(b)) accordingly.

Importation of covered material from Afghanistan will be restricted until April 28, 2026, unless the conditions set forth in 19 U.S.C. 2606 and 19 CFR 12.104c are met.

Designated List of Archaeological and Ethnological Material of Afghanistan

The Designated List includes archaeological and ethnological material sourced from Afghanistan. Archaeological material ranges in date from the Paleolithic (50,000 B.C.) through the beginning of the Durrani Dynasty (A.D. 1747). Ethnological material includes architectural objects and wooden objects associated with Afghanistan's diverse history, from the 9th century A.D. through A.D. 1920. The Designated List set forth is representative only. Any dates and dimensions are approximate. The list is inclusive of yet-to-be-discovered styles and types.

Categories of Archaeological and Ethnological Material

I. Archaeological Material
- A. Stone
- B. Ceramics, Faience, and Fired Clay
- C. Metal
- D. Plaster, Stucco, and Unfired Clay
- E. Painting
- F. Ivory and Bone
- G. Glass
- H. Leather, Birch Bark, Vellum, Parchment, and Paper
- I. Textiles
- J. Wood, Shell, and other Organic Material
- K. Human Remains

II. Ethnological Material
- A. Stone, Brick, Plaster, and Stucco
- B. Tiles
- C. Stained Glass
- D. Wood

Approximate simplified chronology of well-known periods:
- (a) Paleolithic to Chalcolithic (c. 50,000–3000 B.C.)
- (b) Bronze Age (3000–1000 B.C.)
- (c) Achaemenid Period (c. 6th century–330 B.C.)
- (d) Mauryan Empire (c. 304–232 B.C.)
- (e) Hellenistic Empire and Greco-Bactrian Kingdom (330 B.C.–c. A.D. 10)
- (f) Kushan Empire (c. 2nd century B.C.–3rd century A.D.)
- (g) Persian Sassanid Empire and Hepthalite Conquest (A.D. 224–651)
- (h) Gandharan Period (c. 300 B.C.–A.D. 1200)
- (i) Ghaznavid Empire (A.D. 962–1186)
- (j) Ghurid Empire (A.D. 1148–1202)
- (k) Timurid and Mughal Empire (A.D. 1370–A.D. early 18th century)
- (l) Durrani Dynasty (A.D. 1747 [1]–1826)
- (m) Dost Mohammed and Anglo-Afghan Wars (A.D. 1826–1880)
- (n) Modern Afghanistan (A.D. 1880–Present) [2]

I. Archaeological Material

A. Stone

1. Architectural Elements—Primarily in alabaster, limestone, marble, steatite schist and other types of stone. Category includes, but is not limited to, bricks and blocks from walls, ceilings, and floors; columns; door frames; false gables; friezes; lintels; mihrabs; minarets; niches; pillars; plinths; qiblas; and so on. These architectural elements may be plain, molded, carved, or inscribed in various languages and scripts. Decorative elements on architectural elements may be in high or low relief. Architectural elements may include relief and inlay sculptures that were part of a building (*e.g.,* mausoleums, mosques, minarets, palaces, religious structures, public buildings, stupas, and others) such as friezes, panels, or stone figures. Architectural elements may have religious imagery or have been part of religious structures. For example, Gandharan and Kushan Period styles may include images of the Buddha, scenes from the life of the Buddha, Bodhisattvas, and other human figures, as well as animals, columns, and floral, geometric, and/or vegetal motifs. Other examples may include architectural

[1] *Note:* Import restrictions concerning archaeological material apply only to those objects dating to A.D. 1747 and earlier.

[2] *Note:* Import restrictions concerning ethnological material apply only to those objects that are 100 years old or older.

elements with images of Hindu deities and figures, or Zoroastrian images. Architectural elements carved in stone from Islamic periods may include inscriptions in multiple languages and scripts. Stone architectural elements were common across many periods in Afghanistan's history. Approximate date: 330 B.C.–A.D. 1747.

2. Non-Architectural Relief Sculpture—Primarily in alabaster, limestone, marble, steatite schist, and other types of stone. Types include, but are not limited to, carved bases, ceiling decoration, funerary headstones and monuments, fountains, monoliths niches, plaques, roundels, slabs, sundials, and stelae bases. Decorative elements may be in high- or low-relief and may include animal and/or human forms as well as floral, geometric, and/or vegetal motifs. Includes edicts and rock pillars with inscriptions in low relief. Inscriptions may be in multiple languages and scripts. Approximate date: 330 B.C.–A.D. 1747.

3. Large Statuary—Primarily in grey schist, gypsum, and marble. Statuary includes human figures, which are often seated or standing. Heads and other figurative elements may be used in high- or low-relief statues. Large statuary of human figures is primarily associated with the Hellenistic Empire and Greco-Bactrian Kingdom through the Gandharan Periods. Also includes statuary of Hindu deities, figures, and images, often dated from the 7th century A.D. onward. Approximate date: 330 B.C.–A.D. 1200.

4. Small Statuary—Primarily in alabaster, calcite, chlorite, dolomite, jasper, limestone, marble, and steatite; primarily free standing; may have been shaped by carving, incision, grinding, polishing, or other techniques. Animal and human forms tend to be stylized. Includes game pieces. Small statuary is found throughout many archaeological periods from the Bronze Age onward, but representative styles are from the Bactrian and Sassanian periods. Approximate date: 2100 B.C.–A.D. 1200.

a. Bactrian figurative statuary is often made of more than one type of stone, often chlorite or steatite, with limestone. Bactrian statues are in anthropomorphic forms, primarily female, and are elaborately carved and/or incised. Forms tend to be abstract and stylized, with armless bodies and legs, and a small protruding head. Heads tend to be small and carved in white limestone. Often in a seated or squatting position. Zoomorphic forms are also included and are often in a squatting or coiled position. Sizes vary, but are typically 14 cm tall. Approximate date: 3rd–2nd millennium B.C.

b. Non-figurative Bactrian statuary includes types such as columns, pillars, or column idols, and discs or disc idols. Column and disc statues have a smooth finish. Columns may have an elongated and/or tapered form with a wider base than at top. Column sizes vary, but typically range from 28–40 cm high and 10–20 cm wide. Discs may have an incision or groove through the center. Disc sizes vary, but typically range from 20–30 cm wide. Approximate date: 3rd–2nd millennium B.C.

c. Sassanian statuary includes animal and human figures shaped by carving, grinding, and/or polishing. Figures tend to be stylized. May have been used for a variety of purposes including, small statuary possibly used as gaming pieces. Approximate date: A.D. 200–700.

5. Vessels and Containers—Primarily in alabaster, chlorite, porphyry, rock crystal, and steatite schist. Vessel types may be conventional shapes such as amphora, bowls, cups, cylindrical vessels, flacons, jars, jugs, lamps, platters, pyxides, flasks, and trays, and may also include cosmetic containers, reliquaries (and their contents), and incense burners. Some drinking vessels (rhytons) may be in the shape of an animal or mythical creature carved into the ventral end. Surfaces may have incised geometric or vegetal decoration, incised script in multiple languages, and/or be polished. Some stone vessels and containers have no surface decoration. Includes vessel lids.

6. Tools, Instruments, and Weights—Includes groundstone and flaked stone tools.

a. Groundstone tools, instruments, and weights are mainly made from diorite, granite, marble, limestone, or quartz, but other types of stone are included. Types of groundstone tools include balls, batons, maces, palates, pestles, scrapers, scepters, and others. Includes spindle whorls and weights. Ends of batons and scepters may be carved or shaped and are approximately 50 cm to 2 m in length. Stone weights can be shaped or ground into various forms including balls, cubes, handbags, pyramids, rings, or teardrop shapes; may be polished; and may be decorated with incisions or inscriptions in multiple languages. Stone weights typically vary from 20 to 30 cm. Stone tools used to polish, shape, or sharpen other tools are included.

b. Flaked stone tools are primarily made of chert or other cryptocrystalline silicates, flint, limestone, obsidian, quartzite, schist, and others. Flaked stone tool types include axes, bifaces, blades, choppers, cores, hammers, microliths, projectiles, scrapers, sickles, unifaces, and others. Also includes tools like hammerstones and anvils used to create flaked stone tools.

7. Beads and Jewelry—Primarily in agate, amber, carnelian, cryptocrystalline silicates, garnet, lapis lazuli, onyx, turquoise, quartz, or other semi-precious materials. Beads may be carved, cut, drilled, ground, and/or polished. Beads include animal, conical, cylindrical, disc, faceted, tear drop, spherical, and other shapes. May be inscriptions in multiple types of languages and scripts. Jewelry includes amulet, amulet cases, bracelets, necklaces, rings, and other types.

8. Stamps and Seals—Primarily in agate, amethyst, chalcedony, hematite, jasper, rock crystal, steatite, or other types of stone. Stamps and seals may have engravings that include animals, human figures, geometric designs, inscriptions in various languages and scripts, and/or floral/vegetal motifs. Approximate date: 4th century B.C.–A.D. 1500.

9. Furniture— Primarily in agate, steatite, turquoise, or other semi-precious stones. Includes furniture and furniture hardware such as inlay, fragments of inlay, fasteners, handles, knobs, and roundels.

B. *Ceramics, Faience, and Fired Clay*

1. Statuary—Includes small and large-scale ceramic and terracotta statuary. May be in animal, human, hybrid animal/human, and mythological forms. Imagery may be religious. Objects may be associated with religious activity, games, or toys. May have traces of paint or pigment. Forms may be stylized or naturalized statuary depending on the time period. Stylized forms are associated with the Neolithic and Sassanian periods, while naturalized forms are associated with the Greco-Bactrian and Gandharan period onward. Approximate date: 9000 B.C.—A.D. 1747.

2. Architectural Elements—Includes terracotta antefixes, niches, panels, tiles, and other elements used as functional or decorative elements in buildings and mosaics. Terracotta panels may be painted or have traces of paint. Terracotta tiles may be painted or unpainted. Mosaic designs often include animals, humans, floral, geometric, and/or vegetal motifs. Tiles may be carved or have impressed or molded images of animals, humans, floral, geometric, and/or vegetal motifs for decorative relief. Imagery may be religious. Includes bricks, pipes, and other architectural elements from archaeological contexts. Approximate date: 330 B.C.–A.D. 1747.

3. Vessels—Includes utilitarian types, fine tableware, incense burners, cosmetic containers, funerary urns,

lamps, and other ceramic objects of everyday use.

a. Neolithic—Includes earthenware vessels. Vessel types include bowls, cups, goblets, jars, vases, and other forms. Often painted with animal design; floral, geometric, and/or vegetal motifs (*e.g.,* pipal leaves). Approximate date: 9000–2400 B.C.

b. Bronze Age through pre-Islamic Periods—Includes earthenware vessels that may have a pink, peach, orange, or grey core. Vessel types include conventional shapes such as basins, beakers, bottles, bowls, jars, pitchers, storage vessels, vases, as well other forms such as cosmetic jars, lamps, stands, and table amphorae. Vessel forms may have pedestalled bases and/or handles. Surface treatments may include slip, painting, and/or burnishing/polishing. Decorative techniques include incised and impressed decorations, including grooving, roulette, stamping, and other techniques. Stamps used for decoration range from simple geometric patterns to rosettes to elaborate scenes combining animal, floral, geometric, and/or vegetal designs. Some vessels may have elaborate shapes created using molds. High-relief surface decorative techniques may include affixing molded animal heads or rosettes to the exterior surface of a vessel. Examples include Greco-Bactrian vessels that range from plain to having multiple types of surface treatment and decorative techniques. Begram vessels may have intricate human/animal hybrid shapes molded into the vessel exterior. Some Sassanian vessel forms may have uniformly glazed ceramics in green, blue-green, or yellow glazes, while utilitarian forms may be unglazed. Includes lids of ceramic vessels. Approximate date: 3000 B.C.–A.D. 1000.

c. Islamic Periods—Includes earthenware vessels (often red and buff) and porcelain. Vessel types may form conventional shapes such as bowls, cups, ewers, flasks, jars, jugs, platters, trays, and other types such as fire blowers (aeolipipes), incense burners, footed vessels, and zoomorphic shapes. May be hand-built, molded, or wheel thrown. Surface treatments may include slip, polishing, burnishing, and others. Vessels may have slip and paint. Other decorative techniques include incisions (sgraffito), often in floral, geometric, and/or vegetal designs; and inscriptions in multiple languages and scripts. Animal and human forms may be stylized. Vessels may have colorless lead, monochrome, or polychrome glazing. Vessels may be colorful. Common colors include green, yellow, blue, tomato red, purplish black, turquoise, and white. Imported types include celadons and blue-and-white porcelain from China; fritware, earthenware, and copies of Chinese ceramics from Iran; and glazed ceramics from Uzbekistan. Includes lids of ceramic vessels. Approximate date: A.D. 1000–1747.

4. Islamic Period Tiles—Includes glazed tiles and bricks used to decorate civic and religious architecture. Tiles are mostly square, but some are polygonal. Types may be molded and glazed in monochrome or polychrome. Turquoise and manganese are commonly used for glazing. Some tiles can be molded with decoration, with low- and high-relief techniques. Decorative molding may be in floral, geometric, or vegetal motifs; may have animal imagery. May have inscriptions in multiple languages and scripts. Includes glazed bricks. Approximate date: A.D. 1000–1747

C. *Metal*—Includes copper, gold, silver, iron, electrum, and alloys of copper, tin, lead, and zinc. Metal objects may have been created using different techniques such as casting, chasing, gilding or repoussé. Approximate date: 3000 B.C.–A.D. 1750.

1. Containers and Vessels—Vessel types may form conventional shapes such as basins, bowls, cauldrons, cups, dishes, ewers, flacons, jars, jugs, lamps, platters, stands, table ornaments, and utensils, and also may be cosmetic containers, incense burners, medicine droppers, reliquaries (and their contents), spouted vessels, and tripod stands. Some drinking vessels (rhytons) may be in the shape of an animal or mythical creature carved into the ventral end. Some styles may have lids and/or handles. Metal containers may be cast and turned, chased, engraved, gilt, and/or punched. Decorative styles include, but are not limited to, animals, arabesque motifs, inscriptions in different languages, floral motifs, geometric motifs, vegetal motifs. Some types of containers and vessels, like reliquaries, may be inlaid with garnet, lapis lazuli, pearl, turquoise, and/or other types of semi-precious stone as well as other types of precious metals, including gold and silver. Includes lids and handles of vessels.

2. Jewelry and Personal Adornment—Types include, but are not limited to, amulets, amulet holders, bracelets, bracteates, belts, brooches, buckles, buttons, charms, crowns, hair ornaments, hairpins, mirrors, mirror handles, necklaces, ornaments, pectoral ornaments, pendants, rings, rosettes, scale weights, staffs, and others. May be highly decorative and include inlays of other types of ivory, bone, animal teeth, metals, precious stones, or semi-precious stones. Includes metal ornaments once attached to other types of textiles or leather objects.

3. Tools and Instruments—Types include, but are not limited to, axes, bells, blades, hooks, keys, knives, pins, projectiles, rakes, sickles, spoons, staffs, trowels, weights, and tools of craftpersons such as carpenters, masons, and metal smiths. Approximate date: 3000 B.C.–A.D. 1747.

4. Weapons and Armor—Includes body armor, such as helmets, shin guards, shields, horse armor and horse bits. Launching weapons (spears and javelins); hand-to-hand combat weapons (swords, daggers); and sheaths. Some weapons may be highly decorative and include inlays of other types of metals, precious stones, or semi-precious stones in the sheaths and hilts. Approximate date: 330 B.C.–A.D. 1747.

5. Coins— Ancient coins include gold, silver, copper, and bronze coins; may be hand stamped with units ranging from tetradrachms to dinars; includes gold bun ingots and silver ingots, which may be plain and/or inscribed. Some of the most well-known types are described below:

a. The earliest coins in Afghanistan are Greek silver coins, including tetradrachms and drachmae. Approximate date: 530–333 B.C.

b. During the reign of Darius I, gold staters and silver sigloi were produced in Bactria and Gandhara. Approximate date: 586–550 B.C.

c. Achaemenid coins include round punch-marked coins with one or two punched holes and bent bar coins (*shatamana*). Approximate date: 5th century B.C.

d. Gandhara coins include *janapadas,* bent bar coins based on the silver sigloi weight. Approximate date: 4th century B.C.

e. Mauryan coins include silver *karshapanas* with five punches, six arm designs, and/or sun symbols. Weights ranged from 5.5 to 7.2 gm. Approximate date: 322–185 B.C.

f. Gold staters and silver tetradrachms were produced locally after Alexander the Great conquered the region. Approximate date: 327–323 B.C.

g. Greco-Bactrian coins include gold staters, silver tetradrachms, silver and bronze drachms, and a small number of punch-marked coins. The bust of the king with his name written in Greek and Prakit were on the obverse, and Greek deities and images of Buddha were on the reverse. Approximate date: 250–125 B.C.

h. Common Roman Imperial coins found in archaeological contexts in Afghanistan were struck in silver and

bronze. Approximate date: 1st century B.C.–4th century A.D.

i. Kushan Dynasty coins include silver tetradrachms, copper coin (Augustus type), bronze diadrachms and gold dinars. Imagery includes portrait busts of each king with his emblem (*tamgha)* on both sides. Classical Greek and Zoroastrian deities and images of the Buddha are depicted on the reverse. Approximate date: A.D. 19–230.

j. Sassanian coins include silver drachms, silver half drachms, obols (*dang),* copper drahms and gold dinars, and gold coins of Shapur II (A.D. 309–379). Starting with Peroz I, mint indication was included on the coins. Sassanian coins may include imagery of Zoroastrian Fire Temples. Approximate date: A.D. 224–651.

k. Hephthalite coins include silver drachms, silver dinars, and small copper and bronze coins. The designs were the same as Sassanian, but they did not put the rulers' names on the coins. Hephthalite coins may include imagery of Zoroastrian Fire Temples. Approximate date: 5th–8th centuries A.D.

l. Turk Shahis coins include silver and copper drachma with portraits of the rulers wearing a distinctive triple crescent crown. The emblems of these Buddhist Turks were also included on the coin. Inscriptions were in Bactrian. Approximate date: A.D. 665–850.

m. Shahiya or Shahis of Kabul coins include silver, bronze, and copper drachma with inscriptions of military and chief commanders. Hindu imagery is included on the coin design. The two main types of images are the bull and horseman and the elephant and lion. Approximate date: A.D. 565–879.

n. Chinese coins belonging primarily to the Tang Dynasty are found in archaeological contexts in Afghanistan. Approximate date: A.D. 618–907.

o. Ghaznavid coins include gold dinars with bilingual inscriptions, Islamic titles in Arabic and Sharda and images of Shiva, Nandi, and Samta Deva. Approximate date: A.D. 977–1186.

p. Ghurid coins include silver and gold tangas with inscriptions and abstract goddess iconography. Approximate date: A.D. 879–1215.

q. Timurid coins include silver and copper tangas and copper dinars, both coin types are decorated with Arabic inscriptions. Approximate date: A.D. 1370 –1507.

r. Mughal coins include shahrukhi, gold mithqal, gold mohur, silver rupee, copper dams, and copper falus. The iconography varies, depending on the ruler, but popular designs include images of the Hindu deities Sita and Ram, portrait busts of the rulers, and the twelve zodiac signs. Approximate date: A.D. 1526–1857.

6. Ceremonial Objects—Includes highly decorative axes, staffs, swords, and other types of implements. While the forms may be similar to utilitarian objects, ceremonial objects are too decorative to have been used as everyday tools. Approximate date: 3000 B.C.–A.D. 1747.

7. Statuary, Ornaments, and other Relief Sculpture—Primarily in copper, gold, silver, bronze, or alloys of copper, tin lead, and zinc. Includes free-standing or supported statuary; relief plaques or tablets; votive ornaments; and other ornaments. Decoration may include humans, animals, mythological figures (*e.g.,* griffins or horned lions), and/or scenes of activity. Plaques or tablets may have been cast, chased, and/or embossed. Plaques and tablets may have inlay of other types of material. Statuary includes objects fashioned as humans, animals, or mythological figures; miniature chariots; wheeled carts; and other types of objects. Decorative elements may include floral, geometric, or vegetal motifs; inscriptions in multiple languages or scripts. Statuary includes naturalized and stylized forms.

8. Stamps and Seals—Primarily in cast bronze, and alloys of copper, tin, lead, and zinc; includes stamps and seals in gold or silver. Types include amulets, rings, small devices with engraving on one side, and others. Stamps and seals may have engravings that include animals, human figures, geometric designs, inscriptions in various languages and scripts, and/or floral/vegetal motifs. May have inlay of other types of material. Approximate date: 4th century B.C.–A.D. 1500.

D. *Plaster, Stucco, and Unfired Clay*—Includes animal figures, columns, human figures, reliefs, medallions, ornaments, panels, plaques, roundels, window screens, and other architectural and non-architectural decoration or sculpture. There may be traces of paint, gilding, and/or inscriptions in multiple languages and scripts. Stucco panels may have elaborate scenes of animals and human activity (such as hunting or elite activity) and/or floral, geometric, and vegetal patterns. Stucco panels may have been made with molds. Stucco figures and objects may have strong resemblance to Hellenistic styles. Painted clay objects are often represented as single individuals, such as a Buddha, Bodhisattva, or a male or female patron of a religious complex. Unfired clay roundels with stamped impressions used as sealing material are included.

E. *Painting*—Includes wall painting and fragments, often having a white base coat on ground clay mixed with small stones and vegetal matter; color is often applied in thin pigments in primary colors; figures are often outlined in black. Subjects vary, but images of Buddha figures and mandalas are common.

F. *Ivory and Bone*

1. Non-Architectural Relief Panels and Plaques—Highly and elaborately decorated and engraved panels and plaques with low- and high-relief carvings. May include imagery of humans, animals, and human activity; floral, geometric, and/or vegetal designs. Begram ivory panels are a typical example. Approximate date: 1st century A.D.

2. Statuary—Includes carved animal and human figures. Floral, geometric, and/or vegetal decorative elements may be part of the carved design. May be in low- or high-relief. Begram Ivory figurines are an example.

3. Containers, Handles, and other Non-Architectural Objects—Includes buckles, buttons, combs, game die, handles on daggers, mirrors, pins, and other personal objects.

4. Furniture—Includes arms, brackets, handles, finials, footstools, and legs in chairs, chests, trunks, and other types of furniture.

G. *Glass*

1. Architectural Elements—Mosaics and stained glass with various designs and colors. May be part of large designs with floral, geometric, and/or vegetal motifs; often with religious imagery. Includes glass inlay used in architectural elements. Approximate date: 1st century A.D.–A.D. 1747.

2. Beads/Jewelry—Includes beads that may be cylindrical, spherical, conical, disc, and others. Decorations may include bevels, incisions, and/or raised decoration. Includes glass inlay used in other types of beads and/or jewelry. Approximate date: 1st century A.D.–A.D. 1747.

3. Vessels—Vessel types may form conventional shapes such as beakers, bowls, cups, dishes, flasks, goblets, jars, mugs, perfume bottles, and vases, and other shapes such as cosmetic containers, lamps, medicine droppers, and others. Flasks and drinking vessels may be shaped as animals or fish. Some vessel types may have been blown into molds. May have decorative elements of high-relief including honeycomb patterns and waves. May be monochrome or polychrome. Some polychrome glass vessels are elaborately colored and decorated with animals, humans, human activity; floral, geometric, and vegetal designs. Some

polychrome glass vessels may have been elaborately painted with scenes of humans, animals, and/or scenes of human activity or have traces of paint. Vessels created and molded using mosaic techniques are included. Approximate date: 1st century A.D.–A.D. 1747.

4. Ornaments—Includes glass medallions. May have molded decorations including, but not limited to, animals, humans, floral, geometric, and vegetal motifs. Typically associated with the Ghaznavid and Ghurid periods. Approximate date: A.D. 1000–1200.

H. *Leather, Birch Bark, Velum, Parchment, and Paper*

1. Books and Manuscripts—Includes scrolls, sheets, or bound volumes. Includes secular and religious texts. Text may be written on birch bark, velum, parchment, or paper, and may be gathered into leather bindings or folios. Calligraphy is written in ink. Books and manuscripts are written in multiple languages and scripts, but Arabic and Persian are most common. Books and manuscripts may be further embellished or decorated with colorful floral, geometric, or vegetal motifs; images of animals; images of humans and human activity. Decoration, embellishment, illumination, and/or painting may have been added after the text was written. Occasionally, there are portraits or illustrations of single figures. May be in miniature form. Timurid period manuscript types are typically highly colorful with polychrome decoration, embellishment, illumination, and/or painting. Approximate date: 1st century A.D.–A.D. 1750.

2. Items of Personal Adornment—Primarily in leather, including bracelets, belts, necklaces, sandals, shoes, and other types of jewelry. May be embroidered or embellished with other types of materials. Leather goods may have also been used in conjunction with other types of textiles.

I. *Textiles*—Includes silk, linen, cotton, hemp, wool, damasee, samit, other woven materials used in basketry and other household goods; clothing, shoes, jewelry, and items of personal adornment; burial shrouds; tent coverings and domestic textiles; carpets; and others. Decorative techniques may include embroidery with various motifs, including, but not limited to, animals, floral, geometric, and vegetal motifs or textiles may be undecorated. May have patterns woven into the body of the textile. Gold or silver threads may be woven into other fabrics, for example in samit textiles. May have traces of paint. Approximate date: 1st century A.D.–A.D. 1747.

J. *Wood, Shell, and other Organic Material*—Includes architectural pieces made from wood; statuary and figurines; furniture; jewelry and other items of personal adornment; musical instruments; vessels and containers; and engraved stamps and seals from archaeological contexts.

K. *Human Remains*—Human remains and fragments of human remains, including skeletal remains, soft tissue, and ash from the human body that may be preserved in burial, reliquaries, and other contexts.

II. Ethnological Material

A. Stone, brick, plaster, and stucco—Primarily in brick, plaster, stone (*e.g.,* alabaster, limestone, marble, steatite schist), and stucco. Includes structural elements such as bricks and blocks from walls, ceilings, and floors; columns; door frames; false gables; friezes; jalis; lintels; mihrabs; minarets; niches; pillars; plinths; qiblas; and others. Also includes decorative elements such as carved bases, ceiling decoration, funerary headstones and monuments, fountains, monoliths, niches, plaques, roundels, slabs, and stelae bases. May be plain, molded, carved, or inscribed in various languages and scripts. Decorative elements may be in high- or low-relief. Architectural elements may include relief and inlay sculptures that were part of a building (*e.g.,* mausoleums, mosques, minarets, palaces, religious structures, public buildings, royal buildings, shrines, stupas, and others), such as friezes, panels, or stone figures. Architectural elements may have religious imagery or may have been part of religious structures.

B. Tiles—Includes glazed tiles and glazed bricks used to decorate civic and religious architecture. Tiles are mostly square, but some are polygonal. Types may be molded and glazed in monochrome or polychrome. Turquoise and manganese are commonly used for glazing. Some tiles can be molded with decoration, with low- and high-relief techniques. Decorative molding may be in floral, geometric, or vegetal motifs; may have animal imagery. May have inscriptions in multiple languages and scripts.

C. Stained Glass—Stained glass is glass that is colored and arranged in various patterns, often with floral, geometric, and/or vegetal designs. Wooden dividers may separate the panels of glass. Often in the windows of religious buildings, including mosques.

D. Wood

1. Architectural elements—This type encompasses both structural and decorative elements including walls, doors, door frames, posts, lintels, jambs, finials, figural capitals, panels, veranda shutters, window fittings, window frames, balconies, minbars, mihrabs, or pieces of any of these objects. Architectural elements may be repurposed into newer and different items, such as a wood panel into a table or a door jamb into a bench. Well known examples are from the Nuristan region or date to the Timurid and Mughal period.

2. Nuristani Figures—Includes life-sized and hand-held stylized wooden figures of ancestors and deities. A small number are horse and rider types. Many have sustained damage including small holes and cracks, others may be partially defaced, and others may be cut in half for ease of transport. Approximate date: A.D. 1400 –1920.

3. Musical Instruments—Type includes stringed and percussion instruments associated with the Nuristani culture. Typically made in a variety of materials including animal hair, animal hides, cloth, nylon, and wood. Stringed instruments may have bows often crafted with horsehair or silk; may have ivory inlay; may have tuning pegs. Approximate date: A.D. 1400—1920.

References

Afghanistan: Hidden Treasures from the National Museum, Kabul, 2008, edited by Frank Hiebert and Pierre Cambon, National Geographic, Washington DC.

Afghanistan: Une Histoire Millenaire, 2002, Musee Guimet, Paris.

After Alexander: Central Asia Before Islam, 2007, Edited by Joe Cribb and Georgina Herrmann, The British Academy by Oxford University Press, Oxford.

Ancient Art from Afghanistan: Treasures of the Kabul Museum, 1966, Benjamin Rowland Jr., Asia Society, New York.

Buddhist Art of Gandhara: In the Ashmolean Museum, 2018, David Jongeward, Ashmolean Museum and University of Oxford, Oxford.

National Museum of Herat—Areia Antiqua Through Time, 2007, Ute Frank, Deutsches Archaologisches Institut Berlin, Eurasien-Abteilung.

The Monuments of Afghanistan: History, Archaeology, and Architecture, 2008, Warwick Ball, I.B. Tauris & Co Ltd, New York.

Typology and Chronology of Ceramics of Bactria, Afghanistan 600 BCE–500 CE, 2015, Charlotte Elizabeth Maxwell-Jones, University of Michigan, Ann Arbor.

Inapplicability of Notice and Delayed Effective Date

This amendment involves a foreign affairs function of the United States and is, therefore, being made without notice or public procedure (5 U.S.C. 553(a)(1)). For the same reason, a delayed effective

date is not required under 5 U.S.C. 553(d)(3).

Regulatory Flexibility Act

Because no notice of proposed rulemaking is required, the provisions of the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) do not apply.

Executive Order 12866

CBP has determined that this document is not a regulation or rule subject to the provisions of Executive Order 12866 because it pertains to a foreign affairs function of the United States, as described above, and therefore is specifically exempted by section 3(d)(2) of Executive Order 12866.

Signing Authority

This regulation is being issued in accordance with 19 CFR 0.1(a)(1) pertaining to the Secretary of the Treasury's authority (or that of his/her delegate) to approve regulations related to customs revenue functions.

Chris Magnus, the Commissioner of CBP, having reviewed and approved this document, is delegating the authority to electronically sign this document to Robert F. Altneu, who is the Director of the Regulations and Disclosure Law Division for CBP, for purposes of publication in the **Federal Register**.

List of Subjects in 19 CFR Part 12

Cultural property, Customs duties and inspection, Imports, Prohibited merchandise, Reporting and recordkeeping requirements.

Amendment to CBP Regulations

For the reasons set forth above, part 12 of title 19 of the Code of Federal Regulations (19 CFR part 12), is amended as set forth below:

PART 12—SPECIAL CLASSES OF MERCHANDISE

■ 1. The general authority citation for part 12 and the specific authority for § 12.104g continue to read as follows:

Authority: 5 U.S.C. 301; 19 U.S.C. 66, 1202 (General Note 3(i), Harmonized Tariff Schedule of the United States (HTSUS)), 1624.

* * * * *

Sections 12.104 through 12.104i also issued under 19 U.S.C. 2612;

* * * * *

■ 2. In § 12.104g, the table in paragraph (b) is amended by adding Afghanistan to the list in alphabetical order to read as follows:

§ 12.104g Specific items or categories designated by agreements or emergency actions.

* * * * *

(b) * * *

State party	Cultural property	Decision No.
Afghanistan	Archaeological and ethnological material from Afghanistan	CBP Dec. 22–04.
*	* * * * *	*

Robert F. Altneu,

Director, Regulations & Disclosure Law Division, Regulations & Rulings, Office of Trade U.S. Customs and Border Protection.

Timothy E. Skud,

Deputy Assistant Secretary of the Treasury.

[FR Doc. 2022–03663 Filed 2–18–22; 8:45 am]

BILLING CODE 9111–14–P

DEPARTMENT OF THE TREASURY

Internal Revenue Service

26 CFR Part 1

[TD 9960]

RIN 1545–BO59

Guidance on Passive Foreign Investment Companies; Correction

AGENCY: Internal Revenue Service (IRS), Treasury.

ACTION: Correcting amendment.

SUMMARY: This document contains corrections to the final regulations Treasury Decision 9960 published in the **Federal Register** on Tuesday, January 25, 2022. The final regulations regarding the treatment of domestic partnerships for purposes of determining amounts included in the gross income of their partners with respect to foreign corporations.

DATES: These corrections are effective on *February 22, 2022,* and applicable on or after January 25, 2022.

FOR FURTHER INFORMATION CONTACT: Edward J. Tracy at (202) 317–6934 (not a toll-free number).

SUPPLEMENTARY INFORMATION:

Background

The final regulations (TD 9960) subject to this correction are issued under section 951 of the Internal Revenue Code.

Need for Correction

As published on January 25, 2022 (87 FR 3648), the final regulations (TD 9960) contain errors that need to be corrected.

List of Subjects in 26 CFR Part 1

Income taxes, Reporting and recordkeeping requirements.

Correction of Publication

Accordingly, 26 CFR part 1 is corrected by making the following correcting amendments:

PART 1—INCOME TAXES

■ **Paragraph 1.** The authority citation for part 1 continues to read in part as follows:

Authority: 26 U.S.C. 7805 * * *

§ 1.958–1 [Corrected]

■ **Par. 2.** Section 1.958–1(d)(3)(iii)(B)(*3*) is corrected by removing the word ''note'' and adding the word ''account'' in its place.

Oluwafunmilayo A. Taylor,

Chief, Publications and Regulations Branch, Legal Processing Division, Associate Chief Counsel, (Procedure and Administration).

[FR Doc. 2022–03611 Filed 2–18–22; 8:45 am]

BILLING CODE 4830–01–P

DEPARTMENT OF DEFENSE

Department of the Navy

32 CFR Part 744

[Docket ID: USN–2020–HQ–0005]

RIN 0703–AB27

Policies and Procedures for the Protection of Proprietary Rights in Technical Information Proposed for Release to Foreign Governments

AGENCY: Department of the Navy, Department of Defense (DoD).

ACTION: Final rule.

SUMMARY: This final rule removes the Navy regulation on the Policies and Procedures for the Protection of Proprietary Rights in Technical Information Proposed for Release to

Foreign Governments because its content is duplicative of a DoD-level regulation. The rule is redundant and unnecessary. Therefore, this rule can be removed from the Code of Federal Regulations (CFR).

DATES: This rule is effective on February 22, 2022.

FOR FURTHER INFORMATION CONTACT: Captain Bruce Gragert, United States Navy, 2000 Navy Pentagon, Room 4B654, Washington, DC 20350–2000, telephone: 703–692–5310.

SUPPLEMENTARY INFORMATION: It has been determined that publication of this CFR part removal for public comment is impracticable, unnecessary, and contrary to public interest since it is removing a duplicative rule memorialized elsewhere in the CFR. The rule provides guidance to Department of the Navy entities on the same delegation of authority captured in 32 CFR 264.4(d)(3). It does not add or subtract requirements beyond those already established.

This rule is not significant under Executive Order 12866, ''Regulatory Planning and Review.''

List of Subjects in 32 CFR Part 744

Military personnel.

PART 744—[REMOVED]

Accordingly, by the authority of 5 U.S.C. 301, 32 CFR part 744 is removed.

J.M. Pike,

Commander, Judge Advocate General's Corps, U.S. Navy, Federal Register Liaison Officer.

[FR Doc. 2022–03625 Filed 2–18–22; 8:45 am]

BILLING CODE 3810–FF–P

DEPARTMENT OF HOMELAND SECURITY

Coast Guard

33 CFR Part 117

[Docket No. USCG–2021–0181]

RIN 1625–AA09

Drawbridge Operation Regulation; Old River, Between Victoria Island and Byron Tract, CA

AGENCY: Coast Guard, DHS.

ACTION: Final rule.

SUMMARY: The Coast Guard is changing the operating schedule that governs the California Department of Transportation (Route 4) highway bridge, across Old River, mile 14.8, between Victoria Island and Byron Tract, California. This action is due to the infrequent amount of vessels requiring drawbridge openings on the waterway. It will reduce unnecessary staffing of the drawbridge during periods of navigational inactivity while continuing to meet the reasonable needs of navigation. The schedule change would require vessels to provide a four-hour advance notification for drawspan opening.

DATES: This rule is effective March 24, 2022.

ADDRESSES: To view documents mentioned in this preamble as being available in the docket, go to *https://www.regulations.gov.* Type USCG–2021–0181 in the ''SEARCH'' box and click ''SEARCH.'' In the Document Type column, select ''Supporting & Related Material.''

FOR FURTHER INFORMATION CONTACT: If you have questions on this rule, call or email Carl T. Hausner, Chief, Bridge Section, Eleventh Coast Guard District; telephone 510–437–3516, email *Carl.T.Hausner@uscg.mil.*

SUPPLEMENTARY INFORMATION:

I. Table of Abbreviations

CADFW California Department of Fish and Wildlife
Caltrans California Department of Transportation
CFR Code of Federal Regulations
DHS Department of Homeland Security
FR Federal Register
OMB Office of Management and Budget
NPRM Notice of Proposed Rulemaking (Advance, Supplemental)
§ Section
U.S.C. United States Code

II. Background Information and Regulatory History

On October 25, 2021, the Coast Guard published a Notice of Proposed Rulemaking (NPRM) entitled ''Drawbridge Operation Regulation; Old River, Between Victoria Island and Byron Tract, CA'' in the **Federal Register** (86 FR 58827). Further, the Commander (dpw), Eleventh Coast Guard District, mailed/emailed notification of the NPRM to 104 interested parties that may navigate Old River and published a notification of the NPRM in the Local Notice to Mariners, No. 43/21. The Coast Guard received no comments on this proposed rule.

On May 3, 2021, the Coast Guard published a temporary deviation from the operating schedule, entitled ''Drawbridge Operation Regulation; Old River, Between Victoria Island and Byron Tract, CA'' in the **Federal Register** (86 FR 23278). The May 3, 2021 proposed temporary deviation to the bridge operating schedule was employed to determine whether a permanent change was warranted to allow the draw to operate as follows:

The draw of the California Department of Transportation (Route 4) highway bridge, mile 14.8 between Victoria Island and Byron Tract, shall open on signal if at least four hours notice is given to the drawtender at the Rio Vista bridge across the Sacramento River, mile 12.8.

One comment from the Contra Costa County Office of the Sheriff was received during the temporary deviation period and was addressed in the NPRM.

III. Legal Authority and Need for Rule

The Coast Guard is issuing this rule under authority 33 U.S.C. 499.

The Caltrans (Route 4) highway bridge, across Old River, mile 14.8, between Victoria Island and Byron Tract, California is a swing span drawbridge. It provides a horizontal clearance of 98 feet and a vertical clearance of 12.7 feet above mean high water in the closed-to-navigation position with unlimited vertical clearance when fully opened. The Caltrans (Route 4) highway bridge is currently governed by 33 CFR 117.183, which requires the draw to open on signal from May 1 through October 31 from 6 a.m. to 10 p.m., and from November 1 through April 30 from 9 a.m. to 5 p.m. At all other times, the draw opens on signal if at least four hours notice is given to the drawtender at the Rio Vista bridge across the Sacramento River, mile 12.8.

Due to infrequent calls for drawbridge openings, Caltrans has requested a four-hour notification year-round for drawbridge openings at this location. A four-hour notification will allow Caltrans to use personnel more efficiently and reduce unnecessary staffing of the drawbridge during periods of navigational inactivity while continuing to meet the reasonable needs of navigation on the waterway.

There are approximately 10 marinas on Old River and nearby waterways, with two marinas upriver from the bridge. From 2011 through June 2020, the swing span opened for vessels 474 times, an average of 4.27 openings per month. Most openings have been for vessels operated by the CADFW (58%), followed by recreational vessels (22%), towboat-vessel assistance (9%), and tug and barge units (6%). Law enforcement and search and rescue vessels also used the waterway.

IV. Discussion of Comments, Changes and the Final Rule

The preceding NPRM the Coast Guard issued provided a comment period of 60 days and no comments were received.

The Final Rule would require the drawspan to open on signal if at least four hours notice is given to the drawtender at the Rio Vista bridge across the Sacramento River, mile 12.8. This Final Rule would meet the reasonable needs of navigation of vessels that currently use the waterway.

V. Regulatory Analyses

We developed this rule after considering numerous statutes and Executive Orders related to rulemaking. Below we summarize our analyses based on a number of these statutes and Executive Orders, and we discuss First Amendment rights of protesters.

A. Regulatory Planning and Review

Executive Orders 12866 and 13563 direct agencies to assess the costs and benefits of available regulatory alternatives and, if regulation is necessary, to select regulatory approaches that maximize net benefits. This rule has not been designated a ''significant regulatory action,'' under Executive Order 12866. Accordingly, it has not been reviewed by the Office of Management and Budget (OMB).

This regulatory action determination is based on the ability that vessels can still transit the bridge given advanced notice.

B. Impact on Small Entities

The Regulatory Flexibility Act of 1980 (RFA), 5 U.S.C. 601–612, as amended, requires federal agencies to consider the potential impact of regulations on small entities during rulemaking. The term ''small entities'' comprises small businesses, not-for-profit organizations that are independently owned and operated and are not dominant in their fields, and governmental jurisdictions with populations of less than 50,000. The Coast Guard received no comments from the Small Business Administration on this rule. The Coast Guard certifies under 5 U.S.C. 605(b) that this rule will not have a significant economic impact on a substantial number of small entities.

While some owners or operators of vessels intending to transit the bridge may be small entities, for the reasons stated in section V. A above, this rule will not have a significant economic impact on any vessel owner or operator.

Under section 213(a) of the Small Business Regulatory Enforcement Fairness Act of 1996 (Pub. L. 104–121), we want to assist small entities in understanding this rule. If the rule would affect your small business, organization, or governmental jurisdiction and you have questions concerning its provisions or options for compliance, please contact the person listed in the **FOR FURTHER INFORMATION CONTACT** section.

Small businesses may send comments on the actions of Federal employees who enforce, or otherwise determine compliance with, Federal regulations to the Small Business and Agriculture Regulatory Enforcement Ombudsman and the Regional Small Business Regulatory Fairness Boards. The Ombudsman evaluates these actions annually and rates each agency's responsiveness to small business. If you wish to comment on actions by employees of the Coast Guard, call 1–888–REG–FAIR (1–888–734–3247). The Coast Guard will not retaliate against small entities that question or complain about this rule or any policy or action of the Coast Guard.

C. Collection of Information

This rule calls for no new collection of information under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501–3520).

D. Federalism and Indian Tribal Government

A rule has implications for federalism under Executive Order 13132, Federalism, if it has a substantial direct effect on the States, on the relationship between the National Government and the States, or on the distribution of power and responsibilities among the various levels of government. We have analyzed this rule under that Order and have determined that it is consistent with the fundamental federalism principles and preemption requirements described in Executive Order 13132.

Also, this rule does not have tribal implications under Executive Order 13175, Consultation and Coordination with Indian Tribal Governments, because it does not have a substantial direct effect on one or more Indian tribes, on the relationship between the Federal Government and Indian tribes, or on the distribution of power and responsibilities between the Federal Government and Indian tribes.

E. Unfunded Mandates Reform Act

The Unfunded Mandates Reform Act of 1995 (2 U.S.C. 1531–1538) requires Federal agencies to assess the effects of their discretionary regulatory actions. In particular, the Act addresses actions that may result in the expenditure by a State, local, or tribal government, in the aggregate, or by the private sector of $100,000,000 (adjusted for inflation) or more in any one year. Though this rule will not result in such an expenditure, we do discuss the effects of this rule elsewhere in this preamble.

F. Environment

We have analyzed this rule under Department of Homeland Security Management Directive 023–01, Rev.1, associated implementing instructions, and Environmental Planning Policy COMDTINST 5090.1 (series) which guide the Coast Guard in complying with the National Environmental Policy Act of 1969 (NEPA)(42 U.S.C. 4321–4370f). The Coast Guard has determined that this action is one of a category of actions that do not individually or cumulatively have a significant effect on the human environment. This rule promulgates the operating regulations or procedures for drawbridges and is categorically excluded from further review, under paragraph L49, of Chapter 3, Table 3–1 of the U.S. Coast Guard Environmental Planning Implementation Procedures.

Neither a Record of Environmental Consideration nor a Memorandum for the Record are required for this rule.

G. Protest Activities

The Coast Guard respects the First Amendment rights of protesters. Protesters are asked to contact the person listed in the **FOR FURTHER INFORMATION CONTACT** section to coordinate protest activities so that your message can be received without jeopardizing the safety or security of people, places or vessels.

List of Subjects in 33 CFR Part 117

Bridges.

For the reasons discussed in the preamble, the Coast Guard amends 33 CFR part 117 as follows:

PART 117—DRAWBRIDGE OPERATION REGULATIONS

■ 1. The authority citation for part 117 continues to read as follows:

Authority: 33 U.S.C. 499; 33 CFR 1.05–1; and Department of Homeland Security Delegation No. 0170.1.

■ 2. Revise § 117.183 to read as follows:

§ 117.183 Old River.

The draw of the California Department of Transportation (Route 4) highway bridge, mile 14.8 between Victoria Island and Byron Tract, shall open on signal if at least four hours notice is given to the drawtender at the Rio Vista bridge across the Sacramento River, mile 12.8.

Dated: February 14, 2022.

Brian K. Penoyer,

Rear Admiral, U.S. Coast Guard, Commander, Eleventh Coast Guard District.

[FR Doc. 2022–03678 Filed 2–18–22; 8:45 am]

BILLING CODE 9110–04–P

DEPARTMENT OF HOMELAND SECURITY

Coast Guard

33 CFR Part 165

[Docket Number USCG–2022–0075]

RIN 1625–AA00

Safety Zone; Firestone Grand Prix of St. Petersburg, St. Petersburg, Florida

AGENCY: Coast Guard, Department of Homeland Security (DHS).

ACTION: Temporary final rule.

SUMMARY: The Coast Guard is establishing a temporary safety zone for the navigable waters of Tampa Bay, in the vicinity of the St. Petersburg Municipal Yacht Basin, St. Petersburg, Florida, during the Firestone Grand Prix of St. Petersburg. The temporary safety zone is needed to protect the safety of race participants, spectators, and vessels on the surrounding waterway during the race. Persons and vessels are prohibited from entering, transiting through, anchoring in, or remaining within the regulated area unless authorized by the Captain of the Port St. Petersburg or a designated representative.

DATES: This rule is effective from 6:00 a.m. on Feburary 25, 2022, through 10:00 p.m. on February 27, 2022.

ADDRESSES: To view documents mentioned in this preamble as being available in the docket, go to *https://www.regulations.gov,* type USCG–2022–0075 in the ''SEARCH'' box and click ''SEARCH.'' Click on Open Docket Folder on the line associated with this rule.

FOR FURTHER INFORMATION CONTACT: If you have questions on this rule, call or email Marine Science Technician Second Class Regina Cuevas, Sector St. Petersburg Prevention Department, Coast Guard; telephone (813) 228–2191, email *Regina.L.Cuevas@uscg.mil.*

SUPPLEMENTARY INFORMATION:

I. Table of Abbreviations

CFR Code of Federal Regulations
DHS Department of Homeland Security
FR Federal Register
NPRM Notice of proposed rulemaking
§ Section
U.S.C. United States Code

II. Background, Purpose, and Regulatory History

The Coast Guard is issuing this temporary rule without prior notice and opportunity to comment pursuant to authority under section 4(a) of the Administrative Procedure Act (APA) (5 U.S.C. 553(b)). This provision authorizes an agency to issue a rule without prior notice and opportunity to comment when the agency for good cause finds that those procedures are ''impracticable, unnecessary, or contrary to the public interest.'' Under 5 U.S.C. 553(b)(B), the Coast Guard finds that good cause exists for not publishing a notice of proposed rulemaking (NPRM) with respect to this rule because it is impracticable. The Coast Guard received information regarding the need for a safety zone on February 2, 2022. Insufficient time remains to publish a NPRM and to receive public comments, as the event will occur before the rulemaking process would be completed. Because of the potential safety hazards associated with the race, the regulations is necessary to provide for the safety of race participants, spectators, and other vessels navigating the surrounding waterways. For those reasons, it would be impracticable to publish an NPRM.

Under 5 U.S.C. 553(d)(3), the Coast Guard finds that good cause exists for making this rule effective less than 30 days after publication in the **Federal Register**. For the reasons discussed above, the Coast Guard finds that good cause exists.

III. Legal Authority and Need for Rule

The Coast Guard is issuing this rule under authority in 46 U.S.C. 70034. The Captain of the Port St. Petersburg has determined that potential hazards associated with the Firestone Grand Prix of St. Petersburg race, will be a safety concern for race participants, spectators, and vessels. This rule is needed to ensure the safety of vessels and persons within the navigable waters of the safety zone, during the race event.

IV. Discussion of the Rule

This rule establishes a safety zone from 6 a.m. until 10 p.m., daily on February 25, 2022, through February 27, 2022. The safety zone will cover all navigable waters within a specified area of Tampa Bay, in the vicinity of St. Petersburg, Florida. The duration of the zone is intended to ensure the safety of the public and these navigable waters during the race event. No vessel or person will be permitted to enter, transit through, anchor in, or remain within the safety zone without obtaining permission from the Captain of the Port St. Petersburg or a designated representative.

Persons and vessels may request authorization to enter, transit through, anchor in, or remain within the regulated area by contacting the Captain of the Port St. Petersburg by telephone at (727) 824–7506, or a designated representative via VHF radio on channel 16. If authorization to enter, transit through, anchor in, or remain within the regulated area is granted by the Captain of the Port St. Petersburg or a designated representative, all persons and vessels receiving such authorization must comply with the instructions of the Captain of the Port St. Petersburg or a designated representative. The Coast Guard will provide notice of the safety zone by Local Notice to Mariners, Broadcast Notice to Mariners, and/or on-scene designated representatives.

V. Regulatory Analyses

We developed this rule after considering numerous statutes and Executive orders related to rulemaking. Below we summarize our analyses based on a number of these statutes and Executive orders, and we discuss First Amendment rights of protestors.

A. Regulatory Planning and Review

Executive Orders 12866 and 13563 direct agencies to assess the costs and benefits of available regulatory alternatives and, if regulation is necessary, to select regulatory approaches that maximize net benefits. Executive Order 13771 directs agencies to control regulatory costs through a budgeting process. This rule has not been designated a ''significant regulatory action,'' under Executive Order 12866. Accordingly, this rule has not been reviewed by the Office of Management and Budget (OMB), and pursuant to OMB guidance it is exempt from the requirements of Executive Order 13771.

This regulatory action determination is based on the size, location, duration, and scope of the safety zone. The safety zone will only be enforced for a limited period of time. This time period extends over the course of three days, during the Firestone Grand Prix of St. Petersburg race events. Although persons and vessels are prohibited to enter, transit through, anchor in, or remain within the regulated area, without authorization from the Captain of the Port St. Petersburg or a designated representative, they may operate in the surrounding area during the enforcement period. The Coast Guard will provide advance notification of the safety zone to the local maritime community by Local Notice to Mariners and/or Broadcast Notice to Mariners.

B. Impact on Small Entities

The Regulatory Flexibility Act of 1980, 5 U.S.C. 601–612, as amended, requires Federal agencies to consider the potential impact of regulations on small entities during rulemaking. The

term ''small entities'' comprises small businesses, not-for-profit organizations that are independently owned and operated and are not dominant in their fields, and governmental jurisdictions with populations of less than 50,000. The Coast Guard certifies under 5 U.S.C. 605(b) that this rule would not have a significant economic impact on a substantial number of small entities.

While some owners or operators of vessels intending to transit the safety zone may be small entities, for the reasons stated in section V.A above, this rule will not have a significant economic impact on any vessel owner or operator.

Under section 213(a) of the Small Business Regulatory Enforcement Fairness Act of 1996 (Pub. L. 104–121), we want to assist small entities in understanding this rule. If the rule would affect your small business, organization, or governmental jurisdiction and you have questions concerning its provisions or options for compliance, please contact the person listed in the **FOR FURTHER INFORMATION CONTACT** section.

Small businesses may send comments on the actions of Federal employees who enforce, or otherwise determine compliance with, Federal regulations to the Small Business and Agriculture Regulatory Enforcement Ombudsman and the Regional Small Business Regulatory Fairness Boards. The Ombudsman evaluates these actions annually and rates each agency's responsiveness to small business. If you wish to comment on actions by employees of the Coast Guard, call 1–888–REG–FAIR (1–888–734–3247). The Coast Guard will not retaliate against small entities that question or complain about this rule or any policy or action of the Coast Guard.

C. Collection of Information

This rule will not call for a new collection of information under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501–3520).

D. Federalism and Indian Tribal Governments

A rule has implications for federalism under Executive Order 13132, Federalism, if it has a substantial direct effect on the States, on the relationship between the National Government and the States, or on the distribution of power and responsibilities among the various levels of government. We have analyzed this rule under that order and have determined that it is consistent with the fundamental federalism principles and preemption requirements described in Executive Order 13132.

Also, this rule does not have tribal implications under Executive Order 13175, Consultation and Coordination with Indian Tribal Governments, because it does not have a substantial direct effect on one or more Indian tribes, on the relationship between the Federal Government and Indian tribes, or on the distribution of power and responsibilities between the Federal Government and Indian tribes. If you believe this rule has implications for federalism or Indian tribes, please contact the person listed in the **FOR FURTHER INFORMATION CONTACT** section above.

E. Unfunded Mandates Reform Act

The Unfunded Mandates Reform Act of 1995 (2 U.S.C. 1531–1538) requires Federal agencies to assess the effects of their discretionary regulatory actions. In particular, the Act addresses actions that may result in the expenditure by a State, local, or tribal government, in the aggregate, or by the private sector of $100,000,000 (adjusted for inflation) or more in any one year. Though this rule would not result in such an expenditure, we do discuss the effects of this rule elsewhere in this preamble.

F. Environment

We have analyzed this rule under Department of Homeland Security Directive 023–01, Rev. 1, associated implementing instructions, and Environmental Planning COMDTINST 5090.1 (series), which guides the Coast Guard in complying with the National Environmental Policy Act of 1969 (42 U.S.C. 4321–4370f), and have determined that this action is one of a category of actions that do not individually or cumulatively have a significant effect on the human environment. This rule involves a safety zone that will prohibit persons and vessels from entering, transiting through, anchoring in, or remaining within the regulated area during a three day high speed grand prix race event. It is categorically excluded from further review under paragraph L60(a) Table 3–1 of U.S. Coast Guard Environmental Planning Implementing Procedures. A Record of Environmental Consideration supporting this determination is available in the docket where indicated under **ADDRESSES**.

G. Protest Activities

The Coast Guard respects the First Amendment rights of protesters. Protesters are asked to contact the person listed in the **FOR FURTHER INFORMATION CONTACT** section to coordinate protest activities so that your message can be received without jeopardizing the safety or security of people, places, or vessels.

List of Subjects in 33 CFR Part 165

Harbors, Marine safety, Navigation (water), Reporting and recordkeeping requirements, Security measures, Waterways.

For the reasons discussed in the preamble, the Coast Guard amends 33 CFR part 165 as follows:

PART 165—REGULATED NAVIGATION AREAS AND LIMITED ACCESS AREAS

■ 1. The authority citation for part 165 continues to read as follows:

Authority: 46 U.S.C. 70034, 70051; 33 CFR 1.05–1, 6.04–1, 6.04–6, and 160.5; Department of Homeland Security Delegation No. 00170.1, Revision No. 01.2.

■ 2. Add § 165.T07–0075 to read as follows:

§ 165.T07–0075 Safety Zone; Firestone Grand Prix of St. Petersburg, St. Petersburg, FL.

(a) *Regulated area.* The following area is established as a safety zone. All waters of the Gulf of Mexico encompassed within the following points: 27°46′18″ N, 082°37′55.2″ W, thence to position 27°46′18″ N, 082°37′54.6″ W, thence to position 27°46′9.6″ N, 082°37′54.6″ W, thence to position 27°46′9.6″ N, 082°37′33″ W, thence to position 27°46′4.2″ N, 082°37′33″ W, thence to position 27°45′59.4″ N, 082°37′50.4″ W, thence to position 27°46′6.6″ N, 082°37′56.4″ W, thence to position 27°46′13.8″ N, 082°37′55.8″ W, thence back to the original position 27°46′18″ N, 082°37′55.2″ W. All coordinates are North American Datum 1983.

(b) *Definition.* The term ''designated representative'' means Coast Guard Patrol Commanders, including Coast Guard coxswains, petty officers, and other officers operating Coast Guard vessels, and Federal, state, and local officers designated by or assisting the Captain of the Port St. Petersburg in the enforcement of the regulated areas.

(c) *Regulations.* (1) All persons and vessels are prohibited from entering, transiting through, anchoring in, or remaining within the regulated area unless authorized by the Captain of the Port St. Petersburg or a designated representative.

(2) Designated representatives may control vessel traffic throughout the enforcement area as determined by the prevailing conditions.

(3) Persons and vessels may request authorization to enter, transit through, anchor in, or remain within the regulated areas by contacting the

Captain of the Port St. Petersburg by telephone at (727) 824–7506, or a designated representative via VHF radio on channel 16. If authorization is granted by the Captain of the Port St. Petersburg or a designated representative, all persons and vessels receiving such authorization must comply with the instructions of the Captain of the Port St. Petersburg or a designated representative.

(d) *Enforcement period.* This section will be enforced daily from 6 a.m. until 10 p.m., on February 25, 2022, through February 27, 2022.

Dated: February 15, 2022.

Matthew A. Thompson,

Captain, U.S. Coast Guard, Captain of the Port Saint Petersburg.

[FR Doc. 2022–03707 Filed 2–18–22; 8:45 am]

BILLING CODE 9110–04–P

DEPARTMENT OF HOMELAND SECURITY

Coast Guard

33 CFR Part 165

[Docket Number USCG–2022–0094]

RIN 1625–AA00

Safety Zone; Atlantic Ocean, Cape Lookout, NC

AGENCY: Coast Guard, DHS.

ACTION: Temporary final rule.

SUMMARY: The Coast Guard is establishing a temporary safety zone on the navigable waters of the Atlantic Ocean near Cape Lookout, North Carolina. This temporary safety zone restricts vessel traffic in a portion of the Atlantic Ocean while crews continue to search a plane crash area. This action restricts vessel traffic to protect mariners, vessels, and dive crews from the hazards associated with the work or surveying a plane crash site. Entry of vessels or persons into this safety zone is prohibited unless specifically authorized by the Captain of the Port (COTP) North Carolina or a designated representative.

DATES: This rule is effective without actual notice from February 22, 2022, until March 1, 2022. For the purposes of enforcement, actual notice will be used from February 15, 2022, until February 22, 2022.

ADDRESSES: To view documents mentioned in this preamble as being available in the docket, go to *https://www.regulations.gov,* type USCG–2022–0094 in the search box and click ''Search.'' Next, in the Document Type column, select ''Supporting & Related Material.''

FOR FURTHER INFORMATION CONTACT: If you have questions on this rule, call or email Petty Officer Ken Farah, Waterways Management Division, U.S. Coast Guard; telephone 910–772–2221, email *ncmarineevents@uscg.mil.*

SUPPLEMENTARY INFORMATION:

I. Table of Abbreviations

CFR Code of Federal Regulations
DHS Department of Homeland Security
FR Federal Register
NPRM Notice of proposed rulemaking
§ Section
U.S.C. United States Code

II. Background Information and Regulatory History

The Coast Guard is issuing this temporary rule without prior notice and opportunity to comment pursuant to authority under section 4(a) of the Administrative Procedure Act (APA) (5 U.S.C. 553(b)). This provision authorizes an agency to issue a rule without prior notice and opportunity to comment when the agency for good cause finds that those procedures are ''impracticable, unnecessary, or contrary to the public interest.'' Under 5 U.S.C. 553(b)(B), the Coast Guard finds that good cause exists for not publishing a notice of proposed rulemaking (NPRM) with respect to this rule because it would be impracticable and contrary to the public interest. The Coast Guard was unable to publish an NPRM and hold a reasonable comment period for this rulemaking due to the emergent nature of the recovery operations and required publication of this rule. Immediate action is needed to protect persons and vessels from the hazards associated with carrying out operations to recover the downed aircraft and survey the area for debris. It is impracticable and contrary to the public interest to publish an NPRM because a final rule needs to be in place by February 15, 2022.

We are issuing this rule, and under 5 U.S.C. 553(d)(3), the Coast Guard finds that good cause exists for making it effective less than 30 days after publication in the **Federal Register**. Delaying the effective date of this rule would be impracticable and contrary to the public interest for the reasons discussed above, immediate action is needed to protect persons, property, vessels, and the marine environment on the navigable waters of the Atlantic Ocean near Cape Lookout in North Carolina.

III. Legal Authority and Need for Rule

The Coast Guard is issuing this rule under authority in 33 U.S.C. 1231. The Captain of the Port North Carolina (COTP) has determined potential hazards associated with operations during recovery work on the site of a plane crash. Work on this site is starting February 15, 2022, and ongoing. This work is a safety concern for anyone transiting the designated recovery area of the Atlantic Ocean and Cape Lookout, NC, because the site work will involve persons in the water. This rule is necessary to protect persons, vessels, and participants from the hazards associated with the recovery efforts.

IV. Discussion of the Rule

This rule establishes a safety zone from on February 15, 2022, through March 1, 2022. The safety zone will be enforced from 7 a.m. through 7 p.m. each day the rule is in effect. The safety zone will include all navigable waters of the Atlantic Ocean within a 1,000 yard radius of position 34–48.81 N by 076–17.23 W. The duration of this zone is intended to protect persons, property, vessels, and the marine environment on the navigable waters of the Atlantic Ocean during the recovery efforts of at downed aircraft. No vessel or person will be permitted to enter the safety zone unless specifically authorized by the Captain of the Port North Carolina or a designated representative.

V. Regulatory Analyses

We developed this rule after considering numerous statutes and Executive orders related to rulemaking. Below we summarize our analyses based on a number of these statutes and Executive orders, and we discuss First Amendment rights of protestors.

A. Regulatory Planning and Review

Executive Orders 12866 and 13563 direct agencies to assess the costs and benefits of available regulatory alternatives and, if regulation is necessary, to select regulatory approaches that maximize net benefits. This rule has not been designated a ''significant regulatory action,'' under Executive Order 12866. Accordingly, this rule has not been reviewed by the Office of Management and Budget (OMB).

This regulatory action determination is based on the emergent nature of this event and limited impact to the public. The safety zone is in an area where there is ample space to pass around this area. Moreover, the Coast Guard will issue a Broadcast Notice to Mariners via VHF–FM marine channel 16 about the zone, and the rule will allow vessels to seek permission to pass through the zone if necessary.

B. Impact on Small Entities

The Regulatory Flexibility Act of 1980, 5 U.S.C. 601–612, as amended, requires Federal agencies to consider the potential impact of regulations on small entities during rulemaking. The term ''small entities'' comprises small businesses, not-for-profit organizations that are independently owned and operated and are not dominant in their fields, and governmental jurisdictions with populations of less than 50,000. The Coast Guard certifies under 5 U.S.C. 605(b) that this rule will not have a significant economic impact on a substantial number of small entities.

While some owners or operators of vessels intending to transit the safety zone may be small entities, for the reasons stated in section V.A above, this rule will not have a significant economic impact on any vessel owner or operator.

Under section 213(a) of the Small Business Regulatory Enforcement Fairness Act of 1996 (Pub. L. 104–121), we want to assist small entities in understanding this rule. If the rule would affect your small business, organization, or governmental jurisdiction and you have questions concerning its provisions or options for compliance, please call or email the person listed in the **FOR FURTHER INFORMATION CONTACT** section.

Small businesses may send comments on the actions of Federal employees who enforce, or otherwise determine compliance with, Federal regulations to the Small Business and Agriculture Regulatory Enforcement Ombudsman and the Regional Small Business Regulatory Fairness Boards. The Ombudsman evaluates these actions annually and rates each agency's responsiveness to small business. If you wish to comment on actions by employees of the Coast Guard, call 1–888–REG–FAIR (1–888–734–3247). The Coast Guard will not retaliate against small entities that question or complain about this rule or any policy or action of the Coast Guard.

C. Collection of Information

This rule will not call for a new collection of information under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501–3520).

D. Federalism and Indian Tribal Governments

A rule has implications for federalism under Executive Order 13132, Federalism, if it has a substantial direct effect on the States, on the relationship between the National Government and the States, or on the distribution of power and responsibilities among the various levels of government. We have analyzed this rule under that Order and have determined that it is consistent with the fundamental federalism principles and preemption requirements described in Executive Order 13132.

Also, this rule does not have tribal implications under Executive Order 13175, Consultation and Coordination with Indian Tribal Governments, because it does not have a substantial direct effect on one or more Indian tribes, on the relationship between the Federal Government and Indian tribes, or on the distribution of power and responsibilities between the Federal Government and Indian tribes.

E. Unfunded Mandates Reform Act

The Unfunded Mandates Reform Act of 1995 (2 U.S.C. 1531–1538) requires Federal agencies to assess the effects of their discretionary regulatory actions. In particular, the Act addresses actions that may result in the expenditure by a State, local, or tribal government, in the aggregate, or by the private sector of $100,000,000 (adjusted for inflation) or more in any one year. Though this rule will not result in such an expenditure, we do discuss the effects of this rule elsewhere in this preamble.

F. Environment

We have analyzed this rule under Department of Homeland Security Directive 023–01, Rev. 1, associated implementing instructions, and Environmental Planning COMDTINST 5090.1 (series), which guide the Coast Guard in complying with the National Environmental Policy Act of 1969 (42 U.S.C. 4321–4370f), and have determined that this action is one of a category of actions that do not individually or cumulatively have a significant effect on the human environment. This rule involves a safety zone that will prohibit entry within 1,000 yards of vessels and machinery being used by personnel to survey and recover an aircraft crash site at position 34–48.81 N by 076–17.23 W. It is categorically excluded from further review under paragraph L[60d] of Appendix A, Table 1 of DHS Instruction Manual 023–01–001–01, Rev. 1. A Record of Environmental Consideration supporting this determination is available in the docket. For instructions on locating the docket, see the **ADDRESSES** section of this preamble.

G. Protest Activities

The Coast Guard respects the First Amendment rights of protesters. Protesters are asked to call or email the person listed in the **FOR FURTHER INFORMATION CONTACT** section to coordinate protest activities so that your message can be received without jeopardizing the safety or security of people, places or vessels.

List of Subjects in 33 CFR Part 165

Harbors, Marine safety, Navigation (water), Reporting and recordkeeping requirements, Security measures, Waterways.

For the reasons discussed in the preamble, the Coast Guard amends 33 CFR part 165 as follows:

PART 165—REGULATED NAVIGATION AREAS AND LIMITED ACCESS AREAS

■ 1. The authority citation for part 165 continues to read as follows:

Authority: 46 U.S.C. 70034, 70051; 33 CFR 1.05–1, 6.04–1, 6.04–6, and 160.5; Department of Homeland Security Delegation No. 00170.1, Revision No. 01.2.

■ 2. Add § 165.T05–0094

§ 165.T05–0094 Safety Zone; Atlantic Ocean, Cape Lookout, NC.

(a) *Location.* The following area is a safety zone on all navigable waters within a 1,000 yard radius of position 34–48.81 N by 076–17.23 W on the Atlantic Ocean near Cape Lookout, North Carolina.

(b) *Definitions.* As used in this section—

Designated representative means a Coast Guard Patrol Commander, including a Coast Guard commissioned, warrant, or petty officer designated by the Captain of the Port North Carolina (COTP) for the enforcement of the safety zone.

(c) *Regulations.* (1) The general regulations governing safety zones in § 165.23 apply to the area described in paragraph (a) of this section.

(2) Entry into or remaining in this safety zone is prohibited unless authorized by the COTP or the COTP's designated representative. Unless permission to remain in the zone has been granted by the COTP or the COTP's designated representative, a vessel within this safety zone must immediately depart the zone when this section becomes effective.

(3) The Captain of the Port, North Carolina can be reached through the Coast Guard Sector North Carolina Command Duty Officer, Wilmington, North Carolina, at telephone number 910–343–3882.

(4) The Coast Guard and designated security vessels enforcing the safety zone can be contacted on VHF–FM marine band radio channel 13 (165.65 MHz) and channel 16 (156.8 MHz).

(d) *Enforcement.* The U.S. Coast Guard may be assisted in the patrol and enforcement of the safety zone by Federal, State, and local agencies.

(e) *Enforcement period.* This section will be enforced from 7 a.m. through 7 p.m. each day from February 15, 2022, through March 1, 2022.

Dated: February 15, 2022.

Matthew J. Baer,

Captain, U.S. Coast Guard, Captain of the Port North Carolina.

[FR Doc. 2022–03671 Filed 2–18–22; 8:45 am]

BILLING CODE 9110–04–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA–R04–OAR–2022–0002; FRL–9413–01–R4]

Approval and Promulgation of Implementation Plans; Georgia: Approval of Revisions to State Implementation Plan; Correction

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule; correction and clarification.

SUMMARY: The Environmental Protection Agency (EPA) is correcting statements contained in a July 11, 2002, **Federal Register** notice of direct final rulemaking approving changes to the Georgia State Implementation Plan (SIP). Specifically, EPA stated that it was approving a change to the public notice requirements in Georgia's SIP for federally-enforceable operating permits. However, this change was never effective at the state level and, therefore, was never incorporated into the SIP. EPA is publishing this correction notice to eliminate any potential confusion regarding the public notice requirements in Georgia's SIP for these permits.

DATES: Effective February 22, 2022.

ADDRESSES: EPA has established a docket for this notice of correction under Docket Identification No. EPA–R04–OAR–2022–0002 to provide electronic access to the July 11, 2002, submittal. All documents in the docket are listed on the *www.regulations.gov* website. Although listed in the index, some information may not be publicly available, *i.e.,* Confidential Business Information or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically through *www.regulations.gov* or in hard copy at the Air Regulatory Management Section, Air Planning and Implementation Branch, Air and Radiation Division, U.S. Environmental Protection Agency, Region 4, 61 Forsyth Street SW, Atlanta, Georgia 30303–8960. EPA requests that if at all possible, you contact the person listed in the **FOR FURTHER INFORMATION CONTACT** section to schedule your inspection. The Regional Office's official hours of business are Monday through Friday 8:30 a.m. to 4:30 p.m., excluding Federal holidays.

FOR FURTHER INFORMATION CONTACT: D. Brad Akers, Air Regulatory Management Section, Air Planning and Implementation Branch, Air and Radiation Division, U.S. Environmental Protection Agency, Region 4, 61 Forsyth Street SW, Atlanta, Georgia 30303–8960. Mr. Akers can be reached via telephone at 404–562–9089 or via electronic mail at *akers.brad@epa.gov.*

SUPPLEMENTARY INFORMATION: Section 110 of the Clean Air Act (CAA) requires states to develop and submit to EPA a SIP to ensure that state air quality meets the National Ambient Air Quality Standards (NAAQS). These NAAQS currently address six criteria pollutants: Carbon monoxide, nitrogen dioxide, ozone, lead, particulate matter, and sulfur dioxide. Each state has a SIP containing the control measures and strategies used to attain and maintain the NAAQS. The SIP is extensive, containing such elements as air pollution control and permitting regulations, emission inventories, attainment demonstrations, and enforcement mechanisms. Each state must formally adopt the elements it proposes to include in its SIP after the public has had an opportunity to comment on them and must then submit the proposed SIP revisions to EPA. If the revisions meet all relevant CAA requirements, EPA must approve them through notice and comment rulemaking and incorporate the elements into the SIP at 40 Code of Federal Regulations part 52—''Approval and Promulgation of Implementation Plans.'' [1]

EPA incorporated Georgia's ''Operating (SIP) Permits'' rule—Ga. Comp. R. & Regs. 391–3–1–.03, *Permits,* at Section (2) (hereinafter Rule 391–3–1–.03(2))—into the Georgia SIP on August 30, 1995. *See* 60 FR 45048. Paragraph (i) of this rule requires the State to notify EPA and the public prior to issuing any federally-enforceable operating permit and provide the opportunity to comment on the draft permit. Georgia has not revised this public notice provision since its initial incorporation into the SIP.[2]

On July 11, 2002 (67 FR 45909), EPA approved numerous changes to the Georgia SIP through a direct final rule. This rule addressed regulatory changes transmitted to EPA on December 6, 1999, March 21, 2000, January 4, 2001, August 21, 2001, and December 28, 2001, by the State of Georgia, through the Georgia Department of Natural Resources' Environmental Protection Division (also known as GA EPD).

GA EPD's March 21, 2000, submittal contained several revisions to Rule 391–3–1–.03 and information indicating that it included changes to Rule 391–3–1–.03(2) for EPA approval. Specifically, the submittal contained a strikeout/underline draft version of Rule 391–3–1–.03(2)(i), that purported to eliminate the phrase ''on the draft permit.'' In the preamble of the July 11, 2002, notice of direct final rulemaking, EPA indicated it was removing this phrase, stating that ''*Rule 391–3–1–.03(2)(i)* is being amended to allow the public and EPA notification and review of a permit application to begin upon receipt of a permit application rather than upon completion of a draft permit.'' [3] [4] *See* 67 FR 45909 at 45910. However, the submittal also included a final version of the rule that retained the phrase ''on the draft permit'' and a hearing record showing that the draft version of Rule 391–3–1–.03(2)(i) (eliminating the phrase ''on the draft permit''), was never adopted by the Georgia Board of Natural Resources, and, therefore, was never state effective.

The direct final rule incorporated the final version of Rule 391–3–1–.03 into the SIP at 40 CFR 52.570(c). Because the draft change to the public notice requirement in Rule 391–3–1–.03(2)(i) (eliminating the phrase ''on the draft permit''), was never state effective, EPA could not have incorporated it into the SIP. Therefore, EPA did not approve any change to 391–3–1–.03(2) in the July 11,

[1] Georgia's SIP is set forth at 40 CFR 52.570.

[2] The SIP-approved version of Rule 391–3–1–.03(2) states ''Prior to the issuance of any federally enforceable operating permit, EPA and the public will be notified and given a chance for comment on the draft permit.''

[3] EPA erroneously made the draft change to Rule 391–3–1–.03(2)(i) in its online Georgia SIP compilation at *https://www.epa.gov/sips-ga.* EPA will correct this error in the SIP compilation at the time of publication or shortly thereafter.

[4] The SIP table at 40 CFR 52.570(c) contains an error in the entry for Rule 391–3–1–.03(2) indicating a December 26, 2001, state effective date. EPA intends to correct this table entry to reflect a state effective date of August 17, 1994, in the next routine update to the materials incorporated by reference into the Georgia SIP.

2002, direct final rule, and the preamble description of EPA's action was erroneous.

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Carbon monoxide, Incorporation by reference, Intergovernmental relations, Lead, Nitrogen dioxide, Ozone, Particulate matter, Reporting and recordkeeping requirements, Sulfur oxides, Volatile organic compounds.

Authority: 42 U.S.C. 7401 *et seq.*

Dated: February 4, 2022.

Daniel Blackman,

Regional Administrator, Region 4.

[FR Doc. 2022–03605 Filed 2–18–22; 8:45 am]

BILLING CODE 6560–50–P

FEDERAL COMMUNICATIONS COMMISSION

47 CFR Part 54

[WC Docket No. 10–90; FCC 19–95, FCC 20–5; FR ID 72341]

Connect America Fund

AGENCY: Federal Communications Commission.

ACTION: Final rule; announcement of effective date.

SUMMARY: In this document, the Federal Communications Commission (Commission) announces that the Office of Management and Budget (OMB) has approved, for a period of three years, an information collection associated with the rules for the Connect America Fund contained in the Commission's *Uniendo a Puerto Rico Fund and the Connect USVI Fund,* FCC 19–95 and the *2020 Rural Digital Opportunity Fund Order,* FCC 20–5. This document is consistent with the *Uniendo a Puerto Rico Fund and the Connect USVI Fund Order* and the *2020 Rural Digital Opportunity Fund Order,* which stated that the Commission would publish a document in the **Federal Register** announcing the effective date of the revised information collection requirements.

DATES: The amendments to §§ 54.316(a)(7) and (b)(7), 54.1503, 54.1513, and 54.1514, published at 84 FR 59937, November 7, 2019, and § 54.316(a)(8), (b)(5), and (c)(1) published at 85 FR 13773, March 10, 2020, are effective February 22, 2022.

FOR FURTHER INFORMATION CONTACT: Jesse Jachman, Wireline Competition Bureau at (202) 418–7400. For additional information concerning the Paperwork Reduction Act information collection requirements contact Nicole Ongele at (202) 418–2991 or via email at *Nicole.Ongele@fcc.gov.*

SUPPLEMENTARY INFORMATION: The Commission submitted revised information collection requirements for review and approval by OMB, as required by the Paperwork Reduction Act (PRA) of 1995, on October 19, 2021. OMB approved the revised information collection requirements on January 5, 2022. The information collection requirements are contained in the Commission's *Uniendo a Puerto Rico Fund and the Connect USVI Fund Order,* FCC 19–95, published at 84 FR 59937, November 7, 2019 and the *2020 Rural Digital Opportunity Fund Order,* FCC 20–5, published at 85 FR 13773, March 10, 2020. The OMB Control Number is 3060–1228. The Commission publishes this document as an announcement of the effective date of the rules published on November 7, 2019 and March 10, 2020. If you have any comments on the burden estimates listed in the following, or how the Commission can improve the collections and reduce any burdens caused thereby, please contact Nicole Ongele, Federal Communications Commission, 45 L Street NE, Washington, DC 20554. Please include the OMB Control Number, 3060–1228, in your correspondence. The Commission will also accept your comments via email at *PRA@fcc.gov.* To request materials in accessible formats for people with disabilities (Braille, large print, electronic files, audio format), send an email to *fcc504@fcc.gov* or call the Consumer and Governmental Affairs Bureau at (202) 418–0530.

Synopsis

As required by the Paperwork Reduction Act of 1995 (44 U.S.C. 3507), the Commission is notifying the public that it received OMB approval on January 5, 2022, for the amendments to 47 CFR 54.316(a)(7) and (b)(7), 54.1503, 54.1513 and 54.1514 published at 84 FR 59937, November 7, 2019 and 47 CFR 54.316(a)(8), (b)(5) and (c)(1) published at 85 FR 13773, March 10, 2020. Under 5 CFR part 1320, an agency may not conduct or sponsor a collection of information unless it displays a current, valid OMB Control Number. No person shall be subject to any penalty for failing to comply with a collection of information subject to the Paperwork Reduction Act that does not display a current, valid OMB Control Number. The OMB Control Number is 3060–1228. The foregoing notice is required by the Paperwork Reduction Act of 1995, Public Law 104–13, October 1, 1995, and 44 U.S.C. 3507.

The total annual reporting burdens and costs for the respondents are as follows:

OMB Control Number: 3060–1228.

OMB Approval Date: January 5, 2022.

OMB Expiration Date: January 31, 2025.

OMB Control Number: 3060–1228.

Title: Connect America Fund—High Cost Portal Filing.

Form Number: N/A.

Type of Review: Revision of a currently approved collection.

Respondents: Business or other for-profit, not-for-profit institutions.

Number of Respondents and Responses: 2,024 unique respondents; 4,644 responses.

Estimated Time per Response: 8 hours–60 hours.

Frequency of Response: On occasion, quarterly reporting requirements, annual reporting requirements, and recordkeeping requirement.

Obligation to Respond: Required to obtain or retain benefits. Statutory authority for this information collection is contained in 47 U.S.C. 151–154, 155, 201–206, 214, 218–220, 251, 252, 254, 256, 303(r), 332, 403, 405, 410, and 1302.

Total Annual Burden: 86,727 hours.

Total Annual Cost: No Cost.

Privacy Act Impact Assessment: No impact(s).

Nature and Extent of Confidentiality: Except for the middle-mile maps for Alaska Plan carriers, and the coverage maps and information for Uniendo a Puerto Rico Fund and Connect USVI Fund Stage 2 mobile support recipients, the Commission is not requesting respondents to submit confidential information to the Commission. The Commission notes that the Universal Service Administrative Company (USAC) must preserve the confidentiality of all data obtained from respondents and contributors to the universal service support program mechanism; must not use the data except for purposes of administering the universal service support program; and must not disclose data in company-specific form unless directed to do so by the Commission. Also, respondents may request materials or information submitted to the Commission or to the Administrator believed confidential to be withheld from public inspection under 47 CFR 0.459 of the FCC's rules.

Needs and Uses: Through several orders, the Commission has recently changed or modified reporting obligations for high-cost support. Pursuant to the following orders, this collection includes location reporting and related certification requirements of high-cost support recipients: *Connect*

America Fund et al., Report and Order, Order and Order on Reconsideration, and Further Notice of Proposed Rulemaking, 31 FCC Rcd 3087 (2016) (*2016 Rate-of-Return Order*); *Connect America Fund et al.,* Report and Order and Further Notice of Proposed Rulemaking, 31 FCC Rcd 5949 (2016) (*Phase II Auction Order*); *Connect America Fund et al.,* Order, 31 FCC Rcd 12086 (2016) (*ACS Phase II Order*); Connect America Fund et al., Report and Order and Notice of Proposed Rulemaking, 29 FCC Rcd 876 (2014) (*Rural Broadband Experiments Order*); *Connect America Fund et al.,* Report and Order, 29 FCC Rcd 15644 (2014) (*Price Cap Order*); *Technology Transitions et al.,* Order *et al.,* 29 FCC Rcd 1433 (2014) (*Tech Transitions Order*); *Connect America Fund et al.,* Report and Order and Further Notice of Proposed Rulemaking, 31 FCC Rcd 10139 (2016) (*Alaska Plan Order*); *Connect America Fund et al.,* Order, 32 FCC Rcd 968 (2017) (*New York Auction Order*); *Connect America Fund et al.,* Report and Order, Further Notice of Proposed Rulemaking, and Order on Reconsideration, 33 FCC Rcd 11–893 (2018) (*2018 Rate-of-Return Order*); *Uniendo a Puerto Rico and Connect USVI Fund et al.,* Report and Order and Order on Reconsideration, 34 FCC Rcd 9109 (2019) (*PR–USVI Stage 2 Order*); *Rural Digital Opportunity Fund et al.,* Report and Order, 35 FCC Rcd 686 (2020) (*2020 Rural Digital Opportunity Fund Order*).

This information collection addresses the requirement that certain carriers with high-cost reporting obligations must file information about the locations to which they have deployed broadband service meeting applicable public interest requirements (location information). A web-based portal, the High-Cost Universal Broadband Portal (HUBB or portal), is used to accept this information. The Commission and USAC will use this information to monitor the deployment progress of reporting carriers and to verify the reporting carriers' claims of service at the reported locations. Such activities help the Commission ensure that support is being used as intended. In addition, because data filed in the HUBB is publicly accessible, the reporting helps ensure public accountability and transparency.

In the *2019 PR–USVI Stage 2 Order,* the Commission created a competitive process to determine support recipients for the Commonwealth of Puerto Rico and the U.S. Virgin Islands. As a result, carriers receiving support in these areas are subject to specific public interest obligations related to speed, usage, latency, and price as well as certain deployment milestones. Specifically, the Commission imposed defined deployment obligations and associated HUBB reporting requirements (annual location reporting and build-out certifications) for all Uniendo a Puerto Rico Fund and Connect USVI Fund Stage 2 fixed support recipients as well as annual reporting and certification requirements for all Uniendo a Puerto Rico Fund and Connect USVI Fund Stage 2 mobile support recipients.

Uniendo a Puerto Rico Fund and Connect USVI Fund Stage 2 mobile support recipients will also file network coverage and other data as required by the Commission's orders. The Commission and USAC will use this information to monitor the deployment progress of mobile carriers and to verify that carriers meet the public interest obligations for 4G LTE and 5G mobile broadband and voice services in the Commonwealth of Puerto Rico and the U.S. Virgin Islands. Instead of filing in the HUBB portal, mobile support recipients will submit their reports electronically as part of a web form accessed via the Commission's Form 477 portal (477 Portal) and the Electronic Comment Filing System. This collection mechanism is being used to reduce the technological burden on the public and the Commission, as carriers and the public are familiar with both of these systems. The Commission's Wireline Competition Bureau will specify the filing process by which Stage 2 mobile support recipients must file their reports in the 477 Portal prior to the filing deadlines.

In the *2020 Rural Digital Opportunity Fund Order,* the Commission adopted a support mechanism to provide funding through a competitive auction to connect rural homes and businesses to high-speed broadband networks. The Commission established specific public interest obligations and deployment milestones for all carriers receiving this support. Specifically, the Commission imposed defined deployment obligations and associated HUBB reporting requirements (annual location reporting and build-out certifications) for all support recipients.

The Commission therefore revises this information collection to increase the burdens associated with existing and new reporting requirements to account for additional carriers that will be subject to these requirements.

Federal Communications Commission.

Marlene Dortch,

Secretary.

[FR Doc. 2022–03647 Filed 2–18–22; 8:45 am]

BILLING CODE 6712–01–P

Proposed Rules

Federal Register
Vol. 87, No. 35
Tuesday, February 22, 2022

This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rule making prior to the adoption of the final rules.

DEPARTMENT OF AGRICULTURE

Agricultural Marketing Service

7 CFR Part 981

[Doc. No. AMS–SC–21–0076; SC21–981–1 PR]

Marketing Order Regulations for Almonds Grown in California

AGENCY: Agricultural Marketing Service, Department of Agriculture (USDA).

ACTION: Proposed rule.

SUMMARY: This proposed rule would implement a recommendation from the Almond Board of California (Board) to make changes to multiple provisions in the administrative requirements prescribed under the Federal marketing order regulating the handling of almonds grown in California. This action would revise several provisions in the Order's requirements to facilitate the efficient administration of the Order.

DATES: Comments must be received by April 25, 2022. Comments on the forms and information collection must also be received by April 25, 2022.

ADDRESSES: Interested persons are invited to submit written comments concerning this proposed rule. Comments must be sent to the Docket Clerk, Market Development Division, Specialty Crops Program, AMS, USDA, 1400 Independence Avenue SW, STOP 0237, Washington, DC 20250–0237; Fax: (202) 720–8938; or via internet at: *https://www.regulations.gov.* Comments should reference the document number and the date and page number of this issue of the **Federal Register**. All comments will be made available for public inspection in the Office of the Docket Clerk during regular business hours, or can be viewed at: *https://www.regulations.gov.* All comments submitted in response to this proposed rule will be included in the record and will be made available to the public on the internet at the address provided above. Please be advised that the identity of individuals or entities submitting comments will be made public.

FOR FURTHER INFORMATION CONTACT: Peter Sommers, Marketing Specialist, or Gary Olson, Regional Director, West Region Field Office, Market Development Division, Specialty Crops Program, AMS, USDA; Telephone: (559) 487–5901, Fax: (559) 487–5906, or Email: *PeterR.Sommers@usda.gov* or *GaryD.Olson@usda.gov.*

Small businesses may request information on complying with this regulation by contacting Richard Lower, Market Development Division, Specialty Crops Program, AMS, USDA, 1400 Independence Avenue SW, STOP 0237, Washington, DC 20250–0237; Telephone: (202) 720–2491, Fax: (202) 720–8938, or Email: *Richard.Lower@usda.gov.*

SUPPLEMENTARY INFORMATION: This action, pursuant to 5 U.S.C. 553, proposes to amend regulations issued to carry out a marketing order as defined in 7 CFR 900.2(j). This proposed rule is issued under Marketing Order No. 981, as amended (7 CFR part 981), regulating the handling of almonds grown in California. Part 981 (referred to as the ''Order'') is effective under the Agricultural Marketing Agreement Act of 1937, as amended (7 U.S.C. 601–674), hereinafter referred to as the ''Act.'' The Board locally administers the Order and comprises growers and handlers of almonds operating within the production area.

The Department of Agriculture (USDA) is issuing this proposed rule in conformance with Executive Orders 12866 and 13563. Executive Orders 12866 and 13563 direct agencies to assess all costs and benefits of available regulatory alternatives and, if regulation is necessary, to select regulatory approaches that maximize net benefits (including potential economic, environmental, public health and safety effects, distributive impacts, and equity). Executive Order 13563 emphasizes the importance of quantifying both costs and benefits, reducing costs, harmonizing rules, and promoting flexibility. This action falls within a category of regulatory actions that the Office of Management and Budget (OMB) exempted from Executive Order 12866 review.

This proposed rule has been reviewed under Executive Order 13175—Consultation and Coordination with Indian Tribal Governments, which requires agencies to consider whether their rulemaking actions would have tribal implications. The Agricultural Marketing Service (AMS) has determined this proposed rule is unlikely to have substantial direct effects on one or more Indian tribes, on the relationship between the Federal Government and Indian tribes, or on the distribution of power and responsibilities between the Federal Government and Indian tribes.

This proposed rule has been reviewed under Executive Order 12988, Civil Justice Reform. This proposed rule is not intended to have retroactive effect.

The Act provides that administrative proceedings must be exhausted before parties may file suit in court. Under section 608c(15)(A) of the Act, any handler subject to an order may file with USDA a petition stating that the order, any provision of the order, or any obligation imposed in connection with the order is not in accordance with law and request a modification of the order or to be exempted therefrom. A handler is afforded the opportunity for a hearing on the petition. After the hearing, USDA would rule on the petition. The Act provides that the district court of the United States in any district in which the handler is an inhabitant, or has his or her principal place of business, has jurisdiction to review USDA's ruling on the petition, provided an action is filed not later than 20 days after the date of the entry of the ruling.

This proposed rule would amend administrative requirements in the Order regulating the roadside stand exemption, credit for market promotion activities, quality control, exempt dispositions, and interest and late charges provisions. In addition, the proposed rule would stay two sections of the administrative requirements that define almond butter and stipulate disposition in reserve outlets by handlers. These proposed changes modify the requirements to reflect updates in industry practices and are expected to help facilitate the orderly administration of the Order. The Board unanimously recommended these changes at meetings held on December 7, 2020, and June 17, 2021.

Multiple sections in the Order provide the authority for this proposed action. The authorities are cited with

the descriptions of each of the proposed changes in the following narrative.

Section 981.13 of the Order defines the term ''handler.'' The definition includes an exemption for roadside stand sales. Section 981.413 of the Order's administrative requirements further expounds roadside stand sales by setting certain conditions that must be met for sales to be exempted from regulation under the Order. This proposed rule would add language to the requirements to clarify that sales of almonds through E-commerce (electronic commerce) are not exempt from regulation under the roadside stand exemption.

Section 981.41(c) of the Order provides the authority to establish provisions for crediting a handler's direct expenditures for marketing promotion against that handler's assessment obligation. Section 981.441 of the Order's administrative requirements delineates the provisions that handlers must meet to have a portion of their marketing promotion expenditures, including paid advertising, credited against their pro rata assessment obligation. This provision is otherwise known as Credit-Back. This proposed rule would allow the Board, with the approval of the Secretary, to annually establish a limit on the Credit-Back amount allowed for a handler's expenditures on E-commerce. Further, this rule would modify the receipt submission and reimbursement requirements for the Credit-Back program and update the provisions for appealing the Board's Credit-Back decisions.

Section 981.42 of the Order provides the authority to establish quality control regulations for both incoming and outgoing product. Section 981.442 of the Order's administrative requirements establishes quality control regulations under that authority. Section 981.442(a) establishes the quality requirements for incoming product received by handlers. Section 981.442(b) establishes the quality requirements for outgoing product prior to being shipped by handlers.

This proposal would modify provisions in § 981.442(a) to clarify ambiguous language, remove irrelevant dates, and more clearly define ''accepted user'' as it is referenced in the regulations. The proposed rule would also relax the requirements for handlers in meeting their disposition obligation under the regulations. The incoming quality requirements would be amended to allow inedible kernels, foreign material, and other defects sorted from off-site cleaning facilities to be credited to a handler's disposition obligation. In addition, almond meal would be allowed to meet the non-inedible portion of the disposition obligation, with the meal content to be determined in a manner acceptable to the Board.

In § 981.442(b), the proposed rule would amend the regulations to facilitate handlers utilizing off-site cleaning and treatment facilities in fulfillment of their quality control requirements. The proposal would allow the transfer of product for off-site cleaning without being considered a shipment, would designate off-site treatment facilities as ''custom processors,'' and would establish application and approval procedures for Board authorization of such custom processors. This action would also clarify the roles of the Technical Expert Review Panel (TERP) and the Board in administering the program as detailed in several provisions in § 981.442(b). Lastly, the proposed rule would refine the duties of a Direct Verifiable (DV) program auditor to disallow individuals who conduct process validations from being named as the DV auditor for that same equipment used in the treatment process.

Section 981.50 of the Order establishes handler reserve obligation requirements. Under those Order provisions, certain products are exempted from the reserve obligation, subject to the accountability of the Board. Section 981.450 establishes the provisions for exempt dispositions under the reserve obligation. This proposed rule would enhance the procedures currently in place for the Board to account for exempt dispositions. Under the proposed rule, outlets for exempted product would need to be pre-approved by the Board in accordance with the requirements contained in § 981.442(a)(7).

Section 981.66(b) of the Order establishes the conditions governing the disposition of reserve product. Within that paragraph, diversion of reserve almonds to be manufactured into almond butter is listed as an allowable outlet for such product. Section 981.466 further defines ''almond butter'' as used in § 981.66. The expanded definition of almond butter is no longer relevant in the administration of the program. The proposed rule would stay § 981.466 indefinitely.

Section 981.467 establishes the requirements regarding the disposition in reserve outlets by handlers. The section details the establishment of agents of the Board, delineates reserve credit in satisfaction of a reserve obligation, sets minimum prices, and establishes certain dates pertaining to the reserve disposition obligations. As the Order is not currently regulating volume, and a significant portion of the requirements is outdated, the provisions in § 981.467 are not currently relevant to the administration of the Order. As such, this proposed rule would stay the entire section indefinitely.

Lastly, § 981.481 stipulates the requirements for submission of handler assessment payments, which includes documentary requirements for proof of timely submission of assessment payments. Other than actual receipt of payment in the Board's office within 30 days of the invoice date on the handler's statement, the current provisions only identify the U.S. Postal Service postmark as proof of timely submission. This proposed rule would add ''or by some other verifiable delivery tracking system'' to allow handlers alternative delivery methods.

The Board believes that the changes recommended herein are necessary to update the Order's administrative requirements to adapt to changes in the industry and to reflect current industry practices. Many of the revisions may be considered conforming changes, but the proposed rule also makes changes to the Credit-Back provisions and quality control regulations that the Board views as essential to the continued efficient administration of the Order. The proposed changes contained herein are expected to facilitate the orderly marketing of California almonds and benefit growers and handlers in the industry.

Initial Regulatory Flexibility Analysis

Pursuant to requirements set forth in the Regulatory Flexibility Act (RFA) (5 U.S.C. 601–612), the Agricultural Marketing Service (AMS) has considered the economic impact of this action on small entities. Accordingly, AMS has prepared this initial regulatory flexibility analysis.

The purpose of the RFA is to fit regulatory actions to the scale of businesses subject to such actions in order that small businesses will not be unduly or disproportionately burdened. Marketing orders issued pursuant to the Act, are unique in that they are brought about through group action of essentially small entities acting on their own behalf.

There are approximately 7,600 almond growers in the production area and approximately 100 handlers subject to regulation under the Order. Small agricultural producers are defined by the Small Business Administration (SBA) as those having annual receipts of less than $1,000,000, and small agricultural service firms are defined as

those having annual receipts of less than $30,000,000 (13 CFR 121.201).

The National Agricultural Statistics Service (NASS) reported in its 2017 Census of Agriculture (Census) that there were 7,611 almond farms in the production area, of which 6,683 had bearing acres. Additionally, the Census indicates that out of the 6,683 California farms with bearing acres of almonds, 4,425 (66 percent) have fewer than 100 bearing acres.

In another publication, NASS reported a 2019 crop year average yield of 2,160 pounds per acre and a season average grower price of $2.43 per pound. Therefore, a 100-acre farm with an average yield of 2,160 pounds per acre would produce about 216,000 pounds of almonds (2,160 pounds times 100 acres equals 216,000 pounds). At $2.43 per pound, that farm's production would be valued at $524,880 (216,000 pounds times $2.43 per pound equals $524,880). Since the Census indicated that 66 percent of California's almond farms are less than 100 acres, it could be concluded that the majority of California almond growers had annual receipts from the sale of almonds of less than $524,880 for the 2019–20 crop year, which is below the SBA threshold of $1,000,000 for small producers. Therefore, the majority of growers may be classified as small businesses.

To estimate the proportion of almond handlers that would be considered small businesses, it was assumed that the unit value per pound of almonds exported in a particular year could serve as a representative almond price at the handler level. A unit value for a commodity is the value of exports divided by the quantity exported. Data from the Global Agricultural Trade System (GATS) database of USDA's Foreign Agricultural Service showed that the value of almond exports from August 2019 to July 2020 (combining shelled and inshell) was $4.691 billion. The quantity of almond exports over that time-period was 1.78 billion pounds. Dividing the export value by the quantity yields a unit value of $2.64 per pound ($4.691 billion divided by 1.78 billion pounds equals $2.64).

NASS estimated that the California almond industry produced 2.55 billion pounds of almonds in 2019. Applying the $2.64 derived representative handler price per pound to total industry production results in an estimated total revenue at the handler level of $6.73 billion (2.55 billion pounds × $2.64 per pound). With an estimated 100 handlers in the California almond industry, average revenue per handler would be approximately $67.3 million ($6.73 billion divided by 100). Assuming a normal distribution of revenues, most almond handlers shipped almonds valued at more than $30,000,000 during the 2019–20 crop year. Therefore, the majority of handlers may be classified as large businesses.

This proposed rule would revise multiple provisions in the Order's administrative requirements. This proposal would amend regulations covering the Order's roadside stand exemption, credit for market promotion activities, quality control, exempt dispositions, and interest and late charges provisions. In addition, it would stay regulations contained in §§ 981.466 and 981.467. One of the sections defines almond butter and the other regulates almond disposition in reserve outlets by handlers. Both sections would be stayed indefinitely.

More specifically, the proposed rule would add language in § 981.413 to clarify that sales of almonds through E-commerce are not exempt from regulation under the roadside stand exemption.

In addition, the action would modify § 981.441 to allow the Board, with the approval of the Secretary, to annually establish a limit on the Credit-Back amount allowed for a handler's expenditures on E-commerce. Further, this rule would modify the receipt submission and reimbursement requirements for the Credit-Back program, as well as update the provisions for appealing the Board's Credit-Back decisions.

In § 981.442(a), the proposed rule would clarify ambiguous language, remove irrelevant dates, and more clearly define the term ''accepted user'' as it is referenced in the regulations. It would also relax the requirements for handlers in meeting their disposition obligation under the Order.

In § 981.442(b), the proposed rule would allow the transfer of product for off-site cleaning without being considered a shipment, designate off-site treatment facilities as ''custom processors,'' and establish the application and approval procedures for Board authorization of custom processors. This proposal would also clarify the roles of the TERP and the Board in administering the program in several subparagraphs in the section. Further, the proposed rule would refine the definition of a DV program auditor to disallow individuals who conduct process validations from being named as the DV auditor for that same equipment used in the treatment process.

Additionally, this proposed rule would amend § 981.450 to require outlets for exempted product be Board-approved, in accordance with § 981.442(a)(7).

Further, under the proposed action, § 981.466, which defines ''almond butter'' as it is used in § 981.66(b), is no longer relevant in the administration of the program and would be stayed indefinitely. In addition, as the Order is not currently regulating volume, § 981.467 is not necessary for the administration of the Order and would also be stayed indefinitely.

Lastly, this action would revise § 981.481 by adding ''or by some other verifiable delivery tracking system'' to the requirements to allow handlers alternative trackable delivery methods for demonstration of timely submission of assessment payments.

The authorities for the proposed changes above are contained in §§ 981.13, 981.41, 981.42, 981.50, 981.66, 981.67, and 981.81 of the Order.

The Board believes that the administrative requirement revisions recommended herein are necessary to reflect changes in the industry and to update the regulations to reflect current practices. Many of the modifications may be considered conforming changes, but this proposal also makes substantive changes to the Credit-Back provisions and quality control requirements that the Board views as essential to the efficient administration of the Order. The proposed changes contained herein are expected to facilitate the orderly marketing of California almonds and benefit growers and handlers in the industry. The Board unanimously recommended these changes at meetings held on December 7, 2020, and June 17, 2021.

AMS anticipates that this proposed rule would impose minimal, if any, additional costs on handlers or growers, regardless of size. The proposed changes to the administrative requirements are intended to clarify certain provisions, remove ambiguous and obsolete language, and adapt the requirements to facilitate the orderly marketing of almonds. The benefits derived from this proposed rule are not expected to be disproportionately more or less for small handlers or growers than for larger entities.

The Board considered alternatives to this action, including making no changes to the current requirements, only making changes to some of the requirements, and recommending the changes be considered as two separate rulemaking actions. Prior to the recommendation of the Board, the Board's Almond Quality, Food Safety and Services Committee reviewed the program, surveyed handlers, and unanimously recommended this action

to the Board. After consideration of all the alternatives, and in consultation with USDA, the Board determined that making all the recommended changes, collectively in one rule, would be the best option to facilitate the Order's administration, contribute to the orderly marketing of almonds, and provide the greatest benefit to growers and handlers while maintaining the integrity of the Order.

Further, the Board's meetings were widely publicized throughout the California almond industry, and all interested persons were invited to attend the meetings and participate in Board deliberations. Like all Board and subcommittee meetings, the December 7, 2020, and June 17, 2021, meetings were public meetings, and all entities, both large and small, were able to express their views on this issue. Finally, interested persons are invited to submit comments on this proposed rule, including the regulatory and information collection impacts of this proposed action on small businesses.

In accordance with the Paperwork Reduction Act of 1995, (44 U.S.C. Chapter 35), the Order's information collection requirements have been previously approved by the Office of Management and Budget (OMB) and assigned OMB Nos. 0581–0178 (Vegetable and Specialty Crops) and 0581–0242 (Almond Salmonella). This proposed rule announces AMS's intent to request approval from OMB for amendments made to existing information collections under OMB Nos. 0581–0178 and 0581–0242, and for a new information collection under OMB No. 0581–NEW.

Upon finalization of the proposed rule, AMS will submit a Justification for Change to OMB for the Statement of Intent form contained in the ABC Credit-Back Guide (OMB No. 0581–0178). The form is necessary to administer the Credit-Back provisions as established in § 981.441 of the Order's requirements. This proposed rule would change the number of days that the applicant is afforded to submit all necessary paperwork for proper evaluation of their Credit-Back claim from 76 days to 60 days. The Credit-Back Statement of Intent form included in the Credit-Back Guide would be changed accordingly.

In addition, also upon finalization of the proposed rule, AMS will submit a Justification for Change to OMB for the ABC Form 52—Direct Verifiable (DV) Program for Further Processing of Untreated Almonds Application Form (OMB No. 0581–0242). The form is necessary to administer the DV Program established by § 981.442(b)(6)(i) in the Order's quality control requirements. The proposed rule would change the body that approves DV Program applications from the TERP to the Board. The instructions that accompany ABC Form 52 would need to be revised accordingly.

Lastly, this proposed rule would create a new form for California almond handlers, titled ABC Form 55—Custom Processor Application.

Title: Custom Processor Application (7 CFR part 981).

OMB Number: 0581–NEW.

Type of Request: New Collection.

Abstract: The information requirements in this request are essential to carry out the intent of the Act and to administer the Order. The Order is effective under the Act, and USDA is responsible for the oversight of the Order's administration.

The Order's quality control requirements for outgoing product require handlers to subject their almonds to a treatment process or processes prior to shipment to reduce potential *Salmonella* bacteria contamination. The Order's quality control requirements allow handlers to utilize off-site treatment facilities to fulfill that requirement. The Committee unanimously recommended that the Order's quality control requirements be amended to define off-site treatment facilities located within the production area as ''custom processors'' and to require such custom processors to annually apply to the Board for approval.

An individual desiring approval as a custom processor must demonstrate that their facility meets the Order's treatment process requirements and must submit an application to the Board. This form, numbered ABC Form 55 and titled ''Custom Processor Application,'' would be submitted directly to the Board once each year no later than July 31. The application would provide the Board with the name of the applicant, the location of each treatment facility covered by the application, applicant contact information, and certification that the applicant's technology and equipment provide a treatment process that has been validated by a Board-approved process authority.

The Order authorizes the Board to collect certain information necessary for the administration of the Order. The information collected would only be used by authorized representatives of the USDA, including the AMS Specialty Crops Program regional and headquarters staff, and authorized employees of the Board. All proprietary information would be kept confidential in accordance with the Act and the Order.

The proposed request for new information collection under the Order is as follows:

Custom Processor Application

Estimate of Burden: Public reporting burden for this collection of information is estimated to be an average of 0.5 hours per response.

Respondents: Nut processors located within the Order's area of production.

Estimated Number of Respondents: 25.

Estimated Number of Responses per Respondent: 1.

Estimated Total Annual Responses: 25.

Estimated Total Annual Burden on Respondents: 12.5 hours.

Comments are invited on: (1) Whether the proposed collection of information is necessary for the proper performance of the functions of the Agency, including whether the information will have practical utility; (2) the accuracy of the Agency's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used; (3) ways to enhance the quality, utility, and clarity of the information to be collected; and (4) ways to minimize the burden of the collection of information on those who are to respond, including the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology.

Comments should reference OMB No. 0581–NEW and the marketing order for almonds grown in California. Comments should be sent to the USDA in care of the Docket Clerk at the previously mentioned address or at *https://www.regulations.gov.*

All responses to this notice will be summarized and included in the request for OMB approval. All comments received will become a matter of public record and will be available for public inspection during regular business hours at the address of the Docket Clerk or at *https://www.regulations.gov.*

If this proposed rule is finalized, this information collection will be merged with the forms currently approved under OMB No. 0581–0242 (Almond Salmonella).

As with all Federal marketing order programs, reports and forms are periodically reviewed to reduce information requirements and duplication by industry and public sector agencies. USDA has not identified any relevant Federal rules that duplicate, overlap, or conflict with this proposed rule.

AMS is committed to complying with the E-Government Act, to promote the use of the internet and other information technologies to provide increased opportunities for citizen access to Government information and services, and for other purposes.

Further, the Board's meetings are widely publicized throughout the California almond industry, and all interested persons are invited to attend the meetings and participate in Board deliberations on all issues. Like all Board meetings, the December 7, 2020, and June 17, 2021, meetings were open to the public, and all entities, both large and small, were able to express their views on this issue. Also, the Board has several appointed committees to review certain issues and make recommendations to the Board. The Board's Almond Quality, Food Safety, and Services Committee met several times in 2019 and discussed this issue in detail. Those meetings were also public meetings, and both large and small entities were able to participate and express their views. Finally, interested persons are invited to submit comments on this proposed rule, including the regulatory and information collection impacts of this action on small businesses.

A small business guide on complying with fruit, vegetable, and specialty crop marketing agreements and orders may be viewed at: *https://www.ams.usda.gov/rules-regulations/moa/small-businesses.* Any questions about the compliance guide should be sent to Richard Lower at the previously mentioned address in the **FOR FURTHER INFORMATION CONTACT** section.

A 60-day comment period is provided to allow interested persons to respond to this proposal. All written comments timely received will be considered before a final determination is made on this matter.

List of Subjects in 7 CFR Part 981

Marketing agreements, Nuts, Reporting and recordkeeping requirements.

For the reasons set forth in the preamble, the Agricultural Marketing Service proposes to amend 7 CFR part 981 as follows:

PART 981—ALMONDS GROWN IN CALIFORNIA

■ 1. The authority citation for 7 CFR part 981 continues to read as follows:

Authority: 7 U.S.C. 601–674.

■ 2. Amend § 981.413 by adding a sentence at the end of the paragraph to read as follows:

§ 981.413 Roadside stand exemption.

* * * Sales of almonds through E-commerce are not eligible for this exemption.

■ 3. Amend § 981.441 by revising paragraphs (e)(4)(ii)(K), (e)(5), (e)(6)(ii) through (iv), and (f) to read as follows:

§ 981.441 Credit for market promotion activities, including paid advertising.

* * * * *

(e) * * *

(4) * * *

(ii) * * *

(K) Development and use of website on the internet for advertising and public relations purposes, including E-commerce (mail ordering through the internet): *Provided,* That Credit-Back for such activities shall be limited to a specific amount per crop year, to be established in conjunction with the approval of the Board's annual budget by the Secretary. No credit shall be given for costs for E-commerce administration, Extranet (restricted websites within the internet), Intranet (inter-office communication network), or portions of a website that target the farming or grower trade.

* * * * *

(5) If the handler is promoting pursuant to a contract with the Foreign Agricultural Service (FAS) of the U.S. Department of Agriculture (USDA) and/or the California Department of Food and Agriculture (CDFA), such activities must also meet the requirements of paragraphs (e)(1), (2), (3), (4), and (6) of this section. Unless the Board is administering the foreign marketing program, such activities shall not be eligible for Credit-Back unless the handler certifies that it was not and will not be reimbursed by either FAS or the CDFA for the amount claimed for Credit-Back, and has on record with the Board all claims for reimbursement made to FAS and/or the CDFA. Foreign market expenses paid by third parties as part of a handler's contract with FAS or CDFA will not be eligible for Credit-Back.

(6) * * *

(ii) Handlers may receive credit against their assessment obligation up to the year-to-date advertising amount of the assessment, less the year-to-date reimbursed claims: *Provided,* That handlers submit the required documentation for a qualified activity at least 2 weeks prior to the mailing of each of the Board's first and second assessment notices, and at least 3 weeks prior to the mailing of each of the Board's third and fourth assessment notices in a crop year. In all other instances, handlers must remit the advertising assessment to the Board when billed, and a refund will be issued to the extent of proven, qualified activities.

(iii) In addition to the credit against an assessment obligation as provided in paragraph (e)(6)(ii) of this section, the Board will issue Credit-Back reimbursements, by check or other means, on June 30 for any claim submission received by May 31 of the same crop year.

(iv) The final opportunity to submit a claim for any given crop year requires submission of notice to the Board by August 15 of the following crop year. Notice must be given using the Statement of Intent form that is included in the Credit-Back Guide. Final claim submissions for activities outlined in the Statement of Intent must be submitted with all required elements no more than 60 days after the close of the crop year.

(f) If a determination is made by the Board staff that a particular promotional activity is not eligible for Credit-Back because it does not meet the criteria specified in this section, or for any other reason, the affected handler may request a Board-designated committee to review the Board staff's decision. If the affected handler disagrees with the decision, the handler may request that the Board review the designated committee's decision. If the handler disagrees with the decision of the Board, the handler, through the Board, may request that the Secretary review the Board's decision. Handlers have the right to request anonymity in the review of their appeal. The Secretary maintains the right to review any decisions made by the aforementioned bodies at his/her discretion.

■ 4. Amend § 981.442 by:

■ a. Revising paragraphs (a)(1), (a)(4)(i), and (a)(5);

■ b. Revising the introductory text of paragraph (b);

■ c. Revising paragraphs (b)(2), (b)(3)(i) and (v), and (b)(4)(i) and (v);

■ d. Revising the introductory text of paragraph (b)(6)(i); and

■ e. Revising paragraphs (b)(6)(i)(A), (C), and (D).

The revisions read as follows:

§ 981.442 Quality control.

(a) * * *

(1) *Sampling.* Each handler shall cause a representative sample of almonds to be drawn from each lot of any variety received from any incoming source. The sample shall be drawn before inedible kernels are removed from the lot after hulling/shelling, or before the lot is processed or stored by the handler. For receipts at premises with mechanical sampling equipment

and under contracts providing for payment by the handler to the grower for sound meat content, samples shall be drawn by the handler in a manner acceptable to the Board and the inspection agency. The inspection agency shall make periodic checks of the mechanical sampling procedures. For all other receipts, including but not limited to field examination and purchase receipts, accumulations purchased for cash at the handler's door or from an accumulator, or almonds of the handler's own production, sampling shall be conducted or monitored by the inspection agency in a manner acceptable to the Board. All samples shall be bagged and identified in a manner acceptable to the Board and the inspection agency.

* * * * *

(4) * * *

(i) The weight of inedible kernels in excess of 2 percent of kernel weight reported to the Board of any variety received by a handler shall constitute that handler's disposition obligation. For any almonds sold inshell, the weight may be reported to the Board and that disposition obligation for that variety reduced proportionately.

* * * * *

(5) *Meeting the disposition obligation.* Each handler shall meet its disposition obligation by delivering packer pickouts, kernels rejected in blanching, pieces of kernels, meal accumulated in manufacturing, or other material, to Board-approved accepted users, which can include, but is not limited to, crushers, feed manufacturers, feeders, or dealers in nut wastes, located withing the production area. Inedible kernels, foreign material, and other defects sorted from edible kernels by off-site cleaning facilities may be used towards that handler's disposition obligation or destroyed. Handlers shall notify the Board at least 72 hours prior to delivery of product to an off-site cleaning facility or accepted user location: *Provided,* That the Board or its employees may lessen this notification time whenever it determines that the 72 hour requirement is impracticable. The Board may supervise deliveries at its option. In the case of a handler having an annual total obligation of less than 1,000 pounds, delivery may be to the Board in lieu of an accepted user, in which case the Board would certify the disposition lot and report the results to the USDA. For dispositions by handlers with mechanical sampling equipment, samples may be drawn by the handler in a manner acceptable to the Board and the inspection agency. For all other dispositions, samples shall be drawn by or under supervision of the inspection agency. Upon approval by the Board and the inspection agency, sampling may be accomplished at the accepted user's destination. The edible and inedible almond meat content of each delivery shall be determined by the inspection agency and reported by the inspection agency to the Board and the handler. The handler's disposition obligation will be credited upon satisfactory completion of ABC Form 8. ABC Form 8, Part A, is filled out by the handler, and Part B by the accepted user. At least 50 percent of a handler's total crop year inedible disposition obligation shall be satisfied with dispositions consisting of inedible kernels as defined in § 981.408: *Provided,* That this 50 percent requirement shall not apply to handlers with total annual obligations of less than 1,000 pounds. Each handler's disposition obligation shall be satisfied when the almond meat content of the material delivered to accepted users equals the disposition obligation, but no later than September 30 succeeding the crop year in which the obligation was incurred. Almond meal can be used for meeting the non-inedible portion of the obligation. Meal content shall be determined in a manner acceptable to the Board.

* * * * *

(b) *Outgoing.* Pursuant to § 981.42(b), and except as provided in § 981.13 and in paragraph (b)(6) of this section, handlers shall subject their almonds to a treatment process or processes prior to shipment to reduce potential *Salmonella* bacteria contamination in accordance with the provisions of this section. Temporary transfer by a handler to an off-site cleaning facility is not considered a shipment under this section. Handlers may utilize off-site cleaning facilities within the production area, on record with the Board, to provide sorting services to separate inedible kernels, foreign material, and other defects from edible kernels. Product sent by a handler to an off-site cleaning facility is considered a temporary transfer, with ownership maintained by the handler, and accountability required for all product fractions and handler obligations pursuant to § 981.42.

* * * * *

(2) *On-site versus off-site treatment.* Handlers shall subject almonds to a treatment process or processes prior to shipment either at their handling facility (on-site) or a custom processor (defined as a Board-approved off-site treatment facility located within the production area subject to the provisions of paragraph (b)(4)(v) of this section). Transportation of almonds by a handler to a custom processor shall not be deemed a shipment. A handler with an on-site treatment process or processes may use such facility to act as a custom processor for other handlers.

(3) * * *

(i) Validation means that the treatment technology and equipment have been demonstrated to achieve in total a minimum 4-log reduction of *Salmonella* bacteria in almonds. Validation data prepared by a Board-approved process authority must be submitted to the Board, and accepted by the TERP, for each piece of equipment used to treat almonds prior to its use under the program.

* * * * *

(v) The TERP, in coordination with the Board, may revoke any approval for cause. The Board shall notify the process authority in writing of the reasons for revoking the approval. Should the process authority disagree with the decision, they may appeal the decision in writing to the Board, and ultimately to USDA. A process authority whose approval has been revoked must submit a new application to the TERP and await approval.

(4) * * *

(i) By May 31, each handler shall submit to the Board a Handler Treatment Plan (Treatment Plan) for the upcoming crop year. A Treatment Plan shall describe how a handler plans to treat his or her almonds and must address specific parameters as outlined by the Board for the handler to ship almonds. Such plan shall be reviewed by the Board, in conjunction with the inspection agency, to ensure it is complete and can be verified, and be approved by the Board. Almonds sent by a handler for treatment at a custom processing facility affiliated with another handler shall be subject to the approved Treatment Plan utilized at that facility. Handlers shall follow their own approved Treatment Plans for almonds sent to custom processors that are not affiliated with another handler.

* * * * *

(v) Custom processors shall provide access to the inspection agency and Board staff for verification of treatment and review of treatment records. Custom processors shall utilize technologies that have been determined to achieve, in total, a minimum 4-log reduction of Salmonella bacteria in almonds, pursuant to a letter of recommendation issued by FDA or accepted by TERP. Custom processors must submit a Custom Processor Application, ABC Form XX, to the Board annually by July

31. A custom processor who submits a timely application, and utilizes a treatment process or processes that has been validated by a Board-approved process authority and approved by the Board in conjunction with the TERP, shall be approved by the Board for handler use. The Board may revoke any such approval for cause. The Board shall notify the custom processor of the reasons for revoking the approval. Should the custom processor disagree with the Board's decision, it may appeal the decision in writing to USDA. Handlers may treat their almonds only at custom processor treatment facilities that have been approved by the Board.

* * * * *

(6) * * *

(i) Handlers may ship untreated almonds for further processing directly to manufacturers located within the U.S., Canada, or Mexico. This program shall be termed the Direct Verifiable (DV) program. Handlers may only ship untreated almonds to manufacturers who have submitted ABC Form No. 52, ''Application for Direct Verifiable (DV) Program for Further Processing of Untreated Almonds,'' and have been approved by the Board. Such almonds must be shipped directly to approved manufacturing locations, as specified on Form No. 52. Such manufacturers (DV Users) must submit an initial Form No. 52 to the Board for review and approval in conjunction with the TERP. Should the applicant disagree with the Board's decision concerning approval, it may appeal the decision in writing to the Board, and ultimately to USDA. For subsequent crop years, approved DV Users with no changes to their initial application must send the Board a letter, signed and dated, indicating that there are no changes to the application the Board has on file. Approved DV Users desiring to make changes to their approved application must resubmit Form No. 52 to the Board for approval. The TERP, in coordination with the Board, may revoke any approval for cause. The Board shall notify the DV User in writing of the reasons for revoking the approval. Should the DV User disagree with the decision, it may appeal the decision in writing to the Board, and ultimately to USDA. A DV User whose approval has been revoked must submit a new application to the Board and await approval. The Board shall issue a DV User code to an approved DV User. Handlers must reference such code in all documentation accompanying the lot and identify each container of such almonds with the term ''unpasteurized.'' Such lettering shall be on one outside principal display panel, at least ½ inch in height, clear and legible. If a third party is involved in the transaction, the handler must provide sufficient documentation to the Board to track the shipment from the handler's facility to the approved DV user. While a third party may be involved in such transactions, shipments to a third party and then to a manufacturing location are not permitted under the DV program. Approved DV Users shall:

(A) Subject such almonds to a treatment process or processes using technologies that achieve in total a minimum 4-log reduction of *Salmonella* bacteria as determined by the FDA or established by a process authority accepted by the TERP, in accordance with and subject to the provisions and procedures of paragraph (b)(3) of this section. Establish means that the treatment process and protocol have been evaluated to ensure the technology's ability to deliver a lethal treatment for *Salmonella* bacteria in almonds to achieve a minimum 4-log reduction;

* * * * *

(C) Have their treatment technology and equipment validated by a Board-approved process authority, and accepted by the TERP. Documentation must be provided with their DV application to verify that their treatment technology and equipment have been validated by a Board-approved process authority. Such documentation shall be sufficient to demonstrate that the treatment processes and equipment achieve a 4-log reduction in *Salmonella* bacteria. Treatment technology and equipment that have been modified to a point where operating parameters such as time, temperature, or volume change, shall be revalidated;

(D) Have their technology and procedures verified by a Board-approved DV auditor to ensure they are being applied appropriately. A DV auditor may not be an employee of the manufacturer that they are auditing. A DV auditor may not be the same individual who conducted the process validation accepted by the TERP for the equipment being audited. DV auditors must submit a report to the Board after conducting each audit. DV auditors must submit an initial application to the Board on ABC Form No. 53, ''Application for Direct Verifiable (DV) Program Auditors,'' and be approved by the Board in coordination with the TERP. Should the applicant disagree with the decision concerning approval, they may appeal the decision in writing to the Board, and ultimately to USDA. For subsequent crop years, approved DV auditors with no changes to their initial application must send the Board a letter, signed and dated, indicating that there are no changes to the application the Board has on file. Approved DV auditors whose status has changed must submit a new application. The Board, in coordination with the TERP, may revoke any approval for cause. The Board shall notify the DV auditor in writing of the reasons for revoking the approval. Should the DV auditor disagree with the decision to revoke, it may appeal the decision in writing to the Board, and ultimately to USDA. A DV auditor whose approval has been revoked must submit a new application to the Board and await approval;

* * * * *

■ 5. Revise § 981.450 to read as follows:

§ 981.450 Exempt dispositions.

As provided in § 981.50, any handler disposing of almonds for crushing into oil, or for animal feed, may have the kernel weight of these almonds excluded from their program obligations, so long as:

(a) The handler qualifies as, or delivers such almonds to, a Board-approved accepted user;

(b) Each delivery is made directly to the accepted user by June 30 of each crop year; and

(c) Each delivery is certified to the Board by the handler on ABC Form 8.

§§ 981.466 and 981.467 [Stayed]

■ 6. Sections 981.466 and 981.467 are stayed indefinitely.

■ 7. Revise § 981.481 to read as follows:

§ 981.481 Interest and late payment charges.

(a) Pursuant to § 981.81(e), the Board shall impose an interest charge on any handler whose assessment payment has not been received in the Board's office within 30 days of the invoice date shown on the handler's statement, or the envelope containing the payment has not been legibly postmarked by the U.S. Postal Service or some other verifiable delivery tracking system, as having been remitted within 30 days of the invoice date. The interest charge shall be a rate of one- and one-half percent per month and shall be applied to the unpaid assessment balance for the number of days all or any part of the unpaid balance is delinquent beyond the 30-day payment period.

(b) In addition to the interest charge specified in paragraph (a) of this section, the Board shall impose a late payment charge on any handler whose payment has not been received in the Board's office, or the envelope containing the payment legibly

postmarked by the U.S. Postal Service or some other verifiable delivery tracking system, within 60 days of the invoice date. The late payment charge shall be 10 percent of the unpaid balance.

Erin Morris,

Associate Administrator, Agricultural Marketing Service.

[FR Doc. 2022–03460 Filed 2–18–22; 8:45 am]

BILLING CODE P

DEPARTMENT OF HOMELAND SECURITY

Coast Guard

33 CFR Part 165

[Docket Number USCG–2022–0054]

RIN 1625–AA87

Security Zone; Presidential Security Zone, Palm Beach, FL

AGENCY: Coast Guard, DHS.

ACTION: Notice of proposed rulemaking.

SUMMARY: The Coast Guard is proposing to disestablish the presedential security zone that encompasses certain waters of the Lake Worth Lagoon, Intracoastal Waterway (ICW), and Atlantic Ocean near the Mar-A-Lago Club, and the Southern Boulevard Bridge in Palm Beach, Florida (FL). The security zone is no longer needed to protect official parties, public, or surrounding waterways from terrorist acts, sabotage or other subversive acts, accidents, or other events of a similar nature. This proposed action would remove existing regulations that restrict vessel movement through the area. We invite your comments on this proposed rulemaking.

DATES: Comments and related material must be received by the Coast Guard on or before March 24, 2022.

ADDRESSES: You may submit comments identified by docket number USCG–2022–0054 using the Federal Decision Making Portal at *https://www.regulations.gov.* See the ''Public Participation and Request for Comments'' portion of the **SUPPLEMENTARY INFORMATION** section for further instructions on submitting comments.

FOR FURTHER INFORMATION CONTACT: If you have questions about this proposed rulemaking, call or email LTJG Ben Adrien, Waterways Management Division Chief, U.S. Coast Guard; telephone (305) 535–4307, email *Benjamin.D.Adrien@uscg.mil.*

SUPPLEMENTARY INFORMATION:

I. Table of Abbreviations

CFR Code of Federal Regulations
DHS Department of Homeland Security
FR Federal Register
NPRM Notice of proposed rulemaking
§ Section
U.S.C. United States Code

II. Background, Purpose, and Legal Basis

On May 21, 2018, the United States Coast Guard established a security zone to protect the President of the United States, members of the First Family, and/or other persons under the protection of the Secret Service when staying at the Mar-A-Lago Club in Palm Beach, FL. The security zone is described 33 CFR 165.785. With the inauguration of a new President of the United States on January 20, 2021, the Mar-A-Lago Club security zone is no longer needed.

The purpose of this rulemaking is to disestablish a security zone in certain waters of the Lake Worth Lagoon, Intercoastal Waterway (ICW), and Atlantic Ocean that are no longer need to protect official parties staying at the Mar-A-Lago Club. The Coast Guard is proposing this rulemaking under authority in 46 U.S.C. 70034 (previously 33 U.S.C. 1231).

III. Discussion of Proposed Rule

The Coast Guard is proposing to disestablish the existing security zone published in 33 CFR 165.785. The regulation places unnecessary restrictions on vessel movement through the Lake Worth Lagoon, ICW, and Atlantic Ocean near the Mar-A-Lago Club and the Southern Boulevard Bridge in Palm Beach. The regulatory text we are proposing appears at the end of this document.

IV. Regulatory Analyses

We developed this proposed rule after considering numerous statutes and Executive orders related to rulemaking. Below we summarize our analyses based on a number of these statutes and Executive orders, and we discuss First Amendment rights of protestors.

A. Regulatory Planning and Review

Executive Orders 12866 and 13563 direct agencies to assess the costs and benefits of available regulatory alternatives and, if regulation is necessary, to select regulatory approaches that maximize net benefits. This NPRM has not been designated a ''significant regulatory action,'' under Executive Order 12866. Accordingly, the NPRM has not been reviewed by the Office of Management and Budget (OMB).

This regulatory action determination is based on the removal of regulatory requirements for vessel navigation in the Lake Worth Lagoon, ICW, and Atlantic Ocean near the Mar-A-Lago Club and the Southern Boulevard Bridge in Palm Beach.

B. Impact on Small Entities

The Regulatory Flexibility Act of 1980, 5 U.S.C. 601–612, as amended, requires Federal agencies to consider the potential impact of regulations on small entities during rulemaking. The term ''small entities'' comprises small businesses, not-for-profit organizations that are independently owned and operated and are not dominant in their fields, and governmental jurisdictions with populations of less than 50,000. The Coast Guard certifies under 5 U.S.C. 605(b) that this proposed rule would not have a significant economic impact on a substantial number of small entities.

While some owners or operators of vessels intending to transit the Lake Worth Lagoon, ICW, and Atlantic Ocean, near the Mar-A-Lago Club and the Southern Boulevard Bridge in Palm Beach, may be small entities, for the reasons stated in section IV.A above, this proposed rule would not have a significant economic impact on any vessel owner or operator.

If you think that your business, organization, or governmental jurisdiction qualifies as a small entity and that this proposed rule would have a significant economic impact on it, please submit a comment (see **ADDRESSES**) explaining why you think it qualifies and how and to what degree this rule would economically affect it.

Under section 213(a) of the Small Business Regulatory Enforcement Fairness Act of 1996 (Pub. L. 104–121), we want to assist small entities in understanding this proposed rule. If the proposed rule would affect your small business, organization, or governmental jurisdiction and you have questions concerning its provisions or options for compliance, please call or email the person listed in the **FOR FURTHER INFORMATION CONTACT** section. The Coast Guard will not retaliate against small entities that question or complain about this proposed rule or any policy or action of the Coast Guard.

C. Collection of Information

This proposed rule would not call for a new collection of information under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501–3520).

D. Federalism and Indian Tribal Governments

A rule has implications for federalism under Executive Order 13132 (Federalism), if it has a substantial direct effect on the States, on the relationship between the National Government and the States, or on the distribution of power and responsibilities among the various levels of government. We have analyzed this proposed rule under that Order and have determined that it is consistent with the fundamental federalism principles and preemption requirements described in Executive Order 13132.

Also, this proposed rule does not have tribal implications under Executive Order 13175 (Consultation and Coordination with Indian Tribal Governments) because it would not have a substantial direct effect on one or more Indian tribes, on the relationship between the Federal Government and Indian tribes, or on the distribution of power and responsibilities between the Federal Government and Indian tribes. If you believe this proposed rule has implications for federalism or Indian tribes, please call or email the person listed in the **FOR FURTHER INFORMATION CONTACT** section.

E. Unfunded Mandates Reform Act

The Unfunded Mandates Reform Act of 1995 (2 U.S.C. 1531–1538) requires Federal agencies to assess the effects of their discretionary regulatory actions. In particular, the Act addresses actions that may result in the expenditure by a State, local, or tribal government, in the aggregate, or by the private sector of $100,000,000 (adjusted for inflation) or more in any one year. Though this proposed rule would not result in such an expenditure, we do discuss the potential effects of this proposed rule elsewhere in this preamble.

F. Environment

We have analyzed this proposed rule under Department of Homeland Security Directive 023–01, Rev. 1, associated implementing instructions, and Environmental Planning COMDTINST 5090.1 (series), which guide the Coast Guard in complying with the National Environmental Policy Act of 1969 (42 U.S.C. 4321–4370f), and have made a preliminary determination that this action is one of a category of actions that do not individually or cumulatively have a significant effect on the human environment. This proposed rule involves disestablishing a security zone. Such actions are categorically excluded from further review under paragraph L60(b) of Appendix A, Table 1 of DHS Instruction Manual 023–01–001–01, Rev. 1. We seek any comments or information that may lead to the discovery of a significant environmental impact from this proposed rule.

G. Protest Activities

The Coast Guard respects the First Amendment rights of protesters. Protesters are asked to call or email the person listed in the **FOR FURTHER INFORMATION CONTACT** section to coordinate protest activities so that your message can be received without jeopardizing the safety or security of people, places, or vessels.

V. Public Participation and Request for Comments

We view public participation as essential to effective rulemaking, and will consider all comments and material received during the comment period. Your comment can help shape the outcome of this rulemaking. If you submit a comment, please include the docket number for this rulemaking, indicate the specific section of this document to which each comment applies, and provide a reason for each suggestion or recommendation.

Submitting comments. We encourage you to submit comments through the Federal Decision Making Portal at *https://www.regulations.gov.* To do so, go to *https://www.regulations.gov,* type USCG–2022–0054 in the search box and click ''Search.'' Next, look for this document in the Search Results column, and click on it. Then click on the Comment option. If you cannot submit your material by using *https://www.regulations.gov,* call or email the person in the **FOR FURTHER INFORMATION CONTACT** section of this proposed rule for alternate instructions.

Viewing material in docket. To view documents mentioned in this proposed rule as being available in the docket, find the docket as described in the previous paragraph, and then select ''Supporting & Related Material'' in the Document Type column. Public comments will also be placed in our online docket and can be viewed by following instructions on the *https://www.regulations.gov* Frequently Asked Questions web page. We review all comments received, but we will only post comments that address the topic of the proposed rule. We may choose not to post off-topic, inappropriate, or duplicate comments that we receive.

Personal information. We accept anonymous comments. Comments we post to *https://www.regulations.gov* will include any personal information you have provided. For more about privacy and submissions to the docket in response to this document, see DHS's eRulemaking System of Records notice (85 FR 14226, March 11, 2020).

List of Subjects in 33 CFR Part 165

Harbors, Marine safety, Navigation (water), Reporting and record keeping requirements, Security measures, Waterways.

For the reasons discussed in the preamble, the Coast Guard is proposing to amend 33 CFR part 165 as follows:

PART 165—REGULATED NAVIGATION AREAS AND LIMITED ACCESS AREAS

■ 1. The authority citation for part 165 continues to read as follows:

Authority: 46 U.S.C. 70034, 70051; 33 CFR 1.05–1, 6.04–1, 6.04–6, and 160.5; Department of Homeland Security Delegation No. 00170.1, Revision No. 01.2.

§ 165.785 [Removed]

■ 2. Remove § 165.785.

Dated: February 15, 2022.

J.F. Burdian,

Captain, U.S. Coast Guard, Captain of the Port Miami.

[FR Doc. 2022–03600 Filed 2–18–22; 8:45 am]

BILLING CODE 9110–04–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA–R03–OAR–2021–0872; EPA–HQ–OAR–2021–0663; FRL–9493–01–R3]

Air Plan Disapproval; Maryland; Interstate Transport of Air Pollution for the 2015 8-Hour Ozone National Ambient Air Quality Standard

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: Pursuant to the Federal Clean Air Act (CAA or the Act), the Environmental Protection Agency (EPA) is proposing to disapprove a State Implementation Plan (SIP) submittal from Maryland intended to address interstate transport for the 2015 8-hour ozone national ambient air quality standard (2015 8-hour ozone NAAQS). The ''good neighbor'' or ''interstate transport'' provision requires that each state's SIP contain adequate provisions to prohibit emissions from within the state from significantly contributing to nonattainment or interfering with maintenance of the NAAQS in other states. This requirement is part of the broader set of ''infrastructure'' requirements, which are designed to ensure that the structural components of

each state's air quality management program are adequate to meet the state's responsibilities under the CAA. This disapproval, if finalized, will establish a 2-year deadline for the EPA to promulgate a Federal Implementation Plan (FIP) to address the relevant interstate transport requirements, unless the EPA approves a subsequent SIP submittal that meets these requirements. Disapproval does not start a mandatory sanctions clock.

DATES: Written comments must be received on or before April 25, 2022.

ADDRESSES: You may send comments, identified as Docket No. EPA–R03–OAR–2021–0872, by any of the following methods: Federal eRulemaking Portal at *https://www.regulations.gov* following the online instructions for submitting comments or via email to *gordon.mike@epa.gov.* Include Docket ID No. EPA–R03–OAR–2021–0872 in the subject line of the message. For further submission methods contact the person in the **FOR FURTHER INFORMATION CONTACT** section. Include Docket ID No. EPA–R03–OAR–2021–0872 in the subject line of the message.

Instructions: All submissions received must include the Docket ID No. for this rulemaking. Comments received may be posted without change to *https://www.regulations.gov/,* including any personal information provided. For detailed instructions on sending comments and additional information on the rulemaking process, see the ''Public Participation'' heading of the **SUPPLEMENTARY INFORMATION** section of this document. Out of an abundance of caution for members of the public and our staff, the EPA Docket Center and Reading Room are open to the public by appointment only to reduce the risk of transmitting COVID–19. Our Docket Center staff also continues to provide remote customer service via email, phone, and webform. For further information on EPA Docket Center services and the current status, please visit us online at *https://www.epa.gov/dockets.*

FOR FURTHER INFORMATION CONTACT: Michael Gordon, Planning & Implementation Branch (3AD30), Air & Radiation Division, U.S. Environmental Protection Agency, Region III, 1650 Arch Street, Philadelphia, Pennsylvania 19103. The telephone number is (215) 814–2039. Mr. Gordon can also be reached via electronic mail at *gordon.mike@epa.gov.*

SUPPLEMENTARY INFORMATION:

Public Participation: Submit your comments, identified by Docket ID No. EPA–R03–OAR–2021–0872, at *https://www.regulations.gov* (our preferred method), or the other method identified in the **ADDRESSES** section. Once submitted, comments cannot be edited or removed from the docket. The EPA may publish any comment received to its public docket. Do not submit to EPA's docket at *https://www.regulations.gov* any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. The EPA will generally not consider comments or comment contents located outside of the primary submission (*i.e.,* on the web, cloud, or other file sharing system).

There are two dockets supporting this action, EPA–R03–OAR–2021–0872 and EPA–HQ–OAR–2021–0663. Docket No. EPA–R03–OAR–2021–0872 contains information specific to Maryland, including the notice of proposed rulemaking. Docket No. EPA–HQ–OAR–2021–0663 contains additional modeling files, emissions inventory files, technical support documents, and other relevant supporting documentation regarding interstate transport of emissions for the 2015 8-hour ozone NAAQS which are being used to support this action. All comments regarding information in either of these dockets are to be made in Docket No. EPA–R03–OAR–2021–0872 only. For additional submission methods, please contact Mike Gordon, 215–814–2039, *gordon.mike@epa.gov.* For the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit *https://www.epa.gov/dockets/commenting-epa-dockets.* Due to public health concerns related to COVID–19, the EPA Docket Center and Reading Room are open to the public by appointment only. Our Docket Center staff also continues to provide remote customer service via email, phone, and webform. For further information and updates on EPA Docket Center services, please visit us online at *https://www.epa.gov/dockets.*

The EPA continues to carefully and continuously monitor information from the Centers for Disease Control and Prevention (CDC), local area health departments, and our Federal partners so that we can respond rapidly as conditions change regarding COVID–19.

The index to the docket for this action, Docket No. EPA–R03–OAR–2021–0872, is available electronically at *www.regulations.gov.* While all documents in the docket are listed in the index, some information may not be publicly available via the online docket due to docket file size restrictions, such as certain modeling files, or content (*e.g.,* CBI). Please contact the EPA Docket Center Services for further information.

Throughout this document, ''we,'' ''us,'' and ''our'' means the EPA.

I. Background

A. Description of Statutory Background

On October 1, 2015, the EPA promulgated a revision to the ozone NAAQS (2015 8-hour ozone NAAQS), lowering the level of both the primary and secondary standards to 0.070 parts per million (ppm).[1] Section 110(a)(1) of the CAA requires states to submit, within 3 years after promulgation of a new or revised NAAQS, SIP submissions meeting the applicable requirements of section 110(a)(2).[2] One of these applicable requirements is found in CAA section 110(a)(2)(D)(i)(I), otherwise known as the ''interstate transport'' or ''good neighbor'' provision, which generally requires SIPs to contain adequate provisions to prohibit in-state emissions activities from having certain adverse air quality effects on other states due to interstate transport of pollution. There are two so-called ''prongs'' within CAA section 110(a)(2)(D)(i)(I). A SIP for a new or revised NAAQS must contain adequate provisions prohibiting any source or other type of emissions activity within the state from emitting air pollutants in amounts that will significantly contribute to nonattainment of the NAAQS in another state (prong 1) or interfere with maintenance of the NAAQS in another state (prong 2). The EPA and states must give independent significance to prong 1 and prong 2 when evaluating downwind air quality problems under CAA section 110(a)(2)(D)(i)(I).[3]

[1] National Ambient Air Quality Standards for Ozone, Final Rule, 80 FR 65292 (October 26, 2015). Although the level of the standard is specified in the units of ppm, ozone concentrations are also described in parts per billion (ppb). For example, 0.070 ppm is equivalent to 70 ppb.

[2] SIP revisions that are intended to meet the applicable requirements of section 110(a)(1) and (2) of the CAA are often referred to as infrastructure SIPs and the applicable elements under section 110(a)(2) are referred to as infrastructure requirements.

[3] *See North Carolina* v. *EPA,* 531 F.3d 896, 909–11 (D.C. Cir. 2008).

B. Description of the EPA's Four-Step Interstate Transport Regulatory Process

The EPA is using the 4-step interstate transport framework (or 4-step framework) to evaluate all of the states' SIP submittals addressing the interstate transport provision for the 2015 8-hour ozone NAAQS. The EPA has addressed the interstate transport requirements of CAA section 110(a)(2)(D)(i)(I) with respect to prior ozone NAAQS in several regional regulatory actions, including the Cross-State Air Pollution Rule (CSAPR), which addressed interstate transport with respect to the 1997 ozone NAAQS, as well as the 1997 and 2006 fine particulate matter standards,[4] and the Cross-State Air Pollution Rule Update (CSAPR Update) [5] and the Revised CSAPR Update, both of which addressed the 2008 ozone NAAQS.[6]

Through the development and implementation of the CSAPR rulemakings and prior regional rulemakings pursuant to the interstate transport provision,[7] the EPA, working in partnership with states, developed the following 4-step interstate transport framework to evaluate a state's obligations to eliminate interstate transport emissions under the interstate transport provision for the ozone NAAQS: (1) Identify monitoring sites that are projected to have problems attaining and/or maintaining the NAAQS (*i.e.,* nonattainment and/or maintenance receptors); (2) identify states that impact those air quality problems in other (*i.e.,* downwind) states sufficiently such that the states are considered ''linked'' and therefore warrant further review and analysis; (3) identify the emissions reductions necessary (if any), applying a multifactor analysis, to eliminate each linked upwind state's significant contribution to nonattainment or interference with maintenance of the NAAQS at the locations identified in Step 1; and (4) adopt permanent and enforceable measures needed to achieve those emissions reductions.

C. Background on the EPA's Ozone Transport Modeling Information

In general, the EPA has performed nationwide air quality modeling to project ozone design values which are used in combination with measured data to identify nonattainment and maintenance receptors. To quantify the contribution of emissions from specific upwind states on 2023 ozone design values for the identified downwind nonattainment and maintenance receptors, the EPA performed nationwide, state-level ozone source apportionment modeling for 2023. The source apportionment modeling provided contributions to ozone at receptors from precursor emissions of anthropogenic nitrogen oxides (NO_X) and volatile organic compounds (VOCs) in individual upwind states.

The EPA has released several documents containing projected ozone design values, contributions, and information relevant to evaluating interstate transport with respect to the 2015 8-hour ozone NAAQS. First, on January 6, 2017, the EPA published a notice of data availability (NODA) in which the EPA requested comment on preliminary interstate ozone transport data, including projected ozone design values and interstate contributions for 2023 using a 2011 emissions platform.[8] In the NODA, the EPA used the year 2023 as the analytic year for this preliminary modeling because that year aligns with the expected attainment year for Moderate ozone nonattainment areas for the 2015 8-hour ozone NAAQS.[9] On October 27, 2017, the EPA released a memorandum (October 2017 memorandum) containing updated modeling data for 2023, which incorporated changes made in response to comments on the NODA and noted that the modeling may be useful for states developing SIPs to address interstate transport obligations for the 2008 ozone NAAQS.[10] On March 27, 2018, the EPA issued a memorandum (March 2018 memorandum) noting that the same 2023 modeling data released in the October 2017 memorandum could also be useful for identifying potential downwind air quality problems with respect to the 2015 8-hour ozone NAAQS at Step 1 of the 4-step interstate transport framework.[11] The March 2018 memorandum also included the then newly available contribution modeling data for 2023 to assist states in evaluating their impact on potential downwind air quality problems for the 2015 8-hour ozone NAAQS under Step 2 of the 4-step interstate transport framework.[12] The EPA subsequently issued two more memoranda in August and October 2018, providing additional information to states developing interstate transport SIP submissions for the 2015 8-hour ozone NAAQS concerning, respectively, potential contribution thresholds that may be appropriate to apply in Step 2 of the 4-step interstate transport framework, and considerations for identifying downwind areas that may have problems maintaining the standard at Step 1 of the 4-step interstate transport framework.[13]

Since the release of the modeling data shared in the March 2018 memorandum, the EPA performed updated modeling using a 2016 emissions platform (*i.e.,* 2016v1). This emissions platform was developed under the EPA/Multi-Jurisdictional Organization (MJO)/state collaborative project.[14] This collaborative project was a multi-year joint effort by the EPA, MJOs, and states to develop a new, more

[4] *See* Federal Implementation Plans: Interstate Transport of Fine Particulate Matter and Ozone and Correction of SIP Approvals, 76 FR 48208 (August 8, 2011).

[5] Cross-State Air Pollution Rule Update for the 2008 Ozone NAAQS, 81 FR 74504 (October 26, 2016).

[6] In 2019, the D.C. Circuit Court of Appeals remanded the CSAPR Update to the extent it failed to require upwind states to eliminate their significant contribution by the next applicable attainment date by which downwind states must come into compliance with the NAAQS, as established under CAA section 181(a). *Wisconsin* v. *EPA,* 938 F.3d 303, 313 (D.C. Cir. 2019). The Revised CSAPR Update for the 2008 Ozone NAAQS, 86 FR 23054 (April 30, 2021), responded to the remand of the CSAPR Update in *Wisconsin* and the vacatur of a separate rule, the ''CSAPR Close-Out,'' 83 FR 65878 (December 21, 2018), in *New York* v. *EPA,* 781 F. App'x. 4 (D.C. Cir. 2019).

[7] In addition to the CSAPR rulemakings, other regional rulemakings addressing ozone transport include the ''NO_X SIP Call,'' 63 FR 57356 (October 27, 1998), and the ''Clean Air Interstate Rule'' (CAIR), 70 FR 25162 (May 12, 2005).

[8] *See* Notice of Availability of the Environmental Protection Agency's Preliminary Interstate Ozone Transport Modeling Data for the 2015 8-hour Ozone National Ambient Air Quality Standard (NAAQS), 82 FR 1733 (January 6, 2017).

[9] *See* 82 FR 1733, 1735 (January 6, 2017).

[10] *See* Information on the Interstate Transport State Implementation Plan Submissions for the 2008 Ozone National Ambient Air Quality Standards under Clean Air Act Section 110(a)(2)(D)(i)(I), October 27, 2017, available in docket ID No. EPA–HQ–OAR–2021–0663.

[11] *See* Information on the Interstate Transport State Implementation Plan Submissions for the 2015 Ozone National Ambient Air Quality Standards under Clean Air Act Section 110(a)(2)(D)(i)(I), March 27, 2018 (March 2018 memorandum), available in docket ID No. EPA–HQ–OAR–2021–0663.

[12] The March 2018 memorandum, however, provided, ''While the information in this memorandum and the associated air quality analysis data could be used to inform the development of these SIPs, the information is not a final determination regarding states' obligations under the good neighbor provision. Any such determination would be made through notice-and-comment rulemaking.''

[13] *See* Analysis of Contribution Thresholds for Use in Clean Air Act Section 110(a)(2)(D)(i)(I) Interstate Transport State Implementation Plan Submissions for the 2015 Ozone National Ambient Air Quality Standards, August 31, 2018 (August 2018 memorandum), and Considerations for Identifying Maintenance Receptors for Use in Clean Air Act Section 110(a)(2)(D)(i)(I) Interstate Transport State Implementation Plan Submissions for the 2015 Ozone National Ambient Air Quality Standards, October 19, 2018, available in docket ID No. EPA–HQ–OAR–2021–0663.

[14] The results of this modeling, as well as the underlying modeling files, are included in docket ID No. EPA–HQ–OAR–2021–0663.

recent emissions platform for use by the EPA and states in regulatory modeling as an improvement over the dated 2011 emissions platform to project ozone design values and contributions for 2023. On October 30, 2020, in the Notice of Proposed Rulemaking for the Revised CSAPR Update, the EPA released and accepted public comment on 2023 modeling that used the 2016v1 emissions platform.[15] Although the Revised CSPAR Update addressed transport for the 2008 ozone NAAQS, the projected design values and contributions from the 2016v1 emissions platform are also useful for identifying downwind ozone problems and linkages with respect to the 2015 8-hour ozone NAAQS.[16]

Following the final Revised CSAPR Update, the EPA made further updates to the 2016v1 emissions platform to include mobile emissions from the EPA's Motor Vehicle Emission Simulator MOVES3 model [17] and updated emissions projections for electric generating units (EGUs) that reflect the emissions reductions from the Revised CSAPR Update, recent information on plant closures, and other sector trends. The construct of the updated emissions platform, 2016v2 (2016v2 emissions platform), is described in the Emissions Modeling technical support document (TSD) for this proposed rulemaking.[18] The EPA performed air quality modeling of the 2016v2 emissions platform using the most recent public release version of the Comprehensive Air-quality Model with extensions (CAMx) photochemical modeling, version 7.10 [19] in evaluating these submissions with respect to Steps 1 and 2 of the 4-step interstate transport framework and generally referenced within this action as 2016v2 modeling for 2023. By using the updated modeling results, the EPA is using the most recent available and technically appropriate information for this proposed rulemaking. Section III of this document and the Air Quality Modeling TSD for the 2015 8-hour Ozone NAAQS Transport SIP Proposed Actions, included in Docket ID No. EPA–HQ–OAR–2021–0663 for this proposal, contain additional detail on the EPA's 2016v2 modeling. In this document, the EPA is accepting public comment on this updated 2023 modeling, which uses the 2016v2 emissions platform. Comments on the EPA's air quality modeling should only be submitted in the Regional docket for this action, docket ID No. EPA–R03–OAR–2021–0872. No comments on any topic are being accepted in docket ID No. EPA–HQ–OAR–2021–0663.

States may have chosen to rely on the results of the EPA modeling and/or alternative modeling performed by states or MJOs to evaluate downwind air quality problems and contributions as part of their submissions. In Section III of this document, the EPA evaluates how Maryland used air quality modeling information in their submission.

D. The EPA's Approach To Evaluating Interstate Transport SIPs for the 2015 8-Hour Ozone NAAQS

The EPA proposes to apply a consistent set of policy judgments across all states for purposes of evaluating interstate transport obligations and the approvability of interstate transport SIP submittals for the 2015 8-hour ozone NAAQS. These policy judgments reflect consistency with relevant case law and past agency practice as reflected in the CSAPR and related rulemakings. Nationwide consistency in approach is particularly important in the context of interstate ozone transport, which is a regional-scale pollution problem involving many smaller contributors. Effective policy solutions to the problem of interstate ozone transport going back to the NO_X SIP Call have necessitated the application of a uniform framework of policy judgments in order to ensure an ''efficient and equitable'' approach. *See EME Homer City Generation, LP* v. *EPA,* 572 U.S. 489, 519 (2014).

In the March, August, and October 2018 memoranda, the EPA recognized that states may be able to establish alternative approaches to addressing their interstate transport obligations for the 2015 8-hour ozone NAAQS that vary from a nationally uniform framework. The EPA emphasized in these memoranda, however, that such alternative approaches must be technically justified and appropriate in light of the facts and circumstances of each particular state's submittal. In general, the EPA continues to believe that deviation from a nationally consistent approach to ozone transport must be substantially justified and have a well-documented technical basis that is consistent with relevant case law. Where states submitted SIPs that rely on any such potential ''flexibilities'' as may have been identified or suggested in the past, the EPA will evaluate whether the state adequately justified the technical and legal basis for doing so. The EPA's proposed framework with respect to analytic year, definition of nonattainment and maintenance receptors, selection of contribution threshold, and multifactor control strategy assessment is described in this section.

The EPA notes that certain concepts included in an attachment to the March 2018 memorandum require unique consideration, and these ideas do not constitute agency guidance with respect to transport obligations for the 2015 8-hour ozone NAAQS. Attachment A to the March 2018 memorandum identified a ''Preliminary List of Potential Flexibilities'' that could potentially inform SIP development.[20] However, the EPA made clear in Attachment A that the list of ideas were not suggestions endorsed by the Agency but rather ''comments provided in various forums'' on which the EPA sought ''feedback from interested stakeholders.'' [21] Further, Attachment A stated, ''EPA is not at this time making any determination that the ideas discussed below are consistent with the requirements of the CAA, nor is the EPA specifically recommending that states use these approaches.'' [22] Attachment A to the March 2018 memorandum, therefore, does not constitute agency guidance, but was intended to generate further discussion around potential approaches to addressing ozone transport among interested stakeholders. To the extent states sought to develop or rely on these ideas in support of their SIP submittals, the EPA will thoroughly review the technical and legal justifications for doing so.

The remainder of this section describes the EPA's proposed framework with respect to analytic year, definition of nonattainment and maintenance receptors, selection of contribution threshold, and multifactor control strategy assessment.

1. Selection of Analytic Year

In general, the states and the EPA must implement the interstate transport provision in a manner ''consistent with the provisions of [title I of the CAA.]'' CAA section 110(a)(2)(D)(i). This requires, among other things, that these

[15] *See* 85 FR 68964, 68981.

[16] *See* the Air Quality Modeling Technical Support Document for the Final Revised Cross-State Air Pollution Rule Update, included in the Headquarters docket ID No. EPA–HQ–OAR–2021–0663.

[17] Additional details and documentation related to the MOVES3 model can be found at *https://www.epa.gov/moves/latest-version-motor-vehicle-emission-simulator-moves.*

[18] *See* Technical Support Document (TSD) Preparation of Emissions Inventories for the 2016v2 North American Emissions Modeling Platform included in the Headquarters docket ID No. EPA–HQ–OAR–2021–0663.

[19] Ramboll Environment and Health, January 2021, *www.camx.com.*

[20] March 2018 memorandum, Attachment A.

[21] *Id.* at A–1.

[22] *Id.*

obligations are addressed consistently with the timeframes for downwind areas to meet their CAA obligations. With respect to ozone NAAQS, under CAA section 181(a), this means obligations must be addressed ''as expeditiously as practicable'' and no later than the schedule of attainment dates provided in CAA section 181(a)(1).[23] Several D.C. Circuit court decisions address the issue of the relevant analytic year for the purposes of evaluating ozone transport air-quality problems. On September 13, 2019, the D.C. Circuit issued a decision in *Wisconsin* v. *EPA,* remanding the CSAPR Update to the extent that it failed to require upwind states to eliminate their significant contribution by the next applicable attainment date by which downwind states must come into compliance with the NAAQS, as established under CAA section 181(a). 938 F.3d 303 at 313.

On May 19, 2020, the D.C. Circuit issued a decision in *Maryland* v. *EPA* that cited the *Wisconsin* decision in holding that the EPA must assess the impact of interstate transport on air quality at the next downwind attainment date, including Marginal area attainment dates, in evaluating the basis for the EPA's denial of a petition under CAA section 126(b). *Maryland* v. *EPA,* 958 F.3d 1185, 1203–04 (D.C. Cir. 2020). The court noted that ''section 126(b) incorporates the Good Neighbor Provision,'' and, therefore, ''EPA must find a violation [of section 126] if an upwind source will significantly contribute to downwind nonattainment at the *next downwind attainment deadline.* Therefore, the agency must evaluate downwind air quality at that deadline, not at some later date.'' *Id.* at 1204 (emphasis added). The EPA interprets the court's holding in *Maryland* as requiring the states and the Agency, under the good neighbor provision, to assess downwind air quality as expeditiously as practicable and no later than the next applicable attainment date,[24] which is now the Moderate area attainment date under CAA section 181 for ozone nonattainment. The Moderate area attainment date for the 2015 8-hour ozone NAAQS is August 3, 2024.[25] The EPA believes that 2023 is now the appropriate year for analysis of interstate transport obligations for the 2015 8-hour ozone NAAQS, because the 2023 ozone season is the last relevant ozone season during which achieved emissions reductions in linked upwind states could assist downwind states with meeting the August 3, 2024 Moderate area attainment date for the 2015 8-hour ozone NAAQS.

The EPA recognizes that the attainment date for nonattainment areas classified as Marginal for the 2015 8-hour ozone NAAQS was August 3, 2021. Under the *Maryland* holding, any necessary emissions reductions to satisfy interstate transport obligations should have been implemented by no later than this date. At the time of the statutory deadline to submit interstate transport SIPs (October 1, 2018), many states relied upon the EPA modeling of the year 2023, and no state provided an alternative analysis using a 2021 analytic year (or the prior 2020 ozone season). However, the EPA must act on SIP submittals using the information available at the time it takes such action. In this circumstance, the EPA does not believe it would be appropriate to evaluate states' obligations under CAA section 110(a)(2)(D)(i)(I) as of an attainment date that is wholly in the past, because the Agency interprets the interstate transport provision as forward looking. *See* 86 FR at 23074; *see also Wisconsin,* 938 F.3d at 322. Consequently, in this proposal the EPA will use the analytical year of 2023 to evaluate each state's CAA section 110(a)(2)(D)(i)(I) SIP submission with respect to the 2015 8-hour ozone NAAQS.

2. Step 1 of the 4-Step Interstate Transport Framework

In Step 1, the EPA identifies monitoring sites that are projected to have problems attaining and/or maintaining the NAAQS in the 2023 analytic year. Where the EPA's analysis shows that a site does not fall under the definition of a nonattainment or maintenance receptor, that site is excluded from further analysis under the EPA's 4-step interstate transport framework. For sites that are identified as a nonattainment or maintenance receptor in 2023, the EPA proceeds to the next step of our 4-step interstate transport framework by identifying the upwind state's contribution to those receptors.

The EPA's approach to identifying ozone nonattainment and maintenance receptors in this action is consistent with the approach used in previous transport rulemakings. The EPA's approach gives independent consideration to both the ''contribute significantly to nonattainment'' and the ''interfere with maintenance'' prongs of CAA section 110(a)(2)(D)(i)(I), consistent with the D.C. Circuit's direction in *North Carolina* v. *EPA.*[26]

For the purpose of this proposal, the EPA identifies nonattainment receptors as those monitoring sites that are projected to have average design values that exceed the NAAQS and that are also measuring nonattainment based on the most recent monitored design values. This approach is consistent with prior transport rulemakings, such as the CSAPR Update, where the EPA defined nonattainment receptors as those areas that both currently measure nonattainment and that the EPA projects will be in nonattainment in the future analytic year (*i.e.,* 2023).[27]

In addition, in this proposal, the EPA identifies a receptor to be a ''maintenance'' receptor for purposes of defining interference with maintenance, consistent with the method used in the CSAPR and upheld by the D.C. Circuit in *EME Homer City Generation, L.P.* v. *EPA,* 795 F.3d 118, 136 (D.C. Cir. 2015).[28] Specifically, the EPA identified maintenance receptors as those receptors that would have difficulty maintaining the relevant NAAQS in a scenario that takes into account historical variability in air quality at that receptor. The variability in air quality was determined by evaluating the ''maximum'' future design value at each receptor based on a projection of the maximum measured design value over the relevant period. The EPA interprets the projected maximum future design value to be a potential future air quality outcome consistent

[23] For attainment dates for the 2015 8-hour ozone NAAQS, refer to CAA section 181(a), 40 CFR 51.1303, and Additional Air Quality Designations for the 2015 Ozone National Ambient Air Quality Standards, 83 FR 25776 (June 4, 2018, effective August 3, 2018).

[24] The EPA notes that the court in *Maryland* did not have occasion to evaluate circumstances in which the EPA may determine that an upwind linkage to a downwind air quality problem exists at Steps 1 and 2 of the interstate transport framework by a particular attainment date, but for reasons of impossibility or profound uncertainty the Agency is unable to mandate upwind pollution controls by that date. *See Wisconsin,* 938 F.3d at 320. The D.C. Circuit noted in *Wisconsin* that upon a sufficient showing, these circumstances may warrant flexibility in effectuating the purpose of the interstate transport provision.

[25] *See* CAA section 181(a); 40 CFR 51.1303; Additional Air Quality Designations for the 2015 Ozone National Ambient Air Quality Standards, 83 FR 25776 (June 4, 2018, effective August 3, 2018).

[26] *See North Carolina* v. *EPA,* 531 F.3d at 910–11 (holding that the EPA must give ''independent significance'' to each prong of CAA section 110(a)(2)(D)(i)(I)).

[27] *See* 81 FR 74504 (October 26, 2016). This same concept, relying on both current monitoring data and modeling to define nonattainment receptor, was also applied in CAIR. *See* 70 FR at 25241, 25249 (January 14, 2005); *see also North Carolina,* 531 F.3d at 913–14 (affirming as reasonable the EPA's approach to defining nonattainment in CAIR).

[28] *See* 76 FR 48208 (August 8, 2011). CSAPR Update and Revised CSAPR Update also used this approach. *See* 81 FR 74504 (October 26, 2016) and 86 FR 23054 (April 30, 2021).

with the meteorology that yielded maximum measured concentrations in the ambient data set analyzed for that receptor (*i.e.,* ozone conducive meteorology). The EPA also recognizes that previously experienced meteorological conditions (*e.g.,* dominant wind direction, temperatures, air mass patterns) promoting ozone formation that led to maximum concentrations in the measured data may reoccur in the future. The maximum design value gives a reasonable projection of future air quality at the receptor under a scenario in which such conditions do, in fact, reoccur. The projected maximum design value is used to identify upwind emissions that, under those circumstances, could interfere with the downwind area's ability to maintain the NAAQS.

Recognizing that nonattainment receptors are also, by definition, maintenance receptors, the EPA often uses the term ''maintenance-only'' to refer to those receptors that are not nonattainment receptors. Consistent with the concepts for maintenance receptors, as described above, the EPA identifies ''maintenance-only'' receptors as those monitoring sites that have projected average design values above the level of the applicable NAAQS, but that are not currently measuring nonattainment based on the most recent official design values. In addition, those monitoring sites with projected average design values below the NAAQS, but with projected maximum design values above the NAAQS are also identified as ''maintenance only'' receptors, even if they are currently measuring nonattainment based on the most recent official design values.

3. Step 2 of the 4-Step Interstate Transport Framework

In Step 2, the EPA quantifies the contribution of each upwind state to each receptor in the 2023 analytic year. The contribution metric used in Step 2 is defined as the average impact from each state to each receptor on the days with the highest ozone concentrations at the receptor based on the 2023 modeling. If a state's contribution value does not equal or exceed the threshold of 1 percent of the NAAQS (*i.e.,* 0.70 parts per billion (ppb) for the 2015 8-hour ozone NAAQS), the upwind state is not ''linked'' to a downwind air quality problem, and the EPA, therefore, concludes that the state does not significantly contribute to nonattainment or interfere with maintenance of the NAAQS in the downwind states. However, if a state's contribution equals or exceeds the 1 percent threshold, the state's emissions are further evaluated in Step 3, considering both air quality and cost as part of a multi-factor analysis, to determine what, if any, emissions might be deemed ''significant'' and, thus, must be eliminated under CAA section 110(a)(2)(D)(i)(I). The EPA is proposing to rely in the first instance on the 1 percent threshold for the purpose of evaluating a state's contribution to nonattainment or maintenance of the 2015 8-hour ozone NAAQS (*i.e.,* 0.70 ppb) at downwind receptors. This is consistent with the Step 2 approach that the EPA applied in CSAPR for the 1997 ozone NAAQS, which has subsequently been applied in the CSAPR Update when evaluating interstate transport obligations for the 2008 ozone NAAQS. The EPA continues to find 1 percent to be an appropriate threshold. For ozone, as the EPA found in the Clean Air Interstate Rule (CAIR), CSAPR, and CSAPR Update, a portion of the nonattainment problems from anthropogenic sources in the U.S. result from the combined impact of contributions from many upwind states, along with contributions from in-state sources and, in some cases, substantially larger contributions from a subset of particular upwind states. The EPA's analysis shows that much of the ozone transport problem being analyzed in this proposed rulemaking is still the result of the collective impacts of contributions from many upwind states. Therefore, application of a consistent contribution threshold is necessary to identify those upwind states that should have responsibility for addressing their contribution to the downwind nonattainment and maintenance problems to which they collectively contribute. Continuing to use 1 percent of the NAAQS as the screening metric to evaluate collective contribution from many upwind states also allows the EPA (and states) to apply a consistent framework to evaluate interstate emissions transport under the interstate transport provision from one NAAQS to the next. *See* 81 FR at 74518. *See also* 86 FR at 23085 (reviewing and explaining rationale from CSAPR, 76 FR at 48237–38, for selection of 1 percent threshold).

The EPA's August 2018 memorandum recognized that in certain circumstances, a state may be able to establish that an alternative contribution threshold of 1 ppb is justifiable. Where a state relies on this alternative threshold, and where that state determined that it was not linked at Step 2 using the alternative threshold, the EPA will evaluate whether the state provided a technically sound assessment of the appropriateness of using this alternative threshold based on the facts and circumstances underlying its application in the particular SIP submission.

4. Step 3 of the 4-Step Interstate Transport Framework

Consistent with the EPA's longstanding approach to eliminating significant contribution or interference with maintenance, at Step 3, states linked at Steps 1 and 2 are generally expected to prepare a multifactor assessment of potential emissions controls. The EPA's analysis at Step 3 in prior Federal actions addressing interstate transport requirements has primarily focused on an evaluation of cost-effectiveness of potential emissions controls (on a marginal cost-per-ton basis), the total emissions reductions that may be achieved by requiring such controls (if applied across all linked upwind states), and an evaluation of the air quality impacts such emissions reductions would have on the downwind receptors to which a state is linked; other factors may potentially be relevant if adequately supported. In general, where the EPA's or alternative air quality and contribution modeling establishes that a state is linked at Steps 1 and 2, it will be insufficient at Step 3 for a state merely to point to its existing rules requiring control measures as a basis for approval. In general, the emissions-reducing effects of all existing emissions control requirements are already reflected in the air quality results of the modeling for Steps 1 and 2. If the state is shown to still be linked to one or more downwind receptor(s), states must provide a well-documented evaluation determining whether their emissions constitute significant contribution or interference with maintenance by evaluating additional available control opportunities by preparing a multifactor assessment. While the EPA has not prescribed a particular method for this assessment, the EPA expects states at a minimum to present a sufficient technical evaluation. This would typically include information on emissions sources, applicable control technologies, emissions reductions, costs, cost effectiveness, and downwind air quality impacts of the estimated reductions, before concluding that no additional emissions controls should be required.[29]

[29] As examples of general approaches for how such an analysis could be conducted for their sources, states could look to the CSAPR Update, 81 FR 74504, 74539–51 (October 26, 2016); CSAPR, 76

5. Step 4 of the 4-Step Interstate Transport Framework

At Step 4, states (or the EPA) develop permanent and federally enforceable control strategies to achieve the emissions reductions determined to be necessary at Step 3 to eliminate significant contribution to nonattainment or interference with maintenance of the NAAQS. For a state linked at Steps 1 and 2 to rely on an emissions control measure at Step 3 to address its interstate transport obligations, that measure must be included in the state's SIP so that it is permanent and federally enforceable. *See* CAA section 110(a)(2)(D) (''Each such [SIP] shall . . . contain adequate provisions . . .''). *See also* CAA 110(a)(2)(A); *Committee for a Better Arvin* v. *U.S. E.P.A.,* 786 F.3d 1169, 1175–76 (9th Cir. 2015) (holding that measures relied on by state to meet CAA requirements must be included in the SIP).

II. Maryland's SIP Submission Addressing Interstate Transport of Air Pollution for the 2015 8-Hour Ozone NAAQS

On October 11, 2018, the Maryland Department of the Environment (MDE), on behalf of the State of Maryland, made a SIP submission to address most of the 2015 8-hour ozone NAAQS i-SIP requirements under CAA section 110(a)(2), except for the CAA section 110(a)(2)(D)(i)(I) (the ''Good Neighbor'' or ''interstate transport'') requirements, which Maryland proposed to address in a separate SIP submittal. The EPA published a final approval of this SIP submission on September 18, 2019, 84 FR 49062. On October 16, 2019, MDE then submitted a separate, supplemental SIP revision addressing only the CAA section 110(a)(2)(D)(i)(I) interstate transport requirements for the 2015 8-hour ozone NAAQS (the 2019 SIP).[30] Maryland's 2019 SIP submittal provided an analysis of ozone monitoring data and emission trends, as well as a list of already-enacted Federal and State air pollution control measures, before concluding that Maryland satisfied its section 110(a)(2)(D)(i)(I) Good Neighbor obligations for purposes of the 2015 8-hour ozone NAAQS.

Maryland's SIP submittal roughly followed the 4-step interstate transport framework recommended by the EPA. For Steps 1 and 2, Maryland relied on the EPA's modeling in the March 2018 memorandum to demonstrate that it complies with the requirements of CAA section 110(a)(2)(D)(i)(I) for the 2015 8-hour ozone NAAQS. As part of Step 1, Maryland's SIP submittal identified the downwind nonattainment and maintenance receptors for which the EPA's modeling projected impacts from Maryland emissions, and thus linkage in 2023. The State examined historical ozone design values based on past monitoring data from 2015 to 2018 at key linked monitors to evaluate the likelihood of future compliance with the NAAQS at those locations. As part of Step 2, Maryland's SIP submission specified that even though the EPA's August 31, 2018 [31] memorandum concluded that it may be reasonable and appropriate for states to use a 1 ppb contribution threshold, as an alternative to a 1-percent threshold, Maryland chose to use the one-percent threshold as it captured a greater contribution from upwind states.

In the 2019 SIP submittal, Maryland also asserted that it does not agree with the results of the EPA's 2023 projection modeling outlined in the March 2018 memorandum, because in their opinion the air quality modeling accompanying the March 2018 memorandum was ''based on flawed, unenforceable inventory assumptions and modeling methodology'' that resulted in lower projected 2023 design values and state contributions that differ from the expected reality.[32] Maryland further explained that even though that was the most current modeling available at the time, states should not solely rely on it to fulfill their interstate transport obligations, and for that reason, the State identified four items that, in its opinion, need to be included in a SIP submission to address section 110(a)(2)(D)(i)(I) for the EPA to approve it. These four items include the following: (i) Completion of the entire 4-step interstate transport framework; (ii) requiring optimization of post-combustion controls at EGUs as a cost-effective strategy for NOx reduction; (iii) requiring that reductions included in the modeling for interstate transport SIP submittals be permanent, enforceable and implemented as expeditiously as possible; and (iv) requiring that the optimization of post-combustion controls at EGUs happen on a daily basis, consistent with the way peak days are used to demonstrate attainment with the standards using measured ozone data. Even though Maryland did not agree with the results of the EPA's March 2018 memorandum modeling on the basis that it contains unenforceable control measures, the State did use that modeling analysis to fulfill Step 2 of the 4-step interstate transport framework.

For Step 3 of the 4-step interstate transport framework, Maryland's SIP submittal highlighted the EPA's CSAPR Update rule. In particular, the State focused on the determination of the necessary level of NO_X emission control and the state budgets for NO_X emissions for EGUs, corresponding to emission levels after accounting for operation of existing pollution controls, emission reductions available at a certain cost threshold, and any additional reductions required to address interstate ozone transport. Maryland acknowledged that the CSAPR Update rule aids in the reduction of interstate transport through the implementation of NO_X emissions limits for EGUs in 22 eastern states, including Maryland, during the ozone season.

Lastly, with regard to Step 4 of the 4-step interstate transport framework, the State's SIP submittal described why it believed that Maryland's NO_X Rule met and exceeded the CSAPR Update requirements. Maryland claims that Maryland's NO_X Rule controls EGU NO_X emissions at levels more stringent than required by the CSAPR Update rule. The submittal notes that Maryland has implemented its NO_X Rule in two phases, with Phase 1 satisfying the CSAPR Update requirements, while Phase 2, which took effect in 2020, could be considered as additional emission reductions eliminating Maryland's significant contributions to downwind states. As part of Step 4, Maryland's submittal also provided a list of state regulations and voluntary control measures for a variety of other source categories for both NO_X and VOC emissions that the State has adopted to demonstrate how Maryland complies and will continue to comply with the good neighbor provisions of the 2015 8-hour ozone NAAQS.

III. EPA Evaluation

The EPA is proposing to find that Maryland's October 16, 2019 SIP submission does not meet the state's obligations with respect to prohibiting

FR 48208, 48246–63 (August 8, 2011); CAIR, 70 FR 25162, 25195–229 (May 12, 2005); or the NO_X SIP Call, 63 FR 57356, 57399–405 (October 27, 1998). *See also* Revised CSAPR Update, 86 FR 23054, 23086–23116 (April 30, 2021). Consistently across these rulemakings, the EPA has developed emissions inventories, analyzed different levels of control stringency at different cost thresholds, and assessed resulting downwind air quality improvements.

[30] *See* the October 16, 2019 SIP submittal included in docket ID No. EPA–R03–OAR–2021–0872.

[31] Analysis of Contribution Thresholds Memo, August 2018, *https://www.epa.gov/sites/production/files/2018-09/documents/contrib_thresholds_transport_sip_subm_2015_ozone_memo_08_31_18.pdf.*

[32] *See* the October 16, 2019 SIP submittal at 2 included in docket ID No. EPA–R03–OAR–2021–0872.

emissions that contribute significantly to nonattainment or interfere with maintenance of the 2015 8-hour ozone NAAQS in any other state, and the EPA is therefore proposing to disapprove Maryland's SIP submission. This proposed disapproval is based on newer, updated modeling performed by the EPA which was not available when Maryland submitted its supplemental SIP, and the EPA's evaluation of the SIP submission using the 4-step interstate transport framework.

A. Maryland

1. Evaluation of Information Provided by Maryland Regarding Steps 1 and 2

As noted in Section II of this document, at Steps 1 and 2 of the 4-step interstate transport framework, Maryland used the EPA modeling released in the March 2018 memorandum [33] to identify nonattainment and maintenance receptors in 2023 and to determine whether the State was linked to any of these receptors in 2023. The March 2018 memorandum modeling was the latest modeling available when Maryland submitted its SIP revision in October 2019. As described previously in this document, the EPA has since released air quality modeling using the most recent available and technically appropriate emissions data (*i.e.,* 2016v2 emissions platform). Therefore, the EPA proposes to primarily rely on the EPA's most recent modeling to identify nonattainment and maintenance receptors and identify upwind state linkages to these receptors 2023.

In Maryland's 2019 SIP submission, the State used the modeling in the EPA's March 2018 memorandum to identify six downwind monitors to which Maryland sources contributed to nonattainment or interfered with maintenance. The EPA's air quality modeling for 2023 using the 2016v2 emissions platform shows nonattainment or interference at five of the same six monitors, as shown in Table 1 of this document in the following subsection, although in slightly differing amounts. As noted in Section II of this document, Maryland objected to the modeling attached to the March 2018 memorandum by claiming that it relied on outdated information and flawed inventory assumptions that would tend to lessen downwind contributions from upwind sources. The EPA's air quality modeling using the 2016v2 emissions platform would presumably address some of Maryland's concerns regarding the March 2018 memorandum modeling. As stated in Section I of this document, the EPA is accepting comment on this more recent modeling data used to support this action. Regardless, both sets of modeling show that Maryland is linked to nonattainment or interfering with maintenance at downwind out-of-state monitors, and the State did not provide any alternative modeling analysis that showed an alternative set of nonattainment or maintenance receptors in 2023, nor did Maryland provide an alternative analysis to demonstrate that they were not linked to nonattainment or interfering with maintenance at downwind monitors. Therefore, both the EPA and Maryland agree that Maryland's sources are contributing to nonattainment or interfering with maintenance at downwind monitors.

2. Results of the EPA's Step 1 and Step 2 Modeling and Findings for Maryland

As described in Section I of this document, the EPA performed air quality modeling using the 2016v2 emissions platform to project design values and contributions for 2023. The EPA examined these data to determine if emissions from Maryland sources contribute at or above the threshold of 1 percent of the 2015 8-hour ozone NAAQS (0.70 ppb) to any downwind nonattainment or maintenance receptor. As shown in Table 1 of this document, the data [34] indicate that in 2023, emissions from Maryland contribute greater than 1 percent of the NAAQS to nonattainment or maintenance-only receptors in Fairfield County and New Haven County, Connecticut; and in Queens County and Suffolk County, New York.[35]

Therefore, based on the EPA's evaluation of the information submitted by Maryland, and based on the EPA's most recent modeling results for 2023, the EPA proposes to find that Maryland is linked at Steps 1 and 2 and has an obligation to assess potential emissions reductions from sources or other emissions activity at Step 3 of the 4-step framework.

TABLE 1—MARYLAND LINKAGE RESULTS BASED ON EPA'S UPDATED 2016V2-BASED MODELING

Receptor ID	Location	Nonattainment/maintenance	2023 average design value (ppb)	2023 maximum design value (ppb)	Maryland contribution (ppb)
090013007	Fairfield County—Stratford, CT	Nonattainment	74.3	75.2	1.18
090019003	Fairfield County—Westfield, CT	Nonattainment	76.9	77.2	1.18
090010017	Fairfield County—Greenwich, CT	Maintenance	73.4	74.0	0.67
090099002	New Haven—Madison, CT	Maintenance	71.7	73.8	1.51
360810124	Queens County, NY	Maintenance	66.2	67.8	1.10
361030002	Suffolk County—Babylon, NY	Nonattainment	67.0	68.8	1.12

3. Evaluation of Information Provided Regarding Step 3

At Step 3 of the 4-step interstate transport framework, a state's emissions are further evaluated, in light of multiple factors, including air quality and cost considerations, to determine what, if any, emissions significantly contribute to nonattainment or interfere with maintenance and, thus, must be eliminated under CAA section 110(a)(2)(D)(i)(I).

[33] Page 2 of Maryland's 2019 SIP submission notes that Maryland does not agree with the 2023 modeling assessment included with the March 2018 memorandum because it is ''based on flawed, unenforceable inventory assumptions and modeling assumptions'' that result in lower projected 2023 design values and state contributions that differ from reality. However, Maryland does not elaborate further on these ''flaws,'' nor does Maryland explain how or why these flaws, if corrected, would either change the status of any receptor or show that Maryland is not linked to any downwind nonattainment or maintenance receptors.

[34] Design values and contributions at individual monitoring sites nationwide are provide in the file: 2016v2_DVs_state_contributions.xlsx which is included in docket ID No. EPA–HQ–OAR–2021–0663.

[35] These modeling results are consistent with the results of a prior round of 2023 modeling using the 2016v1 emissions platform which became available to the public in the fall of 2020 in the Revised CSAPR Update, as noted in Section I of this document. That modeling showed that Maryland had a maximum contribution greater than 0.70 ppb to at least one nonattainment or maintenance-only receptor in 2023. These modeling results are included in the file ''Ozone Design Values and Contributions Revised CSAPR Update.xlsx'' in docket ID No. EPA–HQ–OAR–2021–0663.

To evaluate effectively which emissions in the state should be deemed ''significant'' and therefore prohibited, states generally should prepare an accounting of sources and other emissions activity for relevant pollutants and assess potential, additional emissions reduction opportunities and resulting downwind air quality improvements. The EPA has consistently applied this general approach (*i.e.,* Step 3 of the 4-step interstate transport framework) when identifying emissions contributions that the Agency has determined to be ''significant'' (or interfere with maintenance) in each of its prior Federal, regional ozone transport rulemakings, and this interpretation of the statute has been upheld by the Supreme Court. *See EME Homer City,* 572 U.S. 489, 519 (2014). While the EPA has not directed states that they must conduct a Step 3 analysis in precisely the manner the EPA has done in its prior regional transport rulemakings, state implementation plans addressing the obligations in CAA section 110(a)(2)(D)(i)(I) must prohibit ''any source or other type of emissions activity within the State'' from emitting air pollutants which will contribute significantly to downwind air quality problems. Thus, states must complete something similar to the EPA's analysis (or an alternative approach to defining ''significance'' that comports with the statute's objectives) to determine whether and to what degree emissions from a state should be ''prohibited'' to eliminate emissions that will ''contribute significantly to nonattainment in, or interfere with maintenance of,'' the NAAQS in any other state. At Step 3 of the 4-step interstate transport framework, Maryland did not include an accounting of all of the NO_X emitting facilities in the state along with an analysis of potential NO_X emissions control technologies, their associated costs, estimated emissions reductions, and downwind air quality improvements.

Maryland's analysis instead focused on the CSAPR Update rule and described how, as of May 2017, that rule has reduced ozone season NO_X emissions from power plants in 22 eastern states, including Maryland. Maryland referenced the EPA's finding in the CSAPR Update that for the updated NO_X ozone season budgets for EGUs, an increased cost threshold of $1,400 per ton of NO_X reduced was appropriate, because it represented the level of maximum marginal NO_X reduction with respect to cost, while not over-controlling upwind states' emissions. Maryland's SIP submittal included a table with the 22 states' updated ozone season NO_X budgets. That table shows that for Maryland, the CSAPR Update NO_X ozone season budget, at the $1,400 per ton threshold, was 3,238 tons.[36]

Maryland's focus on the CSAPR Update (which reflected a stringency at the nominal marginal cost threshold of $1400/ton (2011$) for the 2008 ozone NAAQS) rule to satisfy their obligations for the 2015 8-hour ozone NAAQS is unpersuasive. First, the CSAPR Update did not regulate non-electric generating units (non-EGU), so Maryland's reliance on only the CSAPR Update analysis is incomplete because Maryland did not analyze non-EGU sources. *See Wisconsin,* 938 F.3d at 318–20. Second, relying on the CSAPR Update's (or any other CAA program's) determination of cost-effectiveness without further Step 3 analysis by Maryland is not approvable. Cost-effectiveness must be assessed in the context of the specific CAA program; assessing cost-effectiveness in the context of ozone transport should reflect a more comprehensive evaluation of the nature of the interstate transport problem, the total emissions reductions available at several cost thresholds, and the air quality impacts of the reductions at downwind receptors. While the EPA has not established a benchmark cost-effectiveness value for the 2015 8-hour ozone NAAQS interstate transport obligations, because the 2015 8-hour ozone NAAQS is a more stringent and more protective air quality standard, it is reasonable to expect control measures or strategies to address interstate transport under this NAAQS to reflect higher marginal control costs. As such, the marginal cost threshold of $1,400/ton for the CSAPR Update (which addresses the 2008 ozone NAAQS and is in 2011$) is not an appropriate cost threshold and cannot be approved as a benchmark to use for interstate transport SIP submissions for the 2015 8-hour ozone NAAQS. Furthermore, Maryland did not explain how the ozone season NO_X emission budget for Maryland's EGUs set by the CSAPR Update, which was intended to address ozone transport nonattainment and maintenance issues for the less-stringent 2008 ozone NAAQS, eliminates Maryland's significant contribution to the downwind nonattainment and maintenance receptors to which Maryland is linked for purposes of the more stringent 2015 8-hour ozone NAAQS.

In addition, the updated 2023 EPA modeling using the 2016v2 emissions platform captures all existing CSAPR trading programs in the baseline, and that modeling confirms that these control programs were not sufficient to eliminate Maryland's linkage at Steps 1 and 2 under the 2015 8-hour ozone NAAQS. The State was therefore obligated at Step 3 to assess *additional* control measures using a multifactor analysis.

Finally, relying on a FIP at Step 3 is per se not approvable if the state has not adopted that program into its SIP and instead continues to rely on the FIP. States may not rely on non-SIP measures to meet SIP requirements. *See* CAA section 110(a)(2)(D) (''Each such [SIP] shall . . . contain adequate provisions . . .''). *See also* CAA section 110(a)(2)(A); *Committee for a Better Arvin* v. *U.S. E.P.A.,* 786 F.3d 1169, 1175–76 (9th Cir. 2015) (holding that measures relied on by state to meet CAA requirements must be included in the SIP).

Notwithstanding the above deficiencies, Maryland asserts at Step 3 of its analysis that ''Maryland's NO_X Rule controls EGU NO_X emissions at levels more stringent than what is required by the CSAPR Update and it will achieve the necessary reductions to meet the State's good neighbor obligations under the 2015 8-hour ozone NAAQS.'' [37] Maryland's submittal provided, among other things, a description of the Maryland NO_X Rule to control NO_X emissions from Coal-Fired EGUs, and the following description of the NO_X Rule is taken largely from Maryland's submittal.[38] Maryland's NO_X Rule took effect in May 2015 and contains two phases. Phase I, found at COMAR 26.11.38.3, became effective on May 1, 2015 and required owners and operators of affected EGUs (coal-fired EGUs in Maryland) to comply with several measures meant to optimize their emission controls. These measures included: (i) The submission of a plan for approval by MDE and the EPA demonstrating how the EGU will operate installed pollution control technology and combustion controls during the ozone season to minimize emissions (COMAR 26.11.38.03A(1)); (ii) beginning May 1, 2015, and during the entire ozone season, requiring the owners and operators to operate and optimize the use of all installed pollution and combustion controls

[36] *See* Maryland's October 16, 2019 SIP submittal included in docket ID No. EPA–R03–OAR–2021–0872.

[37] *See* Maryland's October 16, 2019 SIP submittal at 7 included in docket ID No. EPA–R03–OAR–2021–0872.

[38] The Maryland NO_X rule is codified at COMAR 26.11.38 (Control of NO_X Emissions from Coal-Fired Electric Generating Units).

consistent with the technological limitations, manufacturers' specifications, good engineering, maintenance practices, and air pollution control practices to minimize emissions (COMAR 26.11.38.03A(2)); (iii) setting an ozone season system-wide NO_X emission rate of 0.15 pounds per million British units (lbs/MMBtu) as a 30-day rolling average for affected EGUs (COMAR 26.11.38.03B(1)); (iv) exempting EGUs that are the only facility in Maryland directly or indirectly owned, operated, or controlled by the owner, operator, or controller of the facility from the 0.15 lbs/MMBtu system-wide emission rate specified in COMAR 26.11.38.03B(1) (COMAR 26.11.38.03B(3)); and (v) setting a NO_X emission rate for EGUs using fluidized bed combustors of 0.10 lbs/MMBtu as a 24-hour block average on an annual basis while exempting these units from meeting COMAR 26.11.38.03A, B(1) and (2), and (C) (COMAR 26.11.38.03D).[39] Sources subject to Phase I must also continue meeting annual NO_X reductions in COMAR 26.11.27, Maryland's Healthy Air Act. Maryland claims that for owners and operators to meet the limits set by Maryland's NO_X Rule, the sources are required to run their controls ''continuously.''[40]

In addition, Maryland's 2019 SIP Submission contains a table (Table 5)[41] which the State describes as listing ''NO_X indicator rates'' which demonstrate compliance with the optimization requirement in COMAR 26.11.38.03A(1). These rates, found in COMAR 26.11.38.05, are described as ''Required 24-Hour Block Average Unit Level NO_X Emission Rates.'' The rates can vary from unit to unit at each affected source (and at the unit level based on heat input at Brandon Shores Unit 2) and between affected sources. These limits range from 0.07 lbs/MMBtu to 0.34 lbs/MMBtu. The effect of meeting these indicator rates is that ''(2) An affected electric generating unit shall not be required to submit a unit-specific report consistent with § A(3) of this regulation when the unit emits at levels that are at or below the . . .'' rates in the table. COMAR 26.11.38.05A(2). If the affected EGU does not meet its prescribed emission rate, it must submit a report to MDE for that day explaining the circumstances of the exceedance. COMAR 26.11.38.05A(3). As specified in COMAR 26.11.38.05A(4), such exceedance shall not be a violation if it was caused by certain events and was in accordance with the plan submitted under COMAR 26.11.38.03A(1).

Regarding Phase I of Maryland's NO_X Rule, the EPA notes that the Phase I NO_X Rule emission reductions took effect in 2017 and are captured in the EPA's updated 2023 modeling using the 2016v2 emissions platform, but that emissions modeling still shows that Maryland is contributing to nonattainment or interfering with maintenance at downwind receptors in other states. The EPA's latest projections of the baseline EGU emissions uses the version 6—Summer 2021 Reference Case of the Integrated Planning Model (IPM). IPM is a multi-regional, dynamic, and deterministic linear programming model of the U.S. electric power sector. The model provides forecasts of least cost capacity expansion, electricity dispatch, and emission control strategies, while meeting energy demand, environmental, transmission, dispatch, and reliability constraints.

The IPM version 6—Summer 2021 Reference Case incorporated recent updates through the Summer of 2021 to account for updated Federal and State environmental regulations for EGUs. This projected base case accounts for the effects of the finalized Mercury and Air Toxics Standards rule, CSAPR, the CSAPR Update, the Revised CSAPR Update, New Source Review settlements, the final effluent limitation guidelines (ELG) Rule, the coal combustion residual (CCR) Rule, and other on-the-books Federal and State rules (including renewable energy tax credit extensions from the Consolidated Appropriations Act of 2021) through early 2021 impacting SO_2, NO_X, directly emitted particulate matter, CO_2, and power plant operations. It also includes final actions the EPA has taken to implement the Regional Haze Rule and the best available retrofit technology (BART) requirements. Further, the IPM Platform version 6 uses demand projections from the Energy Information Agency's (EIA) annual energy outlook (AEO) 2020.[42]

The IPM version 6—Summer 2021 Reference Case uses the national electric energy data system (NEEDS) v6 database as its source for data on all existing and planned-committed units. Units are removed from the NEEDS inventory only if a high degree of certainty could be assigned to future implementation of the announced future closure or retirement.[43] The available retirement-related information was reviewed for each unit, and the following rules are applied to remove:

(i) Units that are listed as retired in the December 2020 EIA Form 860M;

(ii) Units that have a planned retirement year prior to June 30, 2023 in the December 2020 EIA Form 860M;

(iii) Units that have been cleared by a regional transmission operator (RTO) or independent system operator (ISO) to retire before 2023, or whose RTO/ISO clearance to retire is contingent on actions that can be completed before 2023;

(iv) Units that have committed specifically to retire before 2023 under Federal or state enforcement actions or regulatory requirements; and

(v) Finally, units for which a retirement announcement can be corroborated by other available information. Units required to retire pursuant to enforcement actions or state rules on July 1, 2023 or later are retained in NEEDS v6.

Retirements or closures taking place on or after July 1, 2023 are captured as constraints on those units in the IPM modeling, and the units are retired in future year projections per the terms of the related requirements.

As highlighted in previous rulemakings, the IPM documentation and the EPA's Power Sector Modeling website, the EPA's goal is to explain and document the use of IPM in a transparent and publicly accessible manner, while also providing for concurrent channels for improving the model's assumptions and representation by soliciting constructive feedback to improve the model. This includes making all inputs and assumptions to the model, output files from the model, and IPM feedback form publicly available on the EPA's website.

Phase II[44] of Maryland's NO_X Rule took effect on June 1, 2020 and applies only to owners or operators of EGUs without SCR controls, which consists of seven units at four facilities. These EGUs were required to choose between four options by June 1, 2020. The

[39] COMAR 28.11.38(D) does not specify that CFBs must meet the 0.10 lb/MMBtu 24-hour block average rate on an ''annual basis,'' so EPA has not been able to verify that this rate applies outside of ozone season.

[40] *See* Maryland's October 16, 2019 SIP submittal at 7 included in docket ID No. EPA–R03–OAR–2021–0872.

[41] *Id.* at 8.

[42] Detailed information and documentation of EPA's Base Case, including all the underlying assumptions, data sources, architecture parameters, and IPM comments form can be found on EPA's website at: *https://www.epa.gov/airmarkets/epas-power-sector-modeling-platform-v6-using-ipm-summer-2021-reference-case.*

[43] The ''Capacity Dropped'' and the ''Retired Through 2023'' worksheets in NEEDS lists all units that are removed from the NEEDS v6 inventory—NEEDS v6 Summer 2021 Reference Case. This data can be found on EPA's website at: *https://www.epa.gov/airmarkets/national-electric-energy-data-system-needs-v6.*

[44] Phase II is codified at COMAR 26.11.38.04 (*Additional NO_X Emission Control Requirements*).

options include: (i) Installation and operation of an SCR control system by June 1, 2020 that can meet a NO_X emission rate of 0.09 lbs/MMBtu during the ozone season based on a 30-day rolling average; (ii) permanently retiring the unit; (iii) switching fuel permanently from coal to natural gas and operating the unit on natural gas; or (iv) meeting a system-wide, daily NO_X tonnage cap of 21 tons per day for every day of the ozone season or meeting a system-wide NO_X emission rate of 0.13 lbs/MMBtu as a 24-hour block average. Option 4, if selected by the source, included additional measures requiring a series of greater emission reductions beginning in May 2016, 2018, and 2020.[45] If the owner or operator did not select option 4, then the allowable 30-day system-wide rolling average NO_X emission rate was set at 0.15 lbs/MMBtu during the ozone season. In addition, option 4 included provisions to ensure that the reliability of the electrical system is maintained. There are additional provisions in the NO_X Rule which addressed the options and limits applicable if a unit or units included in a ''system'' as of May 1, 2015 were no longer owned, operated or controlled by the ''system.''

For Phase II, the 2019 SIP Submission notes that Chalk Point, Dickerson and Morgantown generating stations selected option 4, that Brandon Shores and Herbert A. Wagner generating stations chose the optimization requirement in COMAR 26.11.38.03A, and that pursuant to a May 23, 2018 settlement agreement, C.P. Crane agreed to cease, and has ceased, the burning of coal in Units 1 and 2 by no later than June 15, 2018, and that the coal-fired boilers have been disabled. Maryland predicted that the implementation of both the Phase I and II requirements would result in ozone season NO_X emission reductions of 2,507 to 2,627 tons from the base year 2011 emissions. The SIP submission did not specify the amount of reduction that would occur on any specific date, or the amount of reduction attributable to any specific element of the NO_X Rule. As noted earlier, these reductions are likely included in the 2016v2 emission platform, and that modeling continues to show that Maryland is contributing to downwind nonattainment and maintenance receptors for the 2015 8-hour ozone NAAQS.

The SIP submission also listed several control measures, including regulation of emissions from the mobile sector, pursuing significant regulation of industrial sources, and implementing VOC rules that regulate emissions from other source categories that Maryland has implemented to address the control of VOC and NO_X emissions from various point, mobile, and area sources. Maryland's submission also described additional voluntary or innovative control measures that the State has implemented in attainment plan SIP provisions and stated that even though they do not rely on any emission reductions projected as a result of the implementation of these voluntary programs to demonstrate attainment, these strategies assist in the overall clean air goals across the State.

Unfortunately, Maryland failed to provide any analysis as to how these many provisions cited in its 2019 SIP Submittal would eliminate the significant contribution of Maryland's emission sources to downwind nonattainment or maintenance receptors to which Maryland's emissions are linked by the EPA's 2016v2 emissions platform. As noted in Section D–4 of this proposal, ''[i]n general, where the EPA's or alternative air quality and contribution modeling establishes that a state is linked at Steps 1 and 2, it will be insufficient at Step 3 for a state merely to point to its existing rules requiring control measures as a basis for approval. In general, the emissions-reducing effects of all existing emissions control requirements are already reflected in the air quality results of the modeling for Steps 1 and 2. If the state is shown to still be linked to one or more downwind receptor(s), states must provide a well-documented evaluation determining whether their emissions constitute significant contribution or interference with maintenance by evaluating additional available control opportunities by preparing a multifactor assessment.'' Maryland provided no such multifactor assessment, and instead claims, without any modeling to support this claim, that its existing, already adopted control measures for EGUs and other sources will keep Maryland from contributing significantly to nonattainment or interfere with maintenance at downwind receptors to which it is linked. As such, it does not rise to the level of a ''well-documented evaluation.''

Maryland's SIP submittal also included a weight of evidence analysis which analyzed various scenarios. These scenarios evaluated various iterations of controls, including SCR controls and emission limits comparable to those under the 2015 Maryland NO_X Rule, and applied these SCR controls and limits to emissions sources in other states (IL, IN, KY, MI, NC, OH, WV, VA, NY and PA). This is the same weight of evidence analysis that Maryland included with its transport SIP submittal for the 2008 ozone NAAQS. This modeling analysis only addressed the impact that installation of these controls and imposition of these limits in other states would have on Maryland's monitors. There is no analysis in this weight of evidence portion addressing Maryland's contribution to downwind receptors. It therefore does not change the EPA's evaluation of Maryland's obligations to address its own contributions.

The EPA acknowledges that Maryland's efforts to reduce NO_X emissions from EGUs, and other requirements to reduce NO_X and VOC emissions from other source categories, have helped reduce the interstate transport impacts of emissions from Maryland's sources on other states' receptors. In addition to addressing ambient ozone levels in nonattainment areas in Maryland, these state specific requirements should also help reduce the level of NO_X emissions reductions that Maryland needs to obtain in order to meet the section 110(a)(2)(D)(i)(I) requirements for the 2015 8-hour ozone NAAQS.

Based on the EPA's evaluation of Maryland's SIP submittal at Step 3, however, the EPA proposes that Maryland was required to analyze emissions from the sources and other emissions activity from within the state to determine whether its contributions were significant, and therefore the EPA proposes to base part of its disapproval on Maryland's failure to do so.

4. Evaluation of Information Provided Regarding Step 4

Step 4 of the 4-step interstate transport framework calls for development of permanent and federally enforceable control strategies to achieve the emissions reductions determined to be necessary at Step 3 to eliminate significant contribution to nonattainment or interference with maintenance of the NAAQS. Maryland identified a number of measures that were either in development or anticipated to occur in the future.[46] As

[45] Deeper reductions include meeting a 30-day system-wide rolling average NO_X emission rate of 0.13 lbs/MMBtu in May 2016, 0.11 lbs/MMBtu in May 2018, and 0.09 lbs/MMBtu in May 2020 during the ozone season.

[46] Pointing to anticipated upcoming emission reductions, even if they were not included in the analysis at Steps 1 and 2, is not sufficient as a Step 3 analysis, for the reasons discussed in Section III.A.3 of this document. In this section, the EPA explains that to the extent such anticipated reductions are not included in the SIP and rendered permanent and enforceable, reliance on such anticipated reductions is also insufficient at Step 4.

discussed in detail in the Step 3 analysis above, Phase II of Maryland's NO_X Rule (COMAR 26.11.38.04) requires coal-fired EGUs that have not installed SCR to choose from one of four options by June 1, 2020 that should result in NO_X emission reductions.[47] Another measure is the Regional Greenhouse Gas Initiative (RGGI), which Maryland projects will result in Maryland's and other participating states' regional CO_2 emission budgets declining by 30% by 2030.[48] However, the State has not revised its SIP to include these emission reductions to ensure the reductions are permanent and enforceable. As a result, the EPA also proposes as an additional ground for disapproval of Maryland's SIP submission the fact that the State has not developed permanent and enforceable emissions reductions necessary to meet the obligations of CAA section 110(a)(2)(d)(i)(I).

5. Conclusion

Based on the EPA's evaluation of Maryland's SIP submission, the EPA is proposing to find that Maryland's October 16, 2019 SIP submission does not meet the State's interstate transport obligations, because it fails to show that the provisions adopted by Maryland to reduce NO_X and VOC emissions from sources within Maryland will reduce emissions to levels that will not contribute significantly to nonattainment or interfere with maintenance of the 2015 8-hour ozone NAAQS at downwind monitors in other states to which it is linked. Maryland's 2019 SIP submission lacks an analysis of the effect that Maryland's adopted emission reductions would have on the specific downwind monitors which the EPA's March 2018 memorandum modeling analysis and 2016v2 emissions platform analysis determined that Maryland sources contribute more than 1 percent to nonattainment or interference with maintenance. Maryland's SIP submission disputes neither the significant contribution from Maryland nor the ''linkages'' between Maryland emissions and these downwind nonattainment or maintenance monitors. Further, although Maryland objects to the modeling assessment included with the EPA's March 2018 Memorandum, it does not offer an alternative modeling assessment showing that projected reductions in Maryland's emissions, as outlined in its 2019 SIP submittal, would eliminate the contribution Maryland's emissions make to non-attaining or maintenance monitors identified by the EPA's 2018 memorandum modeling assessment, or to those in the more recent 2016v2 emissions platform assessment. Maryland's modeling assessment in its 2019 SIP submittal merely explores the varying effects that various emission reduction strategies in eastern states would have on ozone nonattainment in general, rather than the effect Maryland's reductions would have on non-attaining or maintenance monitors to which it is linked.

[47] *See* Maryland's October 16, 2019 SIP submittal at pages 8–9, included in docket ID No. EPA–R03–OAR–2021–0872.

[48] *Id.* at 16.

IV. Proposed Action

The EPA is proposing to disapprove Maryland's October 16, 2019 SIP submission pertaining to interstate transport of air pollution which will significantly contribute to nonattainment or interfere with maintenance of the 2015 8-hour ozone NAAQS in other states. Under CAA section 110(c)(1), disapproval would establish a 2-year deadline for the EPA to promulgate a FIP for Maryland to address the CAA section 110(a)(2)(D)(i)(I) interstate transport requirements pertaining to significant contribution to nonattainment and interference with maintenance of the 2015 8-hour ozone NAAQS in other states, unless the EPA approves a new Maryland SIP submission that meets these requirements. Disapproval does not start a mandatory sanctions clock for Maryland.

V. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review

This action is not a ''significant regulatory action'' as defined by Executive Order 12866 and was therefore not submitted to the Office of Management and Budget for review.

B. Paperwork Reduction Act (PRA)

This proposed action does not impose an information collection burden under the PRA because it does not contain any information collection activities

C. Regulatory Flexibility Act (RFA)

I certify that this action will not have a significant economic impact on a substantial number of small entities under the RFA. This action merely proposes to disapprove a SIP submission as not meeting the CAA.

D. Unfunded Mandates Reform Act (UMRA)

This action does not contain any unfunded mandate as described in UMRA, 2 U.S.C. 1531–1538, and does not significantly or uniquely affect small governments. The action imposes no enforceable duty on any state, local or tribal governments or the private sector.

E. Executive Order 13132: Federalism

This action does not have federalism implications. It will not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government.

F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments

This action does not have tribal implications as specified in Executive Order 13175. This action does not apply on any Indian reservation land, any other area where the EPA or an Indian tribe has demonstrated that a tribe has jurisdiction, or non-reservation areas of Indian country. Thus, Executive Order 13175 does not apply to this action.

G. Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks

The EPA interprets Executive Order 13045 as applying only to those regulatory actions that concern environmental health or safety risks that the EPA has reason to believe may disproportionately affect children, per the definition of ''covered regulatory action'' in section 2–202 of the Executive Order. This action is not subject to Executive Order 13045 because it merely proposes to disapprove a SIP submission as not meeting the CAA.

H. Executive Order 13211, Actions That Significantly Affect Energy Supply, Distribution or Use

This action is not subject to Executive Order 13211, because it is not a significant regulatory action under Executive Order 12866.

I. National Technology Transfer and Advancement Act

This rulemaking does not involve technical standards.

J. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations

The EPA believes the human health or environmental risk addressed by this

action will not have potential disproportionately high and adverse human health or environmental effects on minority, low-income or indigenous populations. This action merely proposes to disapprove a SIP submission as not meeting the CAA.

K. CAA Section 307(b)(1)

Section 307(b)(1) of the CAA governs judicial review of final actions by the EPA. This section provides, in part, that petitions for review must be filed in the D.C. Circuit: (i) When the agency action consists of ''nationally applicable regulations promulgated, or final actions taken, by the Administrator,'' or (ii) when such action is locally or regionally applicable, if ''such action is based on a determination of nationwide scope or effect and if in taking such action the Administrator finds and publishes that such action is based on such a determination.'' For locally or regionally applicable final actions, the CAA reserves to the EPA complete discretion whether to invoke the exception in (ii).[49]

If the EPA takes final action on this proposed rulemaking the Administrator intends to exercise the complete discretion afforded to him under the CAA to make and publish a finding that the final action (to the extent a court finds the action to be locally or regionally applicable) is based on a determination of ''nationwide scope or effect'' within the meaning of CAA section 307(b)(1). Through this rulemaking action (in conjunction with a series of related actions on other SIP submissions for the same CAA obligations), the EPA interprets and applies section 110(a)(2)(d)(i)(I) of the CAA for the 2015 8-hour ozone NAAQS based on a common core of nationwide policy judgments and technical analysis concerning the interstate transport of pollutants throughout the continental U.S. In particular, the EPA is applying here (and in other proposed actions related to the same obligations) the same, nationally consistent 4-step framework for assessing good neighbor obligations for the 2015 8-hour ozone NAAQS. The EPA relies on a single set of updated, 2016-base year photochemical grid modeling results of the year 2023 as the primary basis for its assessment of air quality conditions and contributions at Steps 1 and 2 of that framework. Further, the EPA proposes to determine and apply a set of nationally consistent policy judgments to apply the 4-step framework. The EPA has selected a nationally uniform analytic year (2023) for this analysis and is applying a nationally uniform definition of nonattainment and maintenance receptors at Step 1, and a nationally uniform contribution threshold analysis at Step 2.[50] For these reasons, the Administrator intends, if this proposed action is finalized, to exercise the complete discretion afforded to him under the CAA to make and publish a finding that this action is based on one or more determinations of nationwide scope or effect for purposes of CAA section 307(b)(1).[51]

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Ozone.

Authority: 42 U.S.C. 7401 *et seq.*

Dated: February 7, 2022.

Diana Esher,

Acting Regional Administrator, Region III.

[FR Doc. 2022–02951 Filed 2–18–22; 8:45 am]

BILLING CODE 6560–50–P

[49] In deciding whether to invoke the exception by making and publishing a finding that an action is based on a determination of nationwide scope or effect, the Administrator takes into account a number of policy considerations, including his judgment balancing the benefit of obtaining the D.C. Circuit's authoritative centralized review versus allowing development of the issue in other contexts and the best use of agency resources.

[50] A finding of nationwide scope or effect is also appropriate for actions that cover states in multiple judicial circuits. In the report on the 1977 Amendments that revised section 307(b)(1) of the CAA, Congress noted that the Administrator's determination that the ''nationwide scope or effect'' exception applies would be appropriate for any action that has a scope or effect beyond a single judicial circuit. See H.R. Rep. No. 95–294 at 323, 324, reprinted in 1977 U.S.C.C.A.N. 1402–03.

[51] The EPA may take a consolidated, single final action on all of the proposed SIP disapproval actions with respect to obligations under CAA section 110(a)(2)(D)(i)(I) for the 2015 ozone NAAQS. Should EPA take a single final action on all such disapprovals, this action would be nationally applicable, and the EPA would also anticipate, in the alternative, making and publishing a finding that such final action is based on a determination of nationwide scope or effect.

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA–R09–OAR–2022–0106; FRL–9527–01–R9]

Air Plan Approval; Nevada; Clark County Department of Environment and Sustainability

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The Environmental Protection Agency (EPA) is proposing to approve revisions to the Clark County Department of Environment and Sustainability (DES) portion of the Nevada State Implementation Plan (SIP). These revisions concern the title change of the Clark County Department of Air Quality to the Department of Environment and Sustainability. We are proposing to approve this title change. The ''department of air quality'' was deleted in the air quality regulations and replaced with ''department.'' We are taking comments on this proposal and plan to follow with a final action.

DATES: Any comments must arrive by March 24, 2022.

ADDRESSES: Submit your comments, identified by Docket ID No. EPA–R09–OAR–2022–0106 at *https://www.regulations.gov*. For comments submitted at *Regulations.gov,* follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from *Regulations.gov*. The EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. The EPA will generally not consider comments or comment contents located outside of the primary submission (*i.e.,* on the web, cloud, or other file sharing system). For additional submission methods, please contact the person identified in the **FOR FURTHER INFORMATION CONTACT** section. For the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit *https://www.epa.gov/dockets/commenting-epa-dockets*. If you need assistance in a language other than English or if you are a person with disabilities who needs a reasonable accommodation at no cost to you, please contact the person identified in the **FOR FURTHER INFORMATION CONTACT** section.

FOR FURTHER INFORMATION CONTACT: Christine Vineyard, EPA Region IX, 75 Hawthorne St., San Francisco, CA 94105. By phone: (415) 947–4125 or by email at *vineyard.christine@epa.gov*.

SUPPLEMENTARY INFORMATION: Throughout this document, ''we,'' ''us'' and ''our'' refer to the EPA.

Table of Contents

I. The State's Submittal

A. What rules did the State submit?

Table 1 lists the rules addressed by this proposal with the dates that they were adopted by Clark County DES and submitted by the Nevada Division of Environmental Protection (NDEP).

TABLE 1—SUBMITTED RULES

Local agency	Rule No.	Rule title	Amended	Submitted
DES	Rule 2	Procedures for Adoption and Revision of Regulations and for Inclusion of those Regulations in the State Implementation Plan.	1/21/20	3/13/20
DES	Rule 33	Chlorine in Chemical Processes	1/21/20	3/13/20
DES	Rule 41	Fugitive Dust	1/21/20	3/13/20
DES	Rule 53	Oxygenated Gasoline Program	1/21/20	3/13/20
DES	Rule 90	Fugitive Dust from Open Areas and Vacant Lots	1/21/20	3/13/20
DES	Rule 93	Fugitive Dust from Paved Roads and Street Sweeping Equipment	1/21/20	3/13/20
DES	Rule 94	Permitting and Dust Control for Construction Activities	1/21/20	3/13/20

On September 13, 2020, the submitted rules in Table 1 were deemed to be complete by operation of law to meet the completeness criteria in 40 CFR part 51 Appendix V, which must be met before formal EPA review.

B. Are there other versions of these rules?

We approved an earlier version of Rule 2 into the SIP on August 27, 1981 (46 FR 43141). The Clark County DES adopted revisions to the SIP-approved version on January 21, 2020, and NDEP submitted it to us on March 13, 2020.

We approved an earlier version of Rule 33 into the SIP on September 7, 2004 (69 FR 54006). The Clark County DES adopted a revision to the SIP-approved version on January 21, 2020, and NDEP submitted it to us on March 13, 2020.

We approved an earlier version of Rule 41 into the SIP on October 6, 2014 (79 FR 60078). The Clark County DES adopted a revision to the SIP-approved version on January 21, 2020, and NDEP submitted it to us on March 13, 2020.

We approved an earlier version of Rule 53 into the SIP on September 21, 2004 (69 FR 56351). The Clark County DES adopted a revision to the SIP-approved version on January 21, 2020, and NDEP submitted it to us on March 13, 2020.

We approved an earlier version of Rule 90 into the SIP on October 6, 2014 (79 FR 60078). The Clark County DES adodpted a revision to the SIP-approved version on January 21, 2020, and NDEP submitted it to us on March 13, 2020.

We approved an earlier version of Rule 93 into the SIP on October 6, 2014 (79 FR 60078). The Clark County DES adopted a revision to the SIP-approved version on January 21, 2020, and NDEP submitted it to us on March 13, 2020.

We approved an earlier version of Rule 94 into the SIP on October 30, 2006 (71 FR 63250). The Clark County DES adopted a revision to the SIP-approved vesion on January 21, 2020, and NDEP submitted it to us on March 13, 2020.

While we can act on only the most recently submitted version, we have reviewed materials provided with previous submittals.

C. What is the purpose of the submitted rule revisions?

The purpose of these submitted rule revisions is to delete ''the department of air quality'' everywhere it appears in the submitted rules and replacing it with ''department'' and to update formatting.

The EPA's technical support document (TSD) and submitted staff report have more information about these rules.

II. The EPA's Evaluation and Action

A. How is the EPA evaluating the rules?

Rules in the SIP must be enforceable (see CAA section 110(a)(2)), must not interfere with applicable requirements concerning attainment and reasonable further progress or other CAA requirements (see CAA section 110(l)), and must not modify certain SIP control requirements in nonattainment areas without ensuring equivalent or greater emissions reductions (see CAA section 193).

Guidance and policy documents that we used to evaluate enforceability, revision/relaxation and rule stringency requirements for the applicable criteria pollutants include the following:

1. ''State Implementation Plans; General Preamble for the Implementation of Title I of the Clean Air Act Amendments of 1990,'' 57 FR 13498 (April 16, 1992); 57 FR 18070 (April 28, 1992).
2. ''Issues Relating to VOC Regulation Cutpoints, Deficiencies, and Deviations,'' EPA, May 25, 1988 (the Bluebook, revised January 11, 1990).
3. ''Guidance Document for Correcting Common VOC & Other Rule Deficiencies,'' EPA Region 9, August 21, 2001 (the Little Bluebook).

B. Do the rules meet the evaluation criteria?

These rules are consistent with CAA requirements and relevant guidance regarding enforceability. The TSD has more information on our evaluation.

C. Public Comment and Proposed Action

As authorized in section 110(k)(3) of the Act, the EPA proposes to fully approve the submitted rules because they fulfill all relevant requirements. We will accept comments from the public on this proposal until March 24, 2022. If we take final action to approve the submitted rules, our final action will incorporate these rules into the federally enforceable SIP.

III. Incorporation by Reference

In this proposed rule, the EPA is proposing to include in a final EPA rule regulatory text that includes incorporation by reference. In accordance with requirements of 1 CFR 51.5, the EPA is proposing to incorporate by reference the Clark County DES rules described in Table 1 of this preamble. The EPA has made, and will continue to make, these materials available through *https://www.regulations.gov* and at the EPA Region IX Office (please contact the person identified in the **FOR FURTHER INFORMATION CONTACT** section of this preamble for more information).

IV. Statutory and Executive Order Reviews

Under the Clean Air Act, the Administrator is required to approve a SIP submission that complies with the provisions of the Act and applicable federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, the EPA's role is to approve state choices, provided that they meet the criteria of the Clean Air Act. Accordingly, this proposed action merely proposes to approve state law as meeting federal requirements and does not impose additional requirements beyond those imposed by state law. For that reason, this proposed action:

- Is not a ''significant regulatory action'' subject to review by the Office of Management and Budget under Executive Orders 12866 (58 FR 51735, October 4, 1993) and 13563 (76 FR 3821, January 21, 2011);
- Does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*);
- Is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*);
- Does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Pub. L. 104–4);
- Does not have federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- Is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- Is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001);
- Is not subject to requirements of Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the Clean Air Act; and
- Does not provide the EPA with the discretionary authority to address disproportionate human health or environmental effects with practical, appropriate, and legally permissible methods under Executive Order 12898 (59 FR 7629, February 16, 1994).

In addition, the SIP is not approved to apply on any Indian reservation land or in any other area where the EPA or an Indian tribe has demonstrated that a tribe has jurisdiction. In those areas of Indian country, the proposed rule does not have tribal implications and will not impose substantial direct costs on tribal governments or preempt tribal law as specified by Executive Order 13175 (65 FR 67249, November 9, 2000).

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Carbon monoxide, Incorporation by reference, Intergovernmental relations, Nitrogen dioxide, Ozone, Particulate matter, Reporting and recordkeeping requirements, Volatile organic compounds.

Authority: 42 U.S.C. 7401 *et seq.*

Dated: February 15, 2022.

Martha Guzman Aceves,

Regional Administrator, Region IX.

[FR Doc. 2022–03690 Filed 2–18–22; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

EPA–R07–OAR–2021–0870; EPA–HQ–OAR–2021–0663; FRL–9468–01–R7]

Air Plan Approval; Iowa; Interstate Transport of Air Pollution for the 2015 8-Hour Ozone National Ambient Air Quality Standards

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule and withdrawal of proposed rule.

SUMMARY: The Clean Air Act (CAA) requires each State Implementation Plan (SIP) to contain adequate provisions prohibiting emissions that will significantly contribute to nonattainment or interfere with maintenance of air quality in other states. The State of Iowa made a submission to the Environmental Protection Agency (EPA or Agency) to address these requirements for the 2015 ozone National Ambient Air Quality Standards (NAAQS). EPA is proposing to approve the submission for Iowa as meeting the requirement that the SIP contains adequate provisions to prohibit emissions that will significantly contribute to nonattainment or interfere with maintenance of the 2015 ozone NAAQS in any other state. The EPA is also withdrawing its previous proposed rule to approve Iowa's SIP submission, as published in the **Federal Register** on March 2, 2020.

DATES:

Comments: Written comments on this proposed rule must be received on or before March 24, 2022.

Withdrawal: As of February 22, 2022, the proposed rule published March 2, 2020, at 85 FR 12232, is withdrawn.

ADDRESSES: You may send comments, identified as Docket No. EPA–R07–OAR–2021–0870, by any of the following methods: Federal eRulemaking Portal at *https://www.regulations.gov* following the online instructions for submitting comments or via email to *stone.william@epa.gov.* Include Docket ID No. EPA–R07–OAR–2021–0870 in the subject line of the message.

Instructions: All submissions received must include the Docket ID No. for this rulemaking. Comments received may be posted without change to *https://www.regulations.gov/,* including any personal information provided. For detailed instructions on sending comments and additional information on the rulemaking process, see the ''Public Participation'' heading of the **SUPPLEMENTARY INFORMATION** section of this document. Out of an abundance of caution for members of the public and our staff, the EPA Docket Center and Reading Room are open to the public by appointment only to reduce the risk of transmitting COVID–19. Our Docket Center staff also continues to provide remote customer service via email, phone, and webform. For further information on EPA Docket Center services and the current status, please visit us online at *https://www.epa.gov/dockets.*

FOR FURTHER INFORMATION CONTACT: William Stone, Environmental Protection Agency, Region 7 Office, Air Quality Planning Branch, 11201 Renner Boulevard, Lenexa, Kansas 66219; telephone number: (913) 551–7714; email address: *stone.william@epa.gov.*

SUPPLEMENTARY INFORMATION: *Public participation:* Submit your comments, identified by Docket ID No. EPA–R07–OAR–2021–0870, at *https://www.regulations.gov* (our preferred method), or the other methods identified in the **ADDRESSES** section. Once submitted, comments cannot be edited or removed from the docket. The EPA may publish any comment received to its public docket. Do not submit to EPA's docket at *https://www.regulations.gov* any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to

make. The EPA will generally not consider comments or comment contents located outside of the primary submission (*i.e.,* on the web, cloud, or other file sharing system).

There are two dockets supporting this action, EPA–R07–OAR–2021–0870 and EPA–HQ–OAR–2021–0663. Docket No. EPA–R07–OAR–2021–0870 contains information specific to Iowa, including the notice of proposed rulemaking. Docket No. EPA–HQ–OAR–2021–0663 contains additional modeling files, emissions inventory files, technical support documents, and other relevant supporting documentation regarding interstate transport of emissions for the 2015 8-hour ozone NAAQS which are being used to support this action. All comments regarding information in either of these dockets are to be made in Docket No. EPA–R07–OAR–2021–0870. For additional submission methods, please contact William Stone, (913) 551–7714, *stone.william@epa.gov.* For the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit *https://www.epa.gov/dockets/commenting-epa-dockets.* Due to public health concerns related to COVID–19, the EPA Docket Center and Reading Room are open to the public by appointment only. Our Docket Center staff also continues to provide remote customer service via email, phone, and webform. For further information and updates on EPA Docket Center services, please visit us online at *https://www.epa.gov/dockets.*

The EPA continues to carefully and continuously monitor information from the Centers for Disease Control and Prevention (CDC), local area health departments, and our Federal partners so that we can respond rapidly as conditions change regarding COVID–19. The index to the docket for this action, Docket No. EPA–R07–OAR–2021–0870, is available electronically at *www.regulations.gov.* While all documents in the docket are listed in the index, some information may not be publicly available due to docket file size restrictions or content (*e.g.,* CBI).

Throughout this document, ''we,'' ''us,'' and ''our'' means the EPA.

Table of Contents

I. Background

A. Description of Statutory Background

On October 1, 2015, the EPA promulgated a revision to the ozone NAAQS (2015 8-hour ozone NAAQS), lowering the level of both the primary and secondary standards to 0.070 parts per million (ppm).[1] Section 110(a)(1) of the CAA requires states to submit, within 3 years after promulgation of a new or revised standard, SIP submissions meeting the applicable requirements of section 110(a)(2).[2] One of these applicable requirements is found in CAA section 110(a)(2)(D)(i)(I), otherwise known as the ''interstate transport'' or ''good neighbor'' provision, which generally requires SIPs to contain adequate provisions to prohibit in-state emissions activities from having certain adverse air quality effects on other states due to interstate transport of pollution. There are two so-called ''prongs'' within CAA section 110(a)(2)(D)(i)(I). A SIP for a new or revised NAAQS must contain adequate provisions prohibiting any source or other type of emissions activity within the state from emitting air pollutants in amounts that will significantly contribute to nonattainment of the NAAQS in another state (prong 1) or interfere with maintenance of the NAAQS in another state (prong 2). The EPA and states must give independent significance to prong 1 and prong 2 when evaluating downwind air quality problems under CAA section 110(a)(2)(D)(i)(I).[3]

B. Description of the EPA's Four Step Interstate Transport Regulatory Process

The EPA is using the 4-step interstate transport framework (or 4-step framework) to evaluate the state's SIP submittals addressing the interstate transport provision for the 2015 8-hour ozone NAAQS. The EPA has addressed the interstate transport requirements of CAA section 110(a)(2)(D)(i)(I) with respect to prior ozone NAAQS in several regional regulatory actions, including the Cross-State Air Pollution Rule (CSAPR), which addressed interstate transport with respect to the 1997 ozone NAAQS as well as the 1997 and 2006 fine particulate matter standards,[4] and the Cross-State Air Pollution Rule Update (CSAPR Update) [5] and the Revised CSAPR Update, both of which addressed the 2008 ozone NAAQS.[6]

Through the development and implementation of the CSAPR rulemakings and prior regional rulemakings pursuant to the interstate transport provision,[7] the EPA, working in partnership with states, developed the following 4-step interstate transport framework to evaluate a State's obligations to eliminate interstate transport emissions under the interstate transport provision for the ozone NAAQS: (1) Identify monitoring sites that are projected to have problems attaining and/or maintaining the NAAQS (*i.e.,* nonattainment and/or maintenance receptors); (2) identify states that impact those air quality problems in other (*i.e.,* downwind) states sufficiently such that the states are considered ''linked'' and therefore warrant further review and analysis; (3) identify the emissions reductions necessary (if any), applying a multifactor analysis, to eliminate each linked upwind state's significant contribution to nonattainment or interference with maintenance of the NAAQS at the locations identified in step 1; and (4) adopt permanent and enforceable measures needed to achieve those emissions reductions.

C. Background on the EPA's Ozone Transport Modeling Information

In general, the EPA has performed nationwide air quality modeling to project ozone design values which are used in combination with measured data to identify nonattainment and maintenance receptors. To quantify the

[1] National Ambient Air Quality Standards for Ozone, Final Rule, 80 FR 65292 (October 26, 2015). Although the level of the standard is specified in the units of ppm, ozone concentrations are also described in parts per billion (ppb). For example, 0.070 ppm is equivalent to 70 ppb.

[2] SIP revisions that are intended to meet the applicable requirements of section 110(a)(1) and (2) of the CAA are often referred to as infrastructure SIPs and the applicable elements under section 110(a)(2) are referred to as infrastructure requirements.

[3] *See North Carolina* v. *EPA,* 531 F.3d 896, 909–11 (D.C. Cir. 2008).

[4] *See* Federal Implementation Plans: Interstate Transport of Fine Particulate Matter and Ozone and Correction of SIP Approvals, 76 FR 48208 (Aug. 8, 2011).

[5] Cross-State Air Pollution Rule Update for the 2008 Ozone NAAQS, 81 FR 74504 (Oct. 26, 2016).

[6] In 2019, the D.C. Circuit Court of Appeals remanded the CSAPR Update to the extent it failed to require upwind states to eliminate their significant contribution by the next applicable attainment date by which downwind states must come into compliance with the NAAQS, as established under CAA section 181(a). *Wisconsin* v. *EPA,* 938 F.3d 303, 313 (D.C. Cir. 2019). The Revised CSAPR Update for the 2008 Ozone NAAQS, 86 FR 23054 (April 30, 2021), responded to the remand of the CSAPR Update in *Wisconsin* and the vacatur of a separate rule, the ''CSAPR Close-Out,'' 83 FR 65878 (December 21, 2018), in *New York* v. *EPA,* 781 F. App'x. 4 (D.C. Cir. 2019).

[7] In addition to the CSAPR rulemakings, other regional rulemakings addressing ozone transport include the ''NO_X SIP Call,'' 63 FR 57356 (October 27, 1998), and the ''Clean Air Interstate Rule'' (CAIR), 70 FR 25162 (May 12, 2005).

contribution of emissions from specific upwind states on 2023 ozone design values for the identified downwind nonattainment and maintenance receptors, the EPA performed nationwide, state-level ozone source apportionment modeling for 2023. The source apportionment modeling provided contributions to ozone at receptors from precursor emissions of anthropogenic nitrogen oxides (NO_X) and volatile organic compounds (VOCs) in individual upwind states.

The EPA has released several documents containing projected ozone design values, contributions, and information relevant to evaluating interstate transport with respect to the 2015 8-hour ozone NAAQS. First, on January 6, 2017, the EPA published a notice of data availability (NODA) in which we requested comment on preliminary interstate ozone transport data including projected ozone design values and interstate contributions for 2023 using a 2011 base year platform.[8] In the NODA, the EPA used the year 2023 as the analytic year for this preliminary modeling because that year aligns with the expected attainment year for Moderate ozone nonattainment areas for the 2015 8-hour ozone NAAQS.[9] On October 27, 2017, we released a memorandum (October 2017 memorandum) containing updated modeling data for 2023, which incorporated changes made in response to comments on the NODA, and noted that the modeling may be useful for states developing SIPs to address interstate transport obligations for the 2008 ozone NAAQS.[10] On March 27, 2018, we issued a memorandum (March 2018 memorandum) noting that the same 2023 modeling data released in the October 2017 memorandum could also be useful for identifying potential downwind air quality problems with respect to the 2015 8-hour ozone NAAQS at Step 1 of the 4-step interstate transport framework.[11] The March 2018 memorandum also included the then newly available contribution modeling data to assist states in evaluating their impact on potential downwind air quality problems for the 2015 8-hour ozone NAAQS under Step 2 of the 4-step interstate transport framework.[12] The EPA subsequently issued two more memoranda in August and October 2018, providing additional information to states developing interstate transport SIP submissions for the 2015 8-hour ozone NAAQS concerning, respectively, potential contribution thresholds that may be appropriate to apply in Step 2 of the 4-step interstate transport framework, and considerations for identifying downwind areas that may have problems maintaining the standard at Step 1 of the 4-step interstate transport framework.[13]

Since the release of the modeling data shared in the March 2018 memorandum, the EPA performed updated modeling using a 2016-based emissions modeling platform (*i.e.,* 2016v1). This emissions platform was developed under the EPA/Multi-Jurisdictional Organization (MJO)/state collaborative project.[14] This collaborative project was a multi-year joint effort by the EPA, MJOs, and states to develop a new, more recent emissions platform for use by the EPA and states in regulatory modeling as an improvement over the dated 2011-based platform that the EPA had used to project ozone design values and contribution data provided in the 2017 and 2018 memoranda. The EPA used the 2016v1 emissions to project ozone design values and contributions for 2023. On October 30, 2020, in the Notice of Proposed Rulemaking for the Revised CSAPR Update, the EPA released and accepted public comment on 2023 modeling that used the 2016v1 emissions platform.[15] Although the Revised CSAPR Update addressed transport for the 2008 ozone NAAQS, the projected design values and contributions from the 2016v1 platform are also useful for identifying downwind ozone problems and linkages with respect to the 2015 ozone NAAQS.[16]

Following the final Revised CSAPR Update, the EPA made further updates to the 2016 emissions platform to include mobile emissions from the EPA's Motor Vehicle Emission Simulator MOVES3 model[17] and updated emissions projections for electric generating units (EGUs) that reflect the emissions reductions from the Revised CSAPR Update, recent information on plant closures, and other sector trends. The construct of the updated emissions platform, 2016v2, is described in the emissions modeling technical support document (TSD) for this proposed rule.[18] The EPA performed air quality modeling of the 2016v2 emissions using the most recent public release version of the Comprehensive Air-quality Model with extensions (CAMx) photochemical modeling, version 7.10.[19] The EPA now proposes to primarily rely on modeling based on the updated and newly available 2016v2 emissions platform in evaluating these submissions with respect to Steps 1 and 2 of the 4-step interstate transport framework and generally referenced within this action as 2016v2 modeling for 2023. By using the updated modeling results, the EPA is using the most current and technically appropriate information for this proposed rulemaking. Section III of this document and the Air Quality Modeling TSD for 2015 Ozone NAAQS Transport SIP Proposed Actions, included in Docket ID No. EPA–HQ–OAR–2021–0663 for this proposal, contain additional detail on the EPA's 2016v2 modeling. In this document, the

[8] *See* Notice of Availability of the Environmental Protection Agency's Preliminary Interstate Ozone Transport Modeling Data for the 2015 8-hour Ozone National Ambient Air Quality Standard (NAAQS), 82 FR 1733 (January 6, 2017).

[9] 82 FR at 1735.

[10] *See* Information on the Interstate Transport State Implementation Plan Submissions for the 2008 Ozone National Ambient Air Quality Standards under Clean Air Act Section 110(a)(2)(D)(i)(I), October 27, 2017, available in docket ID No. EPA–HQ–OAR–2021–0663 or at *https://www.epa.gov/node/194139/.*

[11] *See* Information on the Interstate Transport State Implementation Plan Submissions for the 2015 Ozone National Ambient Air Quality Standards under Clean Air Act Section 110(a)(2)(D)(i)(I), March 27, 2018 (''March 2018 memorandum''), available in docket ID No. EPA–HQ–OAR–2021–0663 or at *https://www.epa.gov/airmarkets/memo-and-supplemental-information-regarding-interstate-transport-sips-2015-ozone-naaqs.*

[12] The March 2018 memorandum, however, provided, ''While the information in this memorandum and the associated air quality analysis data could be used to inform the development of these SIPs, the information is not a final determination regarding states' obligations under the good neighbor provision. Any such determination would be made through notice-and-comment rulemaking.''

[13] *See* Analysis of Contribution Thresholds for Use in Clean Air Act Section 110(a)(2)(D)(i)(I) Interstate Transport State Implementation Plan Submissions for the 2015 Ozone National Ambient Air Quality Standards, August 31, 2018 (''August 2018 memorandum''), and Considerations for Identifying Maintenance Receptors for Use in Clean Air Act Section 110(a)(2)(D)(i)(I) Interstate Transport State Implementation Plan Submissions for the 2015 Ozone National Ambient Air Quality Standards, October 19, 2018, available in docket ID No. EPA–HQ–OAR–2021–0663 or at *https://www.epa.gov/airmarkets/memo-and-supplemental-information-regarding-interstate-transport-sips-2015-ozone-naaqs.*

[14] The results of this modeling, as well as the underlying modeling files, are included in docket ID No. EPA–HQ–OAR–2021–0663.

[15] *See* 85 FR 68964, 68981.

[16] See the Air Quality Modeling Technical Support Document for the Final Revised Cross-State Air Pollution Rule Update, included in the Headquarters docket ID No. EPA–HQ–OAR–2021–0663.

[17] Additional details and documentation related to the MOVES3 model can be found at *https://www.epa.gov/moves/latest-version-motor-vehicle-emission-simulator-moves.*

[18] See Technical Support Document (TSD) Preparation of Emissions Inventories for the 2016v2 North American Emissions Modeling Platform included in the Headquarters docket ID No. EPA–HQ–OAR–2021–0663.

[19] Ramboll Environment and Health, January 2021, *www.camx.com.*

EPA is accepting public comment on this updated 2023 modeling, which uses a 2016v2 emissions platform. Comments on the EPA's air quality modeling should be submitted in the Regional docket for this action, docket ID No. EPA–R07–OAR–2021–0870. Comments are not being accepted in docket ID No. EPA–HQ–OAR–2021–0663.

D. The EPA's Approach To Evaluating Interstate Transport SIPs for the 2015 8-Hour Ozone NAAQS

The EPA proposes to apply a consistent set of policy judgments across all states for purposes of evaluating interstate transport obligations and the approvability of interstate transport SIP submittals for the 2015 8-hour ozone NAAQS. These policy judgments reflect consistency with relevant case law and past agency practice as reflected in the CSAPR and related rulemakings. Nationwide consistency in approach is particularly important in the context of interstate ozone transport, which is a regional-scale pollution problem involving many smaller contributors. Effective policy solutions to the problem of interstate ozone transport going back to the NO_X SIP Call have necessitated the application of a uniform framework of policy judgments in order to ensure an ''efficient and equitable'' approach. *See EME Homer City Generation, LP* v. *EPA,* 572 U.S. 489, 519 (2014).

In the March, August, and October 2018 memoranda, the EPA recognized that states may be able to establish alternative approaches to addressing their interstate transport obligations for the 2015 8-hour ozone NAAQS that vary from a nationally uniform framework. The EPA emphasized in these memoranda, however, that such alternative approaches must be technically justified and appropriate in light of the facts and circumstances of each particular state's submittal. In general, the EPA continues to believe that deviation from a nationally consistent approach to ozone transport must be substantially justified and have a well-documented technical basis that is consistent with relevant case law. Where states submitted SIPs that rely on any such potential ''flexibilities'' as may have been identified or suggested in the past, the EPA will evaluate whether the state adequately justified the technical and legal basis for doing so.

The EPA notes that certain concepts included in an attachment to the March 2018 memorandum require unique consideration, and these ideas do not constitute agency guidance with respect to transport obligations for the 2015 ozone NAAQS. Attachment A to the March 2018 memorandum identified a ''Preliminary List of Potential Flexibilities'' that could potentially inform SIP development.[20] However, EPA made clear in that Attachment that the list of ideas were not suggestions endorsed by the Agency but rather ''comments provided in various forums'' on which EPA sought ''feedback from interested stakeholders.'' [21] Further, Attachment A stated, ''EPA is not at this time making any determination that the ideas discussed below are consistent with the requirements of the CAA, nor are we specifically recommending that states use these approaches.'' [22] Attachment A to the March 2018 memorandum, therefore, does not constitute agency guidance, but was intended to generate further discussion around potential approaches to addressing ozone transport among interested stakeholders. To the extent states sought to develop or rely on these ideas in support of their SIP submittals, EPA will thoroughly review the technical and legal justifications for doing so.

The remainder of this section describes the EPA's proposed framework with respect to analytic year, definition of nonattainment and maintenance receptors, selection of contribution threshold, and multifactor control strategy assessment.

1. Selection of Analytic Year

In general, the states and the EPA must implement the interstate transport provision in a manner ''consistent with the provisions of [title I of the CAA.]'' CAA section 110(a)(2)(D)(i). This requires, among other things, that these obligations are addressed consistently with the timeframes for downwind areas to meet their CAA obligations. With respect to ozone NAAQS, under CAA section 181(a), this means obligations must be addressed ''as expeditiously as practicable'' and no later than the schedule of attainment dates provided in CAA section 181(a)(1).[23] Several D.C. Circuit court decisions address the issue of the relevant analytic year for the purposes of evaluating ozone transport air-quality problems. On September 13, 2019, the D.C. Circuit issued a decision in *Wisconsin* v. *EPA,* remanding the CSAPR Update to the extent that it failed to require upwind states to eliminate their significant contribution by the next applicable attainment date by which downwind states must come into compliance with the NAAQS, as established under CAA section 181(a). 938 F.3d at 313.

On May 19, 2020, the D.C. Circuit issued a decision in *Maryland* v. *EPA* that cited the *Wisconsin* decision in holding that the EPA must assess the impact of interstate transport on air quality at the next downwind attainment date, including Marginal area attainment dates, in evaluating the basis for the EPA's denial of a petition under CAA section 126(b). *Maryland* v. *EPA,* 958 F.3d 1185, 1203–04 (D.C. Cir. 2020). The court noted that ''section 126(b) incorporates the Good Neighbor Provision,'' and, therefore, ''EPA must find a violation [of section 126] if an upwind source will significantly contribute to downwind nonattainment at the *next downwind attainment deadline.* Therefore, the agency must evaluate downwind air quality at that deadline, not at some later date.'' *Id.* at 1204 (emphasis added). The EPA interprets the court's holding in *Maryland* as requiring the states and the Agency, under the good neighbor provision, to assess downwind air quality as expeditiously as practicable and no later than the next applicable attainment date,[24] which is now the Moderate area attainment date under CAA section 181 for ozone nonattainment. The Moderate area attainment date for the 2015 8-hour ozone NAAQS is August 3, 2024.[25] The EPA believes that 2023 is now the appropriate year for analysis of interstate transport obligations for the 2015 8-hour ozone NAAQS, because the 2023 ozone season is the last relevant ozone season during which achieved emissions reductions in linked upwind states could assist downwind states with meeting the August 3, 2024, Moderate area attainment date for the 2015 8-hour ozone NAAQS.

The EPA recognizes that the attainment date for nonattainment areas classified as Marginal for the 2015 8-

[20] March 2018 memorandum, Attachment A.

[21] *Id.* at A–1.

[22] *Id.*

[23] For attainment dates for the 2015 8-hour ozone NAAQS, refer to CAA section 181(a), 40 CFR 51.1303, and Additional Air Quality Designations for the 2015 Ozone National Ambient Air Quality Standards, 83 FR 25776 (June 4, 2018, effective Aug. 3, 2018).

[24] We note that the court in *Maryland* did not have occasion to evaluate circumstances in which the EPA may determine that an upwind linkage to a downwind air quality problem exists at steps 1 and 2 of the interstate transport framework by a particular attainment date, but for reasons of impossibility or profound uncertainty the Agency is unable to mandate upwind pollution controls by that date. *See Wisconsin,* 938 F.3d at 320. The D.C. Circuit noted in *Wisconsin* that upon a sufficient showing, these circumstances may warrant flexibility in effectuating the purpose of the interstate transport provision.

[25] *See* CAA section 181(a); 40 CFR 51.1303; Additional Air Quality Designations for the 2015 Ozone National Ambient Air Quality Standards, 83 FR 25776 (June 4, 2018, effective Aug. 3, 2018).

hour ozone NAAQS was August 3, 2021. Under the *Maryland* holding, any necessary emissions reductions to satisfy interstate transport obligations should have been implemented by no later than this date. At the time of the statutory deadline to submit interstate transport SIPs (October 1, 2018), many states relied upon the EPA modeling of the year 2023, and no state provided an alternative analysis using a 2021 analytic year (or the prior 2020 ozone season). However, the EPA must act on SIP submittals using the information available at the time it takes such action. In this circumstance, the EPA does not believe it would be appropriate to evaluate states' obligations under CAA section 110(a)(2)(D)(i)(I) as of an attainment date that is wholly in the past, because the Agency interprets the interstate transport provision as forward looking. *See* 86 FR at 23074; *see also Wisconsin,* 938 F.3d at 322. Consequently, in this proposal the EPA will use the analytical year of 2023 to evaluate each state's CAA section 110(a)(2)(D)(i)(I) SIP submission with respect to the 2015 8-hour ozone NAAQS.

2. Step 1 of the 4-Step Interstate Transport Framework

In Step 1, the EPA identifies monitoring sites that are projected to have problems attaining and/or maintaining the NAAQS in the 2023 analytic year. Where the EPA's analysis shows that a site does not fall under the definition of a nonattainment or maintenance receptor, that site is excluded from further analysis under the EPA's 4-step interstate transport framework. For sites that are identified as a nonattainment or maintenance receptor in 2023, we proceed to the next step of our 4-step interstate transport framework by identifying the upwind state's contribution to those receptors.

The EPA's approach to identifying ozone nonattainment and maintenance receptors in this action is consistent with the approach used in previous transport rulemakings. The EPA's approach gives independent consideration to both the ''contribute significantly to nonattainment'' and the ''interfere with maintenance'' prongs of CAA section 110(a)(2)(D)(i)(I), consistent with the D.C. Circuit's direction in *North Carolina* v. *EPA*.[26]

For the purpose of this proposal, the EPA identifies nonattainment receptors as those monitoring sites that are projected to have average design values that exceed the NAAQS and that are also measuring nonattainment based on the most recent monitored design values. This approach is consistent with prior transport rulemakings, such as the CSAPR Update, where the EPA defined nonattainment receptors as those areas that both currently measure nonattainment and that the EPA projects will be in nonattainment in the future analytic year (*i.e.,* 2023).[27]

In addition, in this proposal, the EPA identifies a receptor to be a ''maintenance'' receptor for purposes of defining interference with maintenance, consistent with the method used in the CSAPR and upheld by the D.C. Circuit in *EME Homer City Generation, L.P.* v. *EPA,* 795 F.3d 118, 136 (D.C. Cir. 2015).[28] Specifically, the EPA identified maintenance receptors as those receptors that would have difficulty maintaining the relevant NAAQS in a scenario that takes into account historical variability in air quality at that receptor. The variability in air quality was determined by evaluating the ''maximum'' future design value at each receptor based on a projection of the maximum measured design value over the relevant period. EPA interprets the projected maximum future design value to be a potential future air quality outcome consistent with the meteorology that yielded maximum measured concentrations in the ambient data set analyzed for that receptor (*i.e.,* ozone conducive meteorology). EPA also recognizes that previously experienced meteorological conditions (*e.g.,* dominant wind direction, temperatures, air mass patterns) promoting ozone formation that led to maximum concentrations in the measured data may reoccur in the future. The maximum design value gives a reasonable projection of future air quality at the receptor under a scenario in which such conditions do, in fact, reoccur. The projected maximum design value is used to identify upwind emissions that, under those circumstances, could interfere with the downwind area's ability to maintain the NAAQS.

Recognizing that nonattainment receptors are also, by definition, maintenance receptors, the EPA often uses the term ''maintenance-only'' to refer to those receptors that are not nonattainment receptors. Consistent with the concepts for maintenance receptors, as described above, the EPA identifies ''maintenance-only'' receptors as those monitoring sites that have projected average design values above the level of the applicable NAAQS, but that are not currently measuring nonattainment based on the most recent official design values. In addition, those monitoring sites with projected average design values below the NAAQS, but with projected maximum design values above the NAAQS are also identified as ''maintenance only'' receptors, even if they are currently measuring nonattainment based on the most recent official design values.

3. Step 2 of the 4-Step Interstate Transport Framework

In Step 2 the EPA quantifies the contribution of each upwind state to each receptor in the 2023 analytic year. The contribution metric used in Step 2 is defined as the average impact from each state to each receptor on the days with the highest ozone concentrations at the receptor based on the 2023 modeling. If a state's contribution value does not equal or exceed the threshold of 1 percent of the NAAQS (*i.e.,* 0.70 ppb for the 2015 8-hour ozone NAAQS), the upwind state is not ''linked'' to a downwind air quality problem, and the EPA, therefore, concludes that the state does not significantly contribute to nonattainment or interfere with maintenance of the NAAQS in the downwind states. However, if a state's contribution equals or exceeds the 1 percent threshold, the state's emissions are further evaluated in Step 3, considering both air quality and cost as part of a multi-factor analysis, to determine what, if any, emissions might be deemed ''significant'' and, thus, must be eliminated under CAA section 110(a)(2)(D)(i)(I). The EPA is proposing to rely in the first instance on the 1 percent threshold for the purpose of evaluating a state's contribution to nonattainment or maintenance of the 2015 8-hour ozone NAAQS (*i.e.,* 0.70 ppb) at downwind receptors. This is consistent with the Step 2 approach that the EPA applied in CSAPR for the 1997 ozone NAAQS, which has subsequently been applied in the CSAPR Update when evaluating interstate transport obligations for the 2008 ozone NAAQS. The EPA continues to find 1 percent to be an appropriate threshold. For ozone, as the EPA found in the Clean Air Interstate Rule (CAIR), CSAPR, and CSAPR Update, a portion of the nonattainment problems from

[26] *See North Carolina* v. *EPA, 531 F.3d at 910–11 (holding that the EPA must give ''independent significance'' to each prong of CAA section 110(a)(2)(D)(i)(I)).*

[27] *See* 81 FR 74504 (October 26, 2016). This same concept, relying on both current monitoring data and modeling to define nonattainment receptor, was also applied in CAIR. *See* 70 FR at 25241, 25249 (January 14, 2005); *see also North Carolina,* 531 F.3d at 913–14 (affirming as reasonable EPA's approach to defining nonattainment in CAIR).

[28] *See* 76 FR 48208 (August 8, 2011). CSAPR Update and Revised CSAPR Update also used this approach. See 81 FR 74504 (October 26, 2016) and 86 FR 23054 (April 30, 2021).

anthropogenic sources in the U.S. results from the combined impact of relatively small contributions from many upwind states, along with contributions from in-state sources and, in some cases, substantially larger contributions from a subset of particular upwind states. The EPA's analysis shows that much of the ozone transport problem being analyzed in this proposed rule is still the result of the collective impacts of contributions from many upwind states. Therefore, application of a consistent contribution threshold is necessary to identify those upwind states that should have responsibility for addressing their contribution to the downwind nonattainment and maintenance problems to which they collectively contribute. Continuing to use 1 percent of the NAAQS as the screening metric to evaluate collective contribution from many upwind states also allows the EPA (and states) to apply a consistent framework to evaluate interstate emissions transport under the interstate transport provision from one NAAQS to the next. *See* 81 FR at 74518. *See also* 86 FR at 23085 (reviewing and explaining rationale from CSAPR, 76 FR at 48237–38, for selection of 1 percent threshold).

The EPA's August 2018 memorandum recognized that in certain circumstances, a state may be able to establish that an alternative contribution threshold of 1 ppb is justifiable. Where a state relies on this alternative threshold, and where that state determined that it was not linked at Step 2 using the alternative threshold, the EPA will evaluate whether the state provided a technically sound assessment of the appropriateness of using this alternative threshold based on the facts and circumstances underlying its application in the particular SIP submission.

4. Step 3 of the 4-Step Interstate Transport Framework

Consistent with the EPA's longstanding approach to eliminating significant contribution or interference with maintenance, at Step 3, states linked at Steps 1 and 2 are generally expected to prepare a multifactor assessment of potential emissions controls. The EPA's analysis at Step 3 in prior Federal actions addressing interstate transport requirements has primarily focused on an evaluation of cost-effectiveness of potential emissions controls (on a marginal cost-per-ton basis), the total emissions reductions that may be achieved by requiring such controls (if applied across all linked upwind states), and an evaluation of the air quality impacts such emissions reductions would have on the downwind receptors to which a state is linked; other factors may potentially be relevant if adequately supported. In general, where the EPA's or alternative air quality and contribution modeling establishes that a state is linked at Steps 1 and 2, it will be insufficient at Step 3 for a state merely to point to its existing rules requiring control measures as a basis for approval. In general, the emissions-reducing effects of all existing emissions control requirements are already reflected in the air quality results of the modeling for steps 1 and 2. If the state is shown to still be linked to one or more downwind receptor(s), states must provide a well-documented evaluation determining whether their emissions constitute significant contribution or interference with maintenance by evaluating additional available control opportunities by preparing a multifactor assessment. While the EPA has not prescribed a particular method for this assessment, the EPA expects states at a minimum to present a sufficient technical evaluation. This would typically include information on emissions sources, applicable control technologies, emissions reductions, costs, cost effectiveness, and downwind air quality impacts of the estimated reductions, before concluding that no additional emissions controls should be required.[29]

5. Step 4 of the 4-Step Interstate Transport Framework

At Step 4, states (or the EPA) develop permanent and federally enforceable control strategies to achieve the emissions reductions determined to be necessary at Step 3 to eliminate significant contribution to nonattainment or interference with maintenance of the NAAQS. For a state linked at Steps 1 and 2 to rely on an emissions control measure at Step 3 to address its interstate transport obligations, that measure must be included in the state's SIP so that it is permanent and federally enforceable. *See* CAA section 110(a)(2)(D) (''Each such [SIP] shall . . . contain adequate provisions . . . .''). *See also* CAA 110(a)(2)(A); *Committee for a Better Arvin* v. *U.S. E.P.A.,* 786 F.3d 1169, 1175–76 (9th Cir. 2015) (holding that measures relied on by state to meet CAA requirements must be included in the SIP).

[29] As examples of general approaches for how such an analysis could be conducted for their sources, states could look to the CSAPR Update, 81 FR 74504, 74539–51; CSAPR, 76 FR 48208, 48246–63; CAIR, 70 FR 25162, 25195–229; or the NO_X SIP Call, 63 FR 57356, 57399–405. *See also* Revised CSAPR Update, 86 FR 23054, 23086–23116. Consistently across these rulemakings, the EPA has developed emissions inventories, analyzed different levels of control stringency at different cost thresholds, and assessed resulting downwind air quality improvements.

II. Iowa's SIP Submission Addressing Interstate Transport of Air Pollution for the 2015 8-Hour Ozone NAAQS

On November 30, 2018, Iowa submitted a SIP revision addressing the CAA section 110(a)(2)(D)(i)(I) interstate transport requirements for the 2015 ozone NAAQS. Iowa chose to rely on the results of EPA's 2023 modeling, as presented in the March 2018 memorandum, to identify downwind nonattainment and maintenance receptors that may be impacted by emissions from sources in Iowa. Based on Iowa's review of the EPA's modeling assumptions and model performance evaluation, Iowa determined that EPA's future year projections were appropriate for purposes of evaluating Iowa's impact on attainment and maintenance of the 2015 ozone NAAQS in other states.

Iowa relied on EPA's 2023 modeling to conclude that the state does not contribute significantly to nonattainment or interfere with maintenance of the 2015 ozone NAAQS in any other state. Iowa referred to the analytic information in EPA's August 2018 memorandum as a basis to use a 1 ppb contribution threshold when evaluating the state's contribution to downwind receptors at Step 2 of EPA's four-step interstate transport framework. Using EPA's modeling, Iowa identified that it is projected to contribute below 1 percent of the 2015 ozone NAAQS (*i.e.,* less than 0.70 ppb) to all but two downwind receptors: The nonattainment receptor in Milwaukee County, Wisconsin (Milwaukee receptor), and the maintenance-only receptor in Allegan County, Michigan (Allegan receptor). Iowa's contribution to these two receptors was projected to be between 1 percent and 1 ppb. Iowa concluded that 1 ppb is an appropriate contribution threshold to apply with respect to the 2015 ozone NAAQS and that Iowa's emissions therefore do not contribute to nonattainment or maintenance problems at either receptor.

Iowa noted that its 2023 modeled contribution to the Milwaukee receptor is 0.79 ppb, and its 2023 modeled contribution to the Allegan receptor is 0.77 ppb. Iowa further noted that application of the 1 ppb threshold captures 83 percent of the upwind contribution captured at the 1 percent threshold at the Milwaukee receptor and 94 percent of the upwind contribution

captured at the 1 percent threshold at the Allegan receptor. Based on these data, Iowa concluded that the 1 ppb threshold is therefore appropriate because it captures a ''substantial portion'' of the transported contribution from upwind states when compared to the 1 percent threshold at both receptors. Because the state's impact on both receptors was projected to be below the 1 ppb threshold, the state concluded that its emissions will not contribute significantly to nonattainment or interfere with maintenance of the 2015 ozone NAAQS in downwind states.

III. Withdrawal of Prior Proposed Approval

On March 2, 2020, EPA proposed to approve portions of the infrastructure SIP submission received from the State of Iowa on November 30, 2018, in accordance with section 110(a)(1) of the CAA. In the document, the EPA proposed to approve the portion of the SIP addressing section 110(a)(2)(D)(i)(I)—significant contribution to nonattainment (prong 1), and interference with maintenance of the NAAQS (prong 2). This proposal relied on results of EPA's 2023 modeling, as presented in the March 2018 memorandum explained above, as well as the State's argument for using the 1 ppb threshold in Step 2 rather than the 1 percent threshold. The action received two adverse comments. In this document, we are withdrawing our March 2, 2020, proposed approval. We are now reproposing approval based on new modeling and a new rationale for approval based on that new modeling, as discussed in section IV.

IV. EPA Evaluation of Iowa's Submission

Iowa's SIP submission relies on analysis of the year 2023 (using a 2011 base year platform) to conclude that the State does not significantly contribute to nonattainment or interfere with maintenance of the 2015 ozone NAAQS in any other state. As explained in section I of this proposal, the EPA has conducted an updated analysis for the 2023 analytical year (using a 2016 base year platform) and proposes to rely primarily on this updated modeling to evaluate Iowa's transport SIP submission.

As described in section I, the EPA performed air quality modeling to project design values and contributions for 2023 using the 2016v2 emissions platform. The design values and contributions were examined to determine if Iowa contributes at or above the threshold of 1 percent of the 2015 ozone NAAQS (0.70 ppb) to any downwind nonattainment or maintenance receptor. The data [30] indicate that the highest contribution in 2023 from Iowa to a downwind nonattainment and maintenance receptors is 0.64 ppb and 0.58 ppb, respectively.[31]

Based on the EPA's updated modeling, it is no longer necessary to evaluate Iowa's use of 1 ppb as a contribution threshold at Step 2. The state is projected to contribute less than a 1 percent threshold. While the EPA does not, in this action, approve of the state's application of the 1 ppb threshold, based on the state's contributions of less than 1 percent to projected downwind nonattainment or maintenance receptors, the state's use of this alternative threshold is inconsequential to our action on this SIP submittal. The EPA is proposing to approve Iowa's SIP submission on the basis of the use of a 1 percent contribution threshold at Step 2.

The EPA's evaluation of measured and monitored data and contribution values in 2023, as discussed in this section, is consistent with conclusions made by Iowa that emissions from sources in the State will not contribute to nonattainment or interfere with maintenance of the 2015 ozone NAAQS in any other state.

V. Proposed Action

The EPA is proposing to approve a portion of Iowa's November 30, 2018, SIP submittal as meeting the interstate transport requirements of CAA section 110(a)(2)(D)(i)(I) for the 2015 ozone NAAQS. The EPA has addressed the remaining infrastructure elements included in Iowa's submittal in a separate action. Additionally, this proposal withdraws and replaces EPA's March 2, 2020, proposed rule as discussed in section III.

The Agency is soliciting public comments on its proposed approval of the CAA section 110(a)(2)(D)(i)(I) element of Iowa's infrastructure SIP submittal for the 2015 ozone NAAQS. Significant comments will be considered before taking final action. Interested parties may participate in the Federal rulemaking procedure by submitting written comments to this proposed rule by following the instructions listed in the **ADDRESSES** section of this **Federal Register**.

VI. Statutory and Executive Order Reviews

Under the Clean Air Act, the Administrator is required to approve a SIP submission that complies with the provisions of the Act and applicable Federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, EPA's role is to approve state choices, provided that they meet the criteria of the CAA. Accordingly, this proposed action merely approves state law as meeting Federal requirements and does not impose additional requirements beyond those imposed by state law. For that reason, this proposed action:

- Is not a significant regulatory action subject to review by the Office of Management and Budget under Executive Orders 12866 (58 FR 51735, October 4, 1993) and 13563 (76 FR 3821, January 21, 2011);
- Does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*);
- Is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*);
- Does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Pub. L. 104–4);
- Does not have federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- Is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- Is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001);
- Is not subject to requirements of section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the Clean Air Act; and
- Does not provide EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible

[30] Design values and contributions at individual monitoring sites nationwide are provide in the file: *2016v2_DVs_state_contributions.xlsx* which is included in docket ID No. EPA–HQ–OAR–2021–0663.

[31] The EPA's analysis indicates that Iowa will have a 0.64 ppb impact at the projected nonattainment receptor in Kenosha County, Wisconsin (Site ID 550590019), which has a 2023 projected average design value of 72.8 ppb and a 2023 projected maximum design value of 73.7 ppb. The EPA's analysis further indicates that Iowa will have a 0.58 ppb impact at a projected maintenance receptor in Cook County, Illinois (Site ID 170310032), which has which has a projected 2023 average design value of 69.8 ppb and a 2023 projected maximum design value of 72.4 ppb.

methods, under Executive Order 12898 (59 FR 7629, February 16, 1994).

In addition, the SIP is not approved to apply on any Indian reservation land or in any other area where EPA or an Indian tribe has demonstrated that a tribe has jurisdiction. In those areas of Indian country, the rule does not have tribal implications and will not impose substantial direct costs on tribal governments or preempt tribal law as specified by Executive Order 13175 (65 FR 67249, November 9, 2000).

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Intergovernmental relations, Nitrogen dioxide, Ozone, Reporting and recordkeeping requirements, Volatile organic compounds.

Authority: 42 U.S.C. 7401 *et seq.*

Dated: February 1, 2022.

Meghan A. McCollister,

Regional Administrator, Region 7.

Part 52 of chapter I, title 40 of the Code of Federal Regulations is proposed to be amended as follows:

PART 52—APPROVAL AND PROMULGATION OF IMPLEMENTATION PLANS

■ 1. The authority citation for part 52 continues to read as follows:

Authority: 42 U.S.C. 7401 *et seq.*

Subpart Q—Iowa

■ 2. In § 52.820, the table in paragraph (e) is amended by adding an entry for ''(55)'' in numerical order to read as follows:

§ 52.820 Identification of plan.

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EPA-APPROVED IOWA NONREGULATORY PROVISIONS

Name of non regulatory SIP provision	Applicable geographic or nonattainment area	State submittal date	EPA approval date	Explanation
*	*	*	*	*
(55) Transport SIP for the 2015 Ozone Standard.	Statewide	11/30/2018	[Date of publication of the final rule in the [**Federal Register**], [**Federal Register** citation of the final rule].	[EPA–R07–OAR–2021–0870; EPA–HQ–OAR–2021–0663; FRL–9468–01–R7]. This transport SIP shows that Iowa does not significantly contribute to ozone nonattainment or maintenance in any other state. This submittal is approved as meeting the requirements of Clean Air Act section 110(a)(2)(D)(i)(I).

[FR Doc. 2022–02935 Filed 2–18–22; 8:45 am]

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ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

EPA–R02–OAR–2021–0673; EPA–HQ–OAR–2021–0663; FRL–9424–01–R2]

Air Plan Disapproval; New York and New Jersey; Interstate Transport of Air Pollution for the 2015 8-Hour Ozone National Ambient Air Quality Standards

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: Pursuant to the Federal Clean Air Act (CAA or the Act), the Environmental Protection Agency (EPA) is proposing to disapprove State Implementation Plan (SIP) submittals from New York and New Jersey regarding interstate transport for the 2015 8-hour ozone national ambient air quality standards (NAAQS). This provision requires that each state's SIP contain adequate provisions to prohibit emissions from within the state from significantly contributing to nonattainment or interfering with maintenance of the NAAQS in other states. The ''good neighbor'' or ''interstate transport'' requirement is part of the broader set of ''infrastructure'' requirements, which are designed to ensure that the structural components of each state's air quality management program are adequate to meet the state's responsibilities under the CAA. This disapproval, if finalized, will establish a 2-year deadline for the EPA to promulgate a Federal Implementation Plan (FIP) to address the relevant interstate transport requirements, unless the EPA approves a subsequent SIP submittal that meets these requirements. Disapproval does not start a mandatory sanctions clock.

DATES: *Comments:* Written comments must be received on or before April 25, 2022.

ADDRESSES: You may send comments, identified as Docket No. EPA–R02–OAR–2021–0673 to the Federal eRulemaking Portal at *https://www.regulations.gov* following the online instructions for submitting comments.

Instructions: All submissions received must include the Docket ID No. for this rulemaking. Comments received may be posted without change to *https://www.regulations.gov,* including any personal information provided. For detailed instructions on sending comments and additional information on the rulemaking process, see the ''Public Participation'' heading of the **SUPPLEMENTARY INFORMATION** section of this document. Out of an abundance of caution for members of the public and our staff, the EPA Docket Center and Reading Room are open to the public by appointment only to reduce the risk of transmitting COVID–19. Our Docket Center staff also continues to provide remote customer service via email, phone, and webform. For further information on the EPA Docket Center services and the current status, please visit us online at *https://www.epa.gov/dockets.*

FOR FURTHER INFORMATION CONTACT: Kenneth Fradkin, Environmental Protection Agency, Region 2, 290 Broadway, 25th Floor, New York, NY 10007–1866, (212) 637–3702, or by email at *Fradkin.Kenneth@epa.gov.*

SUPPLEMENTARY INFORMATION: *Public Participation:* Submit your comments,

identified by Docket ID No. EPA–R02–OAR–2021–0673 at *https://www.regulations.gov.* Once submitted, comments cannot be edited or removed from the docket. The EPA may publish any comment received to its public docket. Do not submit to the EPA's docket at *https://www.regulations.gov* any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. The EPA will generally not consider comments or comment contents located outside of the primary submission (*i.e.,* on the web, cloud, or other file sharing system).

There are two dockets supporting this action, EPA–R02–OAR–2021–0673 and EPA–HQ–OAR–2021–0663. Docket No. EPA–R02–OAR–2021–0673 contains information specific to New York and New Jersey, including the notice of proposed rulemaking. Docket No. EPA–HQ–OAR–2021–0663 contains additional modeling files, emissions inventory files, technical support documents, and other relevant supporting documentation regarding interstate transport of emissions for the 2015 8-hour ozone NAAQS which are being used to support this action. All comments regarding information in either of these dockets are to be made in Docket No. EPA–R02–OAR–2021–0673. For additional submission methods, please contact Kenneth Fradkin, Environmental Protection Agency, 290 Broadway, 25th Floor, New York, 10007–1866, (212) 637–3702, or by email at *Fradkin.Kenneth@epa.gov.* For the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit *https://www.epa.gov/dockets/commenting-epa-dockets.* Due to public health concerns related to COVID–19, the EPA Docket Center and Reading Room are open to the public by appointment only. Our Docket Center staff also continues to provide remote customer service via email, phone, and webform. For further information and updates on the EPA Docket Center services, please visit us online at *https://www.epa.gov/dockets.*

The EPA continues to carefully and continuously monitor information from the Centers for Disease Control and Prevention (CDC), local area health departments, and our Federal partners so that we can respond rapidly as conditions change regarding COVID–19.

The index to the docket for this action, Docket No. EPA–R02–OAR–2021–0673, is available electronically at *www.regulations.gov.* While all documents in the docket are listed in the index, some information may not be publicly available due to docket file size restrictions or content (*e.g.,* CBI).

Throughout this document, ''we,'' ''us,'' and ''our'' means the EPA.

I. Background

A. Description of Statutory Background

On October 1, 2015, the EPA promulgated a revision to the ozone NAAQS (2015 8-hour ozone NAAQS), lowering the level of both the primary and secondary standards to 0.070 parts per million (ppm).[1] Section 110(a)(1) of the CAA requires states to submit, within 3 years after promulgation of a new or revised standard, SIP submissions meeting the applicable requirements of section 110(a)(2).[2] One of these applicable requirements is found in CAA section 110(a)(2)(D)(i)(I), otherwise known as the ''interstate transport'' or ''good neighbor'' provision, which generally requires SIPs to contain adequate provisions to prohibit in-state emissions activities from having certain adverse air quality effects on other states due to interstate transport of pollution. There are two so-called ''prongs'' within CAA section 110(a)(2)(D)(i)(I). A SIP for a new or revised NAAQS must contain adequate provisions prohibiting any source or other type of emissions activity within the state from emitting air pollutants in amounts that will significantly contribute to nonattainment of the NAAQS in another state (prong 1) or interfere with maintenance of the NAAQS in another state (prong 2). The EPA and states must give independent significance to prong 1 and prong 2 when evaluating downwind air quality problems under CAA section 110(a)(2)(D)(i)(I).[3]

B. Description of the EPA's Four Step Interstate Transport Regulatory Process

The EPA is using the 4-step interstate transport framework (or 4-step framework) to evaluate the states' SIP submittals addressing the interstate transport provision for the 2015 8-hour ozone NAAQS. The EPA has addressed the interstate transport requirements of CAA section 110(a)(2)(D)(i)(I) with respect to prior ozone NAAQS in several regional regulatory actions, including the Cross-State Air Pollution Rule (CSAPR), which addressed interstate transport with respect to the 1997 ozone NAAQS as well as the 1997 and 2006 fine particulate matter standards,[4] and the Cross-State Air Pollution Rule Update (CSAPR Update) [5] and the Revised CSAPR Update, both of which addressed the 2008 ozone NAAQS.[6]

Through the development and implementation of the CSAPR rulemakings and prior regional rulemakings pursuant to the interstate transport provision,[7] the EPA, working in partnership with states, developed the following 4-step interstate transport framework to evaluate a State's obligations to eliminate interstate transport emissions under the interstate transport provision for the ozone NAAQS: (1) Identify monitoring sites that are projected to have problems attaining and/or maintaining the NAAQS (*i.e.,* nonattainment and/or maintenance receptors); (2) identify states that impact those air quality problems in other (*i.e.,* downwind) states sufficiently such that the states are considered ''linked'' and therefore warrant further review and analysis; (3) identify the emissions reductions necessary (if any), applying a multifactor analysis, to eliminate each linked upwind state's significant contribution to nonattainment or interference with maintenance of the NAAQS at the locations identified in Step 1; and (4) adopt permanent and

[1] National Ambient Air Quality Standards for Ozone, Final Rule, 80 FR 65292 (October 26, 2015). Although the level of the standard is specified in the units of ppm, ozone concentrations are also described in parts per billion (ppb). For example, 0.070 ppm is equivalent to 70 ppb.

[2] SIP revisions that are intended to meet the applicable requirements of section 110(a)(1) and (2) of the CAA are often referred to as infrastructure SIPs and the applicable elements under section 110(a)(2) are referred to as infrastructure requirements.

[3] *See North Carolina* v. *EPA,* 531 F.3d 896, 909–11 (D.C. Cir. 2008).

[4] *See* Federal Implementation Plans: Interstate Transport of Fine Particulate Matter and Ozone and Correction of SIP Approvals, 76 FR 48208 (Aug. 8, 2011).

[5] Cross-State Air Pollution Rule Update for the 2008 Ozone NAAQS, 81 FR 74504 (Oct. 26, 2016).

[6] In 2019, the D.C. Circuit Court of Appeals remanded the CSAPR Update to the extent it failed to require upwind states to eliminate their significant contribution by the next applicable attainment date by which downwind states must come into compliance with the NAAQS, as established under CAA section 181(a). *Wisconsin* v. *EPA,* 938 F.3d 303, 313 (D.C. Cir. 2019). The Revised CSAPR Update for the 2008 Ozone NAAQS, 86 FR 23054 (April 30, 2021), responded to the remand of the CSAPR Update in *Wisconsin* and the vacatur of a separate rule, the ''CSAPR Close-Out,'' 83 FR 65878 (December 21, 2018), in *New York* v. *EPA,* 781 F. App'x. 4 (D.C. Cir. 2019).

[7] In addition to the CSAPR rulemakings, other regional rulemakings addressing ozone transport include the ''NO_X SIP Call,'' 63 FR 57356 (October 27, 1998), and the ''Clean Air Interstate Rule'' (CAIR), 70 FR 25162 (May 12, 2005).

enforceable measures needed to achieve those emissions reductions.

C. Background on the EPA's Ozone Transport Modeling Information

In general, the EPA has performed nationwide air quality modeling to project ozone design values which are used in combination with measured data to identify nonattainment and maintenance receptors. To quantify the contribution of emissions from specific upwind states on 2023 ozone design values for the identified downwind nonattainment and maintenance receptors, the EPA performed nationwide, state-level ozone source apportionment modeling for 2023. The source apportionment modeling provided contributions to ozone at receptors from precursor emissions of anthropogenic nitrogen oxides (NO_X) and volatile organic compounds (VOCs) in individual upwind states.

The EPA has released several documents containing projected ozone design values, contributions, and information relevant to evaluating interstate transport with respect to the 2015 8-hour ozone NAAQS. First, on January 6, 2017, the EPA published a notice of data availability (NODA) in which we requested comment on preliminary interstate ozone transport data including projected ozone design values and interstate contributions for 2023 using a 2011 base year platform.[8] In the NODA, the EPA used the year 2023 as the analytic year for this preliminary modeling because that year aligns with the expected attainment year for Moderate ozone nonattainment areas for the 2015 8-hour ozone NAAQS.[9] On October 27, 2017, we released a memorandum (October 2017 memorandum) containing updated modeling data for 2023, which incorporated changes made in response to comments on the NODA, and noted that the modeling may be useful for states developing SIPs to address interstate transport obligations for the 2008 ozone NAAQS.[10] On March 27, 2018, we issued a memorandum (March 2018 memorandum) noting that the same 2023 modeling data released in the October 2017 memorandum could also be useful for identifying potential downwind air quality problems with respect to the 2015 8-hour ozone NAAQS at Step 1 of the 4-step interstate transport framework.[11] The March 2018 memorandum also included the then newly available contribution modeling data for 2023 to assist states in evaluating their impact on potential downwind air quality problems for the 2015 8-hour ozone NAAQS under Step 2 of the 4-step interstate transport framework.[12] The EPA subsequently issued two more memoranda in August and October 2018, providing additional information to states developing interstate transport SIP submissions for the 2015 8-hour ozone NAAQS concerning, respectively, potential contribution thresholds that may be appropriate to apply in Step 2 of the 4-step interstate transport framework, and considerations for identifying downwind areas that may have problems maintaining the standard at Step 1 of the 4-step interstate transport framework.[13]

Since the release of the modeling data shared in the March 2018 memorandum, the EPA performed updated modeling using a 2016-based emissions modeling platform (*i.e.,* 2016v1). This emissions platform was developed under the EPA/Multi-Jurisdictional Organization (MJO)/state collaborative project.[14] This collaborative project was a multi-year joint effort by the EPA, MJOs, and states to develop a new, more recent emissions platform for use by the EPA and states in regulatory modeling as an improvement over the dated 2011-based platform that the EPA had used to project ozone design values and contribution data provided in the 2017 and 2018 memoranda. The EPA used the 2016v1 emissions to project ozone Design values and contributions for 2023. On October 30, 2020, in the Notice of Proposed Rulemaking for the Revised CSAPR Update, the EPA released and accepted public comment on 2023 modeling that used the 2016v1 emissions platform.[15] Although the Revised CSPAR Update addressed transport for the 2008 ozone NAAQS, the projected design values and contributions from the 2016v1 platform are also useful for identifying downwind ozone problems and linkages with respect to the 2015 ozone NAAQS.[16]

Following the final Revised CSAPR Update, the EPA made further updates to the 2016 emissions platform to include mobile emissions from the EPA's Motor Vehicle Emission Simulator MOVES3 model[17] and updated emissions projections for electric generating units (EGUs) that reflect the emissions reductions from the Revised CSAPR Update, recent information on plant closures, and other sector trends. The construct of the updated emissions platform, 2016v2, is described in the Emissions Modeling technical support document (TSD) for this proposed rule. The EPA performed air quality modeling of the 2016v2 emissions using the most recent public release version of the Comprehensive Air Quality Model with Extensions (CAMx) photochemical modeling, version 7.10.[18] The EPA now proposes to primarily rely on modeling based on the updated and newly available 2016v2 emissions platform in evaluating these submissions with respect to Steps 1 and 2 of the 4-step interstate transport framework. By using the updated modeling results, the EPA is using the most current and technically appropriate information for this proposed rulemaking. Section III of this notice and the Air Quality Modeling TSD for 2015 Ozone NAAQS Transport SIP Proposed Actions included in Docket ID No. EPA–HQ–OAR–2021–0663 for this proposal contains additional detail on the EPA's 2016v2 modeling. In this notice, the EPA is

[8] *See* Notice of Availability of the Environmental Protection Agency's Preliminary Interstate Ozone Transport Modeling Data for the 2015 8-hour Ozone National Ambient Air Quality Standard (NAAQS), 82 FR 1733 (January 6, 2017).

[9] 82 FR at 1735.

[10] *See* Information on the Interstate Transport State Implementation Plan Submissions for the 2008 Ozone National Ambient Air Quality Standards under Clean Air Act Section 110(a)(2)(D)(i)(I), October 27, 2017, available in Docket ID No. EPA–HQ–OAR–2021–0663.

[11] *See* Information on the Interstate Transport State Implementation Plan Submissions for the 2015 Ozone National Ambient Air Quality Standards under Clean Air Act Section 110(a)(2)(D)(i)(I), March 27, 2018 (''March 2018 memorandum''), available in Docket ID No. EPA–HQ–OAR–2021–0663.

[12] The March 2018 memorandum, however, provided, ''While the information in this memorandum and the associated air quality analysis data could be used to inform the development of these SIPs, the information is not a final determination regarding states' obligations under the good neighbor provision. Any such determination would be made through notice-and-comment rulemaking.''

[13] *See* Analysis of Contribution Thresholds for Use in Clean Air Act Section 110(a)(2)(D)(i)(I) Interstate Transport State Implementation Plan Submissions for the 2015 Ozone National Ambient Air Quality Standards, August 31, 2018) (''August 2018 memorandum''), and Considerations for Identifying Maintenance Receptors for Use in Clean Air Act Section 110(a)(2)(D)(i)(I) Interstate Transport State Implementation Plan Submissions for the 2015 Ozone National Ambient Air Quality Standards, October 19, 2018, available in Docket ID No. EPA–HQ–OAR–2021–0663.

[14] The results of this modeling, as well as the underlying modeling files, are included in Docket ID No. EPA–HQ–OAR–2021–0663.

[15] *See* 85 FR 68964, 68981.

[16] See the Air Quality Modeling Technical Support Document for the Final Revised Cross-State Air Pollution Rule Update included in the Headquarters Docket ID No. EPA–HQ–OAR–2021–0663.

[17] Additional details and documentation related to the MOVES3 model can be found at *https://www.epa.gov/moves/latest-version-motor-vehicle-emission-simulator-moves.*

[18] Ramboll Environment and Health, January 2021, *www.camx.com.*

accepting public comment on this updated 2023 modeling, which uses a 2016v2 emissions platform. Comments on the EPA's air quality modeling should be submitted in the Regional docket for this action, Docket No. EPA–R02–OAR–2021–0673. Comments are not being accepted in Docket EPA–HQ–OAR–2021–0663.

In some cases, states may rely on the results of EPA modeling and/or alternative modeling performed by states or Multi-Jurisdictional Organizations (MJOs) to evaluate downwind air quality problems and contributions as part of their submissions. New York and New Jersey have done so, and so we have evaluated the use of that alternative modeling in Section III.

D. The EPA's Approach to Evaluating Interstate Transport SIPs for the 2015 8-Hour Ozone NAAQS

The EPA proposes to apply a consistent set of policy judgments across all states for purposes of evaluating interstate transport obligations and the approvability of interstate transport SIP submittals for the 2015 8-hour ozone NAAQS. These policy judgments reflect consistency with relevant case law and past agency practice as reflected in the CSAPR and related rulemakings. Nationwide consistency in approach is particularly important in the context of interstate ozone transport, which is a regional-scale pollution problem involving many smaller contributors. Effective policy solutions to the problem of interstate ozone transport going back to the NO_X SIP Call have necessitated the application of a uniform framework of policy judgments in order to ensure an ''efficient and equitable'' approach. *See EME Homer City Generation, LP* v. *EPA,* 572 U.S. 489, 519 (2014).

In the March, August, and October 2018 memoranda, the EPA recognized that states may be able to establish alternative approaches to addressing their interstate transport obligations for the 2015 8-hour ozone NAAQS that vary from a nationally uniform framework. The EPA emphasized in these memoranda, however, that such alternative approaches must be technically justified and appropriate in light of the facts and circumstances of each particular state's submittal. In general, the EPA continues to believe that deviation from a nationally consistent approach to ozone transport must be substantially justified and have a well-documented technical basis that is consistent with relevant case law. Where states submitted SIPs that rely on any such potential ''flexibilities'' as may have been identified or suggested in the past, the EPA will evaluate whether the state adequately justified the technical and legal basis for doing so.

The EPA notes that certain concepts included in an attachment to the March 2018 memorandum require unique consideration, and these ideas do not constitute agency guidance with respect to transport obligations for the 2015 ozone NAAQS. Attachment A to the March 2018 memorandum identified a ''Preliminary List of Potential Flexibilities'' that could potentially inform SIP development.[19] However, the EPA made clear in that Attachment that the list of ideas were not suggestions endorsed by the Agency but rather ''comments provided in various forums'' on which the EPA sought ''feedback from interested stakeholders.'' [20] Further, Attachment A stated, ''EPA is not at this time making any determination that the ideas discussed below are consistent with the requirements of the CAA, nor are we specifically recommending that states use these approaches.'' [21] Attachment A to the March 2018 memorandum, therefore, does not constitute agency guidance, but was intended to generate further discussion around potential approaches to addressing ozone transport among interested stakeholders. To the extent states sought to develop or rely on these ideas in support of their SIP submittals, the EPA will thoroughly review the technical and legal justifications for doing so.

The remainder of this section describes the EPA's proposed framework with respect to analytic year, definition of nonattainment and maintenance receptors, selection of contribution threshold, and multifactor control strategy assessment.

1. Selection of Analytic Year

In general, the states and the EPA must implement the interstate transport provision in a manner ''consistent with the provisions of [title I of the CAA.]'' CAA section 110(a)(2)(D)(i). This requires, among other things, that these obligations are addressed consistently with the timeframes for downwind areas to meet their CAA obligations. With respect to ozone NAAQS, under CAA section 181(a), this means obligations must be addressed ''as expeditiously as practicable'' and no later than the schedule of attainment dates provided in CAA section 181(a)(1).[22] Several D.C. Circuit court decisions address the issue of the relevant analytic year for the purposes of evaluating ozone transport air-quality problems. On September 13, 2019, the D.C. Circuit issued a decision in *Wisconsin* v. *EPA,* remanding the CSAPR Update to the extent that it failed to require upwind states to eliminate their significant contribution by the next applicable attainment date by which downwind states must come into compliance with the NAAQS, as established under CAA section 181(a). 938 F.3d at 313.

On May 19, 2020, the D.C. Circuit issued a decision in *Maryland* v. *EPA* that cited the *Wisconsin* decision in holding that the EPA must assess the impact of interstate transport on air quality at the next downwind attainment date, including Marginal area attainment dates, in evaluating the basis for the EPA's denial of a petition under CAA section 126(b). *Maryland* v. *EPA,* 958 F.3d 1185, 1203–04 (D.C. Cir. 2020). The court noted that ''section 126(b) incorporates the Good Neighbor Provision,'' and, therefore, ''EPA must find a violation [of section 126] if an upwind source will significantly contribute to downwind nonattainment at the *next downwind attainment deadline.* Therefore, the agency must evaluate downwind air quality at that deadline, not at some later date.'' *Id.* at 1204 (emphasis added). The EPA interprets the court's holding in *Maryland* as requiring the states and the Agency, under the good neighbor provision, to assess downwind air quality as expeditiously as practicable and no later than the next applicable attainment date,[23] which is now the Moderate area attainment date under CAA section 181 for ozone nonattainment. The Moderate area attainment date for the 2015 8-hour ozone NAAQS is August 3, 2024.[24] The EPA believes that 2023 is now the appropriate year for analysis of interstate transport obligations for the

[19] March 2018 memorandum, Attachment A.

[20] *Id.* at A–1.

[21] *Id.*

[22] For attainment dates for the 2015 8-hour ozone NAAQS, refer to CAA section 181(a), 40 CFR 51.1303, and Additional Air Quality Designations for the 2015 Ozone National Ambient Air Quality Standards, 83 FR 25776 (June 4, 2018, effective Aug. 3, 2018).

[23] We note that the court in *Maryland* did not have occasion to evaluate circumstances in which the EPA may determine that an upwind linkage to a downwind air quality problem exists at Steps 1 and 2 of the interstate transport framework by a particular attainment date, but for reasons of impossibility or profound uncertainty the Agency is unable to mandate upwind pollution controls by that date. *See Wisconsin,* 938 F.3d at 320. The D.C. Circuit noted in *Wisconsin* that upon a sufficient showing, these circumstances may warrant flexibility in effectuating the purpose of the interstate transport provision.

[24] *See* CAA section 181(a); 40 CFR 51.1303; Additional Air Quality Designations for the 2015 Ozone National Ambient Air Quality Standards, 83 FR 25776 (June 4, 2018, effective Aug. 3, 2018).

2015 8-hour ozone NAAQS because the 2023 ozone season is the last relevant ozone season during which achieved emissions reductions in linked upwind states could assist downwind states with meeting the August 3, 2024 Moderate area attainment date for the 2015 8-hour ozone NAAQS.

The EPA recognizes that the attainment date for nonattainment areas classified as Marginal for the 2015 8-hour ozone NAAQS was August 3, 2021. Under the *Maryland* holding, any necessary emissions reductions to satisfy interstate transport obligations should have been implemented by no later than this date. At the time of the statutory deadline to submit interstate transport SIPs (October 1, 2018), many states relied upon the EPA modeling of the year 2023, and no state provided an alternative analysis using a 2021 analytic year (or the prior 2020 ozone season). However, the EPA must act on SIP submittals using the information available at the time it takes such action. In this circumstance, the EPA does not believe it would be appropriate to evaluate states' obligations under CAA section 110(a)(2)(D)(i)(I) as of an attainment date that is wholly in the past, because the Agency interprets the interstate transport provision as forward looking. *See* 86 FR at 23074; *see also Wisconsin,* 938 F.3d at 322. Consequently, in this proposal the EPA will use the analytical year of 2023 to evaluate each state's CAA section 110(a)(2)(D)(i)(I) SIP submission with respect to the 2015 8-hour ozone NAAQS.

2. Step 1 of the 4-Step Interstate Transport Framework

In Step 1, the EPA identifies monitoring sites that are projected to have problems attaining and/or maintaining the NAAQS in the 2023 analytic year. Where the EPA's analysis shows that a site does not fall under the definition of a nonattainment or maintenance receptor, that site is excluded from further analysis under the EPA's 4-step interstate transport framework. For sites that are identified as a nonattainment or maintenance receptor in 2023, we proceed to the next Step of our 4-step interstate transport framework by identifying the upwind state's contribution to those receptors.

The EPA's approach to identifying ozone nonattainment and maintenance receptors in this action is consistent with the approach used in previous transport rulemakings. The EPA's approach gives independent consideration to both the ''contribute significantly to nonattainment'' and the ''interfere with maintenance'' prongs of CAA section 110(a)(2)(D)(i)(I), consistent with the D.C. Circuit's direction in *North Carolina* v. *EPA.*[25]

For the purpose of this proposal, the EPA identifies nonattainment receptors as those monitoring sites that are projected to have average design values that exceed the NAAQS and that are also measuring nonattainment based on the most recent monitored design values. This approach is consistent with prior transport rulemakings, such as the CSAPR Update, where the EPA defined nonattainment receptors as those areas that both currently measure nonattainment and that the EPA projects will be in nonattainment in the future analytic year (*i.e.,* 2023).[26]

In addition, in this proposal, the EPA identifies a receptor to be a ''maintenance'' receptor for purposes of defining interference with maintenance, consistent with the method used in the CSAPR and upheld by the D.C. Circuit in *EME Homer City Generation, L.P.* v. *EPA,* 795 F.3d 118, 136 (D.C. Cir. 2015).[27] Specifically, the EPA identified maintenance receptors as those receptors that would have difficulty maintaining the relevant NAAQS in a scenario that takes into account historical variability in air quality at that receptor. The variability in air quality was determined by evaluating the ''maximum'' future design value at each receptor based on a projection of the maximum measured design value over the relevant period. The EPA interprets the projected maximum future design value to be a potential future air quality outcome consistent with the meteorology that yielded maximum measured concentrations in the ambient data set analyzed for that receptor (*i.e.,* ozone conducive meteorology). The EPA also recognizes that previously experienced meteorological conditions (*e.g.,* dominant wind direction, temperatures, air mass patterns) promoting ozone formation that led to maximum concentrations in the measured data may reoccur in the future. The maximum design value gives a reasonable projection of future air quality at the receptor under a scenario in which such conditions do, in fact, reoccur. The projected maximum design value is used to identify upwind emissions that, under those circumstances, could interfere with the downwind area's ability to maintain the NAAQS.

Recognizing that nonattainment receptors are also, by definition, maintenance receptors, the EPA often uses the term ''maintenance-only'' to refer to those receptors that are not nonattainment receptors. Consistent with the concepts for maintenance receptors, as described above, the EPA identifies ''maintenance-only'' receptors as those monitoring sites that have projected average design values above the level of the applicable NAAQS, but that are not currently measuring nonattainment based on the most recent official design values. In addition, those monitoring sites with projected average design values below the NAAQS, but with projected maximum design values above the NAAQS are also identified as ''maintenance only'' receptors, even if they are currently measuring nonattainment based on the most recent official design values.

3. Step 2 of the 4-Step Interstate Transport Framework

In Step 2 the EPA quantifies the contribution of each upwind state to each receptor in the 2023 analytic year. The contribution metric used in Step 2 is defined as the average impact from each state to each receptor on the days with the highest ozone concentrations at the receptor based on the 2023 modeling. If a state's contribution value does not equal or exceed the threshold of 1 percent of the NAAQS (*i.e.,* 0.70 ppb for the 2015 8-hour ozone NAAQS), the upwind state is not ''linked'' to a downwind air quality problem, and the EPA, therefore, concludes that the state does not significantly contribute to nonattainment or interfere with maintenance of the NAAQS in the downwind states. However, if a state's contribution equals or exceeds the 1 percent threshold, the state's emissions are further evaluated in Step 3, considering both air quality and cost as part of a multi-factor analysis, to determine what, if any, emissions might be deemed ''significant'' and, thus, must be eliminated under CAA section 110(a)(2)(D)(i)(I). The EPA is proposing to rely in the first instance on the 1 percent threshold for the purpose of evaluating a state's contribution to nonattainment or maintenance of the 2015 8-hour ozone NAAQS (*i.e.,* 0.70 ppb) at downwind receptors. This is consistent with the Step 2 approach that

[25] *See North Carolina* v. *EPA,* 531 F.3d 896, 910–11 (D.C. Cir. 2008) (holding that the EPA must give ''independent significance'' to each prong of CAA section 110(a)(2)(D)(i)(I)).

[26] *See* 81 FR 74504 (October 26, 2016). This same concept, relying on both current monitoring data and modeling to define nonattainment receptor, was also applied in CAIR. *See* 70 FR at 25241, 25249 (January 14, 2005); *see also North Carolina,* 531 F.3d at 913–14 (affirming as reasonable EPA's approach to defining nonattainment in CAIR).

[27] *See* 76 FR 48208 (August 8, 2011). CSAPR Update and Revised CSAPR Update also used this approach. See 81 FR 74504 (October 26, 2016) and 86 FR 23054 (April 30, 2021).

the EPA applied in CSAPR for the 1997 ozone NAAQS, which has subsequently been applied in the CSAPR Update when evaluating interstate transport obligations for the 2008 ozone NAAQS. The EPA continues to find 1 percent to be an appropriate threshold. For ozone, as the EPA found in the Clean Air Interstate Rule (CAIR), CSAPR, and CSAPR Update, a portion of the nonattainment problems from anthropogenic sources in the U.S. results from the combined impact of relatively small contributions from many upwind states, along with contributions from in-state sources and, in some cases, substantially larger contributions from a subset of particular upwind states. The EPA's analysis shows that much of the ozone transport problem being analyzed in this proposed rule is still the result of the collective impacts of contributions from many upwind states. Therefore, application of a consistent contribution threshold is necessary to identify those upwind states that should have responsibility for addressing their contribution to the downwind nonattainment and maintenance problems to which they collectively contribute. Continuing to use 1 percent of the NAAQS as the screening metric to evaluate collective contribution from many upwind states also allows the EPA (and states) to apply a consistent framework to evaluate interstate emissions transport under the interstate transport provision from one NAAQS to the next. *See* 81 FR at 74518. *See also* 86 FR at 23085 (reviewing and explaining rationale from CSAPR, 76 FR at 48237–38, for selection of the 1 percent threshold).

The EPA's August 2018 memorandum recognized that in certain circumstances, a state may be able to establish that an alternative contribution threshold of 1 ppb is justifiable. Where a state relies on this alternative threshold, and where that state determined that it was not linked at Step 2 using the alternative threshold, the EPA will evaluate whether the state provided a technically sound assessment of the appropriateness of using this alternative threshold based on the facts and circumstances underlying its application in the particular SIP submission.

4. Step 3 of the 4-Step Interstate Transport Framework

Consistent with the EPA's longstanding approach to eliminating significant contribution or interference with maintenance, at Step 3, states linked at Steps 1 and 2 are generally expected to prepare a multifactor assessment of potential emissions controls. The EPA's analysis at Step 3 in prior Federal actions addressing interstate transport requirements has primarily focused on an evaluation of cost-effectiveness of potential emissions controls (on a marginal cost-per-ton basis), the total emissions reductions that may be achieved by requiring such controls (if applied across all linked upwind states), and an evaluation of the air quality impacts such emissions reductions would have on the downwind receptors to which a state is linked; other factors may potentially be relevant if adequately supported. In general, where the EPA's or alternative air quality and contribution modeling establishes that a state is linked at Steps 1 and 2, it will be insufficient at Step 3 for a state merely to point to its existing rules requiring control measures as a basis for approval. In general, the emissions-reducing effects of all existing emissions control requirements are already reflected in the air quality results of the modeling for Steps 1 and 2. If the state is shown to still be linked to one or more downwind receptor(s), states must provide a well-documented evaluation determining whether their emissions constitute significant contribution or interference with maintenance by evaluating additional available control opportunities by preparing a multifactor assessment. While the EPA has not prescribed a particular method for this assessment, the EPA expects states at a minimum to present a sufficient technical evaluation. This would typically include information on emissions sources, applicable control technologies, emissions reductions, costs, cost effectiveness, and downwind air quality impacts of the estimated reductions, before concluding that no additional emissions controls should be required.[28]

5. Step 4 of the 4-Step Interstate Transport Framework

At Step 4, states (or the EPA) develop permanent and federally enforceable control strategies to achieve the emissions reductions determined to be necessary at Step 3 to eliminate significant contribution to nonattainment or interference with maintenance of the NAAQS. For a state linked at Steps 1 and 2 to rely on an emissions control measure at Step 3 to address its interstate transport obligations, that measure must be included in the state's SIP so that it is permanent and federally enforceable. *See* CAA section 110(a)(2)(D) (''Each such [SIP] shall . . . contain adequate provisions. . . .''). *See also* CAA 110(a)(2)(A); *Committee for a Better Arvin* v. *U.S. E.P.A.,* 786 F.3d 1169, 1175–76 (9th Cir. 2015) (holding that measures relied on by state to meet CAA requirements must be included in the SIP).

II. SIP Submissions Addressing Interstate Transport of Air Pollution for the 2015 8-Hour Ozone NAAQS

A. New York

On September 25, 2018, the New York State Department of Environmental Conservation (NYSDEC) submitted a revision to its SIP addressing the infrastructure SIP requirements for the 2015 ozone NAAQS, including the interstate transport obligations pursuant to the good neighbor provision. The EPA finalized approval of elements of New York's submittal, except for the portion of the SIP submittal addressing the good neighbor provision, on June 23, 2021.[29]

In New York's SIP submittal, the State followed the 4-step framework for determining its good neighbor obligations. New York provided air quality modeling (Steps 1 and 2) and a list of already-enacted and ''on-the-way'' state air pollution control measures to conclude that New York satisfied its good neighbor obligations for the 2015 ozone NAAQS (under Step 3). The State did not reach Step 4 of the framework as it concluded that the State did not need additional emissions reductions at Step 3 to eliminate significant contribution.

At Step 1, New York identified nonattainment and maintenance receptors based on the EPA's 2023 projection modeling shared in the EPA March 2018 memorandum. New York identified nonattainment receptors at the Stratford (receptor ID 90013007) and Westport (receptor ID 90019003) monitoring sites in Fairfield County, in Connecticut, in 2023 and identified maintenance receptors at the Greenwich (receptor ID 900190017) and New Haven (receptor ID 90099002) monitoring sites in Fairfield and New Haven Counties, in Connecticut, respectively, in 2023.

[28] As examples of general approaches for how such an analysis could be conducted for their sources, states could look to the CSAPR Update, 81 FR 74504, 74539–51; CSAPR, 76 FR 48208, 48246–63; CAIR, 70 FR 25162, 25195–229; or the NO_X SIP Call, 63 FR 57356, 57399–405. *See also* Revised CSAPR Update, 86 FR 23054, 23086–23116. Consistently across these rulemakings, the EPA has developed emissions inventories, analyzed different levels of control stringency at different cost thresholds, and assessed resulting downwind air quality improvements.

[29] 86 FR 35034 (July 1, 2021).

New York submitted state-by-state contribution modeling for 2023 based on CAMx modeling performed by the Maryland Department of the Environment (MDE). New York coupled 2023 Community Multiscale Air Quality (CMAQ) projection modeling with MDE's CAMx contribution modeling to show that New York was linked to the Stratford, Westport, Greenwich, and New Haven monitoring sites in Connecticut using a 1 percent of the NAAQS threshold (0.70 ppb for the 2015 8-hour ozone NAAQS). Based on this information, New York conceded that it was linked to four Connecticut receptors at Step 2.

New York asserted that, despite its contributions, the State had met its good neighbor obligations through the implementation and enforcement of stringent NO_X and VOC control measures that the State asserted go well beyond the EPA presumptive cost threshold in the CSAPR Update for highly cost-effective emissions reductions, and through the ongoing adoption and revision of additional control measures to further ensure the reduction of ozone in both New York State and downwind areas.

New York cited its Reasonably Available Control Technology (RACT) rules, which have been required on major sources of NO_X throughout the State since 1995, and have been periodically updated (in 1999, 2004, and 2010) to keep up with advances in control technology. New York indicated that the State's RACT presumptive emissions limits and facility-specific emissions limits are based on inflation-adjusted control cost valued at $5,500 per ton of NO_X reduced, which New York indicated was consistent with typical costs to install selective catalytic reduction (SCR) units, and above the EPA's $1,400 per ton control cost threshold used for the CSAPR Update that reflected the cost of turning on already-existing SCR controls at EGUs. New York also noted that the State's EGU NO_X emissions rates are among the lowest in the country, as reflected in its CSAPR Update ozone season emissions budget, which is lower than all other states with the exception of New Jersey and Maryland. New York indicated that its $5,500 RACT control cost also applied to non-EGUs.

New York also stated in the September 2018 submittal that it was in various stages of the rulemaking process for additional measures to further control NO_X and VOC emissions from EGU, non-EGU, area, and mobile sources.

Additional NO_X reductions would be obtained, according to the State, through the following regulatory updates that were, at the time of the submittal, under development by the State: Establishing new NO_X limits for simple cycle combustion turbines (or ''peaking'' [30] units), which New York noted would benefit the New York Metropolitan Area on hot summer days that are most conducive to ozone formation (*i.e.,* high electric demand days) (6 NYCRR Part 227); establishing NO_X limits for distributed generation sources (6 NYCRR Part 222); applying NO_X RACT requirements to municipal waste combustors (6 NYCRR Part 219); requiring new installation, recordkeeping and reporting requirements for aftermarket catalytic converters (Part 218); and the adoption of the CSAPR Update trading program (6 NYCRR Part 243).

New York's submittal also indicates that it will further control area-source VOC emissions through updates to State VOC RACT regulations for Oil and Gas (6 NYCRR Part 203); Architectural and Industrial Maintenance Coatings (6 NYCRR Part 205); Solvent Metal Cleaning Processes (Part 226); Motor Vehicle and Mobile Equipment Refinishing and Recoating Operations (6 NYCRR Part 228, Subpart 228–1); Gasoline Dispensing Sites and Transport Vehicles (6 NYCRR Part 230); and Consumer Products (6 NYCRR Part 235).

In its submittal to the EPA, New York commented that the State's mobile on-road sector alone (without considering other state emissions) ''significantly impacted downwind monitors, with 2023 contributions as high as 4.64 ppb at the Greenwich, Connecticut monitor'' (receptor ID 90010017), based on CAMx modeling conducted by the University of Maryland.[31]

New York stated that the on-road sector is controlled through the inspection/maintenance and anti-idling standards in 6 NYCRR Part 217, ''Motor Vehicle Emissions,'' and the implementation of the California Low-Emission Vehicle Standards under 6 NYCRR Part 218, ''Emission Standards for Motor Vehicles and Motor Vehicle Engines.''

B. New Jersey

On May 13, 2019, New Jersey submitted a SIP revision that addressed infrastructure SIP requirements for the 2015 ozone NAAQS,[32] including its interstate transport obligations pursuant to the good neighbor provision. Except for the portion of the SIP submittal addressing the good neighbor provision for the 2015 8-hour ozone NAAQS, the EPA will act on the portion of the submittal addressing the remaining infrastructure SIP elements for the 2015 8-hour ozone NAAQS in a separate action at a later date.

In New Jersey's SIP submittal, the State followed the 4-step framework based on a 2023 analytic year for evaluating its significant contribution. New Jersey provided air quality modeling (Steps 1 and 2), and a list of its adopted and implemented air pollution control measures, to demonstrate that it satisfied its transport obligations for the 2015 8-hour ozone NAAQS (under Step 3). The State did not reach Step 4 of the framework as it concluded that the State did not need additional emissions reductions to eliminate significant contribution at Step 3.

At Step 1, New Jersey identified areas that the State potentially significantly contributed to in other states based on 2023 regional modeling [33] conducted under the coordination of the Ozone Transport Commission (OTC) modeling Committee. The OTC modeling used CAMx modeling, version 6.3, to project emissions to 2023 (using a 2011 base year). OTC used the Eastern Regional Technical Advisory Committee (ERTAC) EGU Projection Tool to estimate emissions from the EGU sector.

New Jersey identified four nonattainment and four maintenance receptors in the OTC/MANE–VU 12 kilometer (km) modeling domain utilized in the OTC modeling.[34] The nonattainment receptors were located at the Westport [35] (receptor ID 90019003) monitoring site in Fairfield County, in Connecticut; the Susan Wagner (receptor ID 360850067) and Babylon (receptor ID 36103002) monitoring sites in Richmond and Suffolk Counties,

[30] Simple cycle combustion turbines, also known as peaking units (peakers), run to meet electric load during periods of peak electricity demand. These peakers typically operate during periods of elevated temperature when electric demand increases. Older simple cycle combustion turbines sometimes have no or only low-level NO_X emission controls.

[31] See Appendix C of New York's submittal.

[32] The SIP submittal also addressed the good neighbor provision for the 2008 ozone NAAQS, which EPA acted on in a separate action. The EPA proposed disapproval on October 26, 2021, at 86 FR 60602 (November 3, 2021).

[33] OTC modeling included in Appendix I of NJ submittal.

[34] OTC modeling generally followed the EPA approach for identifying nonattainment and maintenance receptors. Monitors in the Eastern U.S. were projected as nonattainment (an average design value greater than or equal to 71 ppb) or maintenance only (a maximum design value greater than or equal to 71 ppb) of the 2015 Ozone NAAQS in 2023. The EPA's approach for identifying ozone nonattainment and maintenance receptors is defined in section I.D.2.

[35] Referenced as the Sherwood Island site in the New Jersey submittal.

respectively, in New York; and the Edgewood (receptor ID 240251001) monitoring site in Harford County, Maryland. The maintenance receptors were located at the Greenwich (receptor ID 90010017), New Haven (receptor ID 90099002) and Stratford (receptor ID 90013007) monitoring sites in Fairfield, New Haven, and Fairfield Counties, in Connecticut, respectively; and the Queens College (receptor ID 360810124) in Queens County, in New York.

New Jersey relied on the OTC 2023 regional modeling using CAMx to determine the nonattainment and maintenance sites that it was linked to as a potential significant contributor based on its contribution above 1 percent of the NAAQS (0.70 ppb for the 2015 8-hour ozone NAAQS). The OTC modeling showed that New Jersey was linked above the 1 percent threshold to four receptors, including two nonattainment receptors at the Westport monitoring site in Connecticut and at the Susan Wagner and Babylon monitoring sites in New York. Additionally, the modeling demonstrated that New Jersey was linked to maintenance receptors located at the Greenwich, New Haven, and Stratford monitoring sites in Connecticut and the Babylon monitoring site in New York.

New Jersey asserted that considering air quality, emissions reductions from the State's adopted measures, and the cost effectiveness of those measures, no additional emissions reductions from New Jersey are necessary to address its good neighbor obligations to downwind nonattainment and maintenance areas.

New Jersey noted that from 1990 to 2017, annual NO_X and VOC emissions in New Jersey have each decreased approximately 77 percent. From 2011 to 2017, annual NO_X and VOC emissions decreased 31 percent and 17 percent, respectively. From 2002 to 2017, for point sources in the State, NO_X was reduced by 81 percent and VOC emissions were reduced by 63 percent. New Jersey also noted that its point source emissions represent only about 8 percent of New Jersey's total NO_X emissions, while mobile sources were approximately 43 percent.

New Jersey stated that there has been a significant decreasing trend in 8-hour ozone design values in New Jersey, approximately 40 percent from 1988 to 2017 and 13 percent from 2011 to 2017. According to the State, the significant decrease demonstrates the impact of New Jersey control measures.

New Jersey provided a list [36] of its post-2002 adopted NO_X and VOC control measures, including estimated cost-effectiveness (dollar ($) per ton of NO_X reduced or VOC reduced), and the EPA's approval date [37] for many of the measures. New Jersey notes that the State has met Reasonably Available Control Measures (RACM) and RACT requirements and has gone beyond RACM/RACT by adopting control measures more stringent than Federal rules and rules adopted by other states. Furthermore, New Jersey states that its rules are implemented statewide and not limited to the Northern New Jersey-New York-Connecticut ozone nonattainment area. New Jersey highlighted several of its control measures:

—Power generation rules, including requirements for high electric demand days (HEDD) when ozone concentrations are highest. New Jersey estimates NO_X emissions reduction during HEDD to be over 60 tons from a baseline without the rules;
—municipal waste combustor controls;
—stationary reciprocating internal combustion engines (RICE) controls (as low as 37 kW) used for distributed generation or demand response (DG/DR), which the State noted are often operated on hot summer days that often coincide with high ozone days;
—mobile source controls including New Jersey's Low Emission Vehicle Program (NJ LEV) (based on California's program), which requires a certain percentage of Zero Emission Vehicles in the State, as well as its rules for vehicle idling and heavy-duty vehicle inspection and maintenance using on-board diagnostics technology; and
—various NO_X and VOC measures to address the EPA Control Techniques Guideline (CTG), NO_X Alternative Control Technique (ACT) categories, and updated controls at gasoline dispensing facilities including California Air Resources Board (CARB) enhanced vapor recovery certified Phase I vapor recovery systems, dripless nozzles, and low permeation hoses.

New Jersey also asserts that it has implemented its control measures before the attainment deadlines for downwind nonattainment areas. New Jersey provides the example of the New Jersey power generation and HEDD rules being effective in 2015 or earlier. New Jersey further asserts that, when determining New Jersey's significant contribution to interstate transport, the State should not be penalized for its early adoption of appropriate and effective rules in advance of and more stringent than other states.

In the State's evaluation of cost effectiveness, New Jersey claims that it has gone beyond the measures of other nearby and upwind states and previously established the EPA cost effectiveness thresholds. The State notes that the cost-effectiveness values associated with many of its adopted rules are several times greater than the threshold of $1,400 per ton NO_X reduced set for upwind states in the CSAPR Update. For example, according to the State's list of existing NO_X and VOC control measures [38] included in its SIP submittal, the control measures for turbines operating during HEDD had a cost effectiveness of $44,000 per ton NO_X reduced; the control measures for oil-fired boilers operating during HEDD had a cost effectiveness up to $18,000 per ton NO_X reduced; and, for natural gas compressor engines and turbines rules adopted in 2017, the rules have a cost effectiveness up to $26,020 per ton NO_X reduced, with SCR costs up to $18,983 per ton NO_X reduced.

III. EPA Evaluation

The EPA is proposing to find that the New York SIP revision submitted on September 25, 2018, and the New Jersey SIP revision submitted on May 13, 2019, do not meet the States' obligations with respect to prohibiting emissions that contribute significantly to nonattainment or interfere with maintenance of the 2015 8-hour ozone NAAQS in any other state based on the EPA's evaluation of the SIP submissions using the 4-step interstate transport framework. Both States conceded that they are linked to nonattainment and maintenance receptors in another state at Steps 1 and 2 of the 4-step interstate transport framework-which is confirmed by the EPA's most recent modeling. However, neither state conducted an adequate Step 3 analysis to conclude that either state's SIP contains adequate measures to prohibit significant contribution or interference with maintenance. Both states conclude that their existing (or certain ''on-the-way'') control measures are already sufficient to meet good neighbor obligations. However, for this argument to provide

[36] Table 5 of the SIP submittal.

[37] Control measures that the State identified as ''USEPA Approval Pending'' have been approved by the EPA as follows: The EPA finalized approval of the CTGs for Fiberglass Boat Manufacturing Materials; Industrial Cleaning Solvents; Miscellaneous Metal and Plastic Parts Coatings; Paper, Film, and Foil Coatings; and Natural Gas Engines and Turbines. 83 FR 50506 (October 9, 2018). The EPA approved revisions to New Jersey's I/M rules. 83 FR 21174 (May 9, 2018). The EPA finalized approval of New Jersey's Vapor Recovery 2017 Stage I and Refueling. 85 FR 36748 (June 18, 2020).

[38] Table 5 of the New Jersey SIP submittal.

support for their conclusions, an analysis as to why no additional control measures are justified is needed. Neither state provided such an analysis in their respective SIP submittals. Therefore, as discussed below, the EPA proposes to disapprove both New York's and New Jersey's good neighbor SIP submittals for the 2015 8-hour ozone NAAQS.

A. New York

1. Results of the EPA's Step 1 and Step 2 Modeling and Findings for New York

As described in section I, the EPA performed air quality modeling using the 2016v2 emissions platform to project design values and contributions for 2023. These data were examined to determine if New York contributes at or above the threshold of 1 percent of the 2015 8-hour ozone NAAQS (0.70 ppb) to any downwind nonattainment or maintenance receptor. As shown in Table 1, the data [39] indicate that in 2023, emissions from New York contribute greater than 1 percent of the standard to nonattainment or maintenance-only receptors in Stratford, Connecticut (receptor ID 90013007), Westport, Connecticut (receptor ID 90019003), Greenwich, Connecticut (receptor ID 90010017), New Haven, Connecticut (receptor ID 90099002), and Bucks County, Pennsylvania (receptor ID 480170012).[40]

TABLE 1—NEW YORK LINKAGE RESULTS BASED ON EPA UPDATED 2023 MODELING

Receptor ID	Location	Nonattainment/maintenance	2023 Average design value (ppb)	2023 Maximum design value (ppb)	New York contribution (ppb)
90013007	Stratford, CT	Nonattainment	74.2	75.1	13.56
90019003	Westport, CT	Nonattainment	76.1	76.4	14.36
90010017	Greenwich, CT	Nonattainment	73.0	73.7	16.81
90099002	New Haven, CT	Nonattainment	71.8	73.9	11.54
420170012	Bucks County, PA	Maintenance	70.7	72.2	1.80

2. Evaluation of Information Provided by New York Regarding Step 1

At Step 1 of the 4-step interstate transport framework, New York relied on EPA modeling released in the March 2018 memorandum to identify nonattainment and maintenance receptors in 2023. As described previously in this notice, the EPA has recently updated this modeling using the most current and technically appropriate information. The EPA proposes to primarily rely on the EPA's most recent modeling to identify nonattainment and maintenance receptors in 2023.

3. Evaluation of Information Provided by New York Regarding Step 2

As described previously in this notice, the EPA has recently updated modeling to identify upwind state contributions to nonattainment and/or maintenance receptors in 2023. In this proposal, the EPA relies on the Agency's most recently available modeling to identify upwind contributions and ''linkages'' to downwind air quality problems in 2023 using a threshold of 1 percent of the NAAQS. As shown in Table 1, updated EPA modeling identifies New York's maximum contribution to a downwind nonattainment or maintenance receptor is greater than 1 percent of the standard (*i.e.,* 0.70 ppb).

Although New York relied on alternative modeling to the EPA's modeling at Step 2, New York acknowledged in its SIP submission that it is linked above 1 percent of the NAAQS to one or more downwind receptors in 2023. Because the alternative modeling relied on by the State also demonstrates that a linkage exists between the State and downwind receptors at Step 2, the EPA need not conduct a comparative assessment of the alternative modeling; the State concedes that it is linked. New York's analysis corroborates the conclusion in the EPA's most recent modeling. The EPA therefore will proceed to Step 3 of the 4-step interstate transport framework to assess arguments the State presented as to why, despite this linkage, the State should not be considered to significantly contribute to nonattainment or interfere with maintenance of the NAAQS in any other state such that additional emissions reductions are required.

4. Evaluation of Information Provided Regarding Step 3

At Step 3 of the 4-step interstate transport framework, a state's emissions are further evaluated, in light of multiple factors, including air quality and cost considerations, to determine what, if any, emissions significantly contribute to nonattainment or interfere with maintenance and, thus, must be eliminated under CAA section 110(a)(2)(D)(i)(I). To effectively evaluate which emissions in the state should be deemed ''significant'' and therefore prohibited, states generally should prepare an accounting of sources and other emissions activity and assess potential, additional emissions reduction opportunities and resulting downwind air quality improvements. The EPA has consistently applied this general approach (*i.e.,* Step 3 of the 4-step interstate transport framework) when identifying emissions contributions that the Agency has determined to be ''significant'' (or interfere with maintenance) in each of its prior Federal, regional ozone transport rulemakings, and this interpretation of the statute has been upheld by the Supreme Court. *See EME Homer City,* 572 U.S. 489, 519 (2014). While the EPA has not directed states that they must conduct a Step 3 analysis in precisely the manner the EPA has done in its prior regional transport rulemakings, state implementation plans addressing the obligations in CAA section 110(a)(2)(D)(i)(I) must prohibit ''any source or other type of emissions activity within the State'' from emitting air pollutants which will contribute significantly to downwind air quality problems. Thus, states must complete something similar to the EPA's analysis (or an alternative approach to defining ''significance'' that comports with the

[39] Design values and contributions at individual monitoring sites nationwide are provide in the file: 2023_DVs_Contributions_2016v2_Platform which is included in docket ID No. EPA–HQ–OAR–2021–0663.

[40] These modeling results are consistent with the results of a prior round of 2023 modeling using the 2016v1 emissions platform which became available to the public in the fall of 2020 in the Revised CSAPR Update, as noted in Section I.

statute's objectives) to determine whether and to what degree emissions from a state should be ''prohibited'' to eliminate emissions that will ''contribute significantly to nonattainment in, or interfere with maintenance of,'' the NAAQS in any other state. New York did not conduct such an analysis in its SIP submission. Although in this action we are relying on the results of the EPA's most recent air quality modeling results for receptor identification and contributions, we will continue to evaluate the analysis provided by New York at Step 3 to assess whether the analysis provided adequately supports New York's conclusion, and whether the analysis could apply to the linkages identified by the EPA at Step 2.

As previously indicated in section II.A, New York asserted in its September 2018 submittal that, despite its contributions, the State had met its good neighbor obligations through the implementation and enforcement of stringent NO_X and VOC control measures that go beyond the EPA's presumptive cost threshold in the CSAPR Update for highly cost-effective emissions reductions, and through the ongoing adoption and revision of additional control measures to further ensure the reduction of ozone in both New York and downwind areas.

The State's submittal, however, did not contain a demonstration at Step 3 that the State was adequately controlling its emissions for the purposes of the good neighbor provision, particularly because New York conceded in its submission that its emissions were linked to Connecticut receptors at Steps 1 and 2. The SIP submittal pointed to the State's existing NO_X RACT measures with presumptive and facility-specific emission limits based on $5,500 per ton of NO_X reduced, as well as ongoing state and local emission control efforts to conclude New York is already meeting its good neighbor obligations for the 2015 8-hour ozone NAAQS. However, the State's submittal does not include a sufficient examination or a technical justification that could support the conclusion that the State has no further good neighbor obligations for the 2015 8-hour ozone NAAQS. In particular, the State did not conduct in its submittal an analysis of potential additional emissions-reduction measures to further reduce its impact on the identified downwind receptors. For example, New York did not include in its submission an accounting of sources and other emissions activity in the State along with an analysis of potential NO_X emissions control technologies, their associated costs, estimated emissions reductions, and downwind air quality improvements. Nor does the submittal include an analysis of whether such potential additional control technologies or measures could reduce the impact of New York's emissions on out of state receptors. Though there is not a prescribed method for a Step 3 analysis, EPA has consistently applied Step 3 of the good neighbor framework through a more rigorous evaluation of potential additional control technologies or measures than what was provided in the SIP submission. Identifying a range of various emissions control measures that have been or may be enacted at the state or local level, without analysis of the impact of those measures on the out of state receptors, is not analytically sufficient. In general, the air quality modeling that the EPA has conducted (as well the modeling relied on by New York in its submittal) already accounts for ''on-the-books'' emissions control measures. Both sets of modeling clearly establish continued linkage from New York to downwind receptors in 2023 at Steps 1 and 2, despite those emissions control efforts.

New York's September 2018 submittal referenced regulatory updates that New York asserted were in development and would provide for additional NO_X and VOC reductions. The EPA notes that New York has since adopted many of these regulatory updates.[41] New York adopted 6 NYCRR Part 227, Subpart 227–3, ''Ozone Season Oxides of Nitrogen (NO_X) Emission Limits for Simple Cycle and Regenerative Combustion Turbines,'' with a State effective date of January 16, 2020, that lowered allowable NO_X emissions from peaking units during the ozone season on high electric demand days, with compliance dates of May 1, 2023 (100 ppmvd[42] limit), and May 1, 2025 (25 ppmvd limit for gas and 42 ppmvd limit for oil).[43] New York adopted a regulation, 6 NYCRR Part 222, ''Distributed Generation Sources,'' with a State effective date of March 25, 2020, that established NO_X emissions control requirements for distributed generation and price responsive generation sources[44] with compliance dates of May 1, 2021 and May 1, 2025.[45] New York adopted revisions, with a State effective date of March 13, 2020, to NYCRR Part 219, including adoption of a new Subpart 219–10, ''Reasonably Available Control Technology (RACT) For Oxides of Nitrogen (NO_X) At Municipal and Private Solid Waste Incineration Units,'' which established NO_X limits for municipal waste combustors with a compliance date of March 14, 2021.[46] New York adopted revisions to NYCRR Part 218, subpart 218–7, ''Aftermarket Parts,'' with a State effective date of March 14, 2020, which required cleaner California certified aftermarket catalytic converters offered for sale or installed in New York State beginning January 1, 2023.[47] New York adopted revisions, with a State effective date of January 11, 2020, to 6 NYCRR Part 205, ''Architectural and Industrial Maintenance Coatings,'' with compliance effective January 1, 2021,[48] requiring more stringent VOC limits for coatings.[49] New York adopted revisions, with a State effective date of November 1, 2019, to 6 NYCRR Part 226, ''Solvent Metal Cleaning Processes,'' establishing VOC content limits for cleaning solvents used in operations not covered by other regulations, beginning November 1, 2020.[50] New York adopted revisions to 6 NYCRR Part 230, with a State effective date of February 11, 2021, ''Gasoline Dispensing Sites and Transport Vehicles,'' and 6 NYCRR Part 235, ''Consumer Products.'' Updates to NYCRR Part 230 include additional VOC control requirements for facilities during gasoline transfer operations beginning February 5, 2021.[51] Updates to Part 235, which require compliance by January 1, 2022, include revising and

[41] New York regulations are available at *https://www.dec.ny.gov/regulations/regulations.html.*

[42] The NO_X emission limits are on a part per million dry volume basis (ppmvd), corrected to 15 percent oxygen.

[43] New York submitted the updated regulation for SIP approval to the EPA on May 18, 2020. The EPA finalized approval on August 3, 2021. 86 FR 43956 (August 11, 2021).

[44] Distributed generation (DG) sources are engines used by host sites to supply electricity outside that supplied by distribution utilities. This on-site generation of electricity by DG sources is used by a wide range of commercial, institutional, and industrial facilities. DG applications range from supplying electricity during blackouts to supplying all a facility's electricity demand year-round. NY's DG rule applies to sources enrolled in demand response programs sponsored by the New York Independent System Operator or transmission utilities as well as sources used during times when the cost of electricity supplied by utilities is high (*i.e.,* price-responsive generation sources).

[45] New York submitted the updated regulation for SIP approval to the EPA on October 15, 2020.

[46] New York submitted the updated regulation for SIP approval to the EPA on February 23, 2021.

[47] As of December 1, 2021, New York had not submitted a revised version of subpart 218–7 to the EPA for SIP approval.

[48] The compliance date for the sale of products is January 1, 2021. The sell-through provision allows for product manufactured before January 1, 2021, to be sold through May 1, 2023.

[49] New York submitted the updated regulation for SIP approval to the EPA on October 15, 2020.

[50] New York submitted the updated regulation for SIP approval to the EPA on November 5, 2019. The EPA finalized approval on April 19, 2020. 85 FR 28490 (May 13, 2020).

[51] New York submitted the updated regulation for SIP approval to the EPA on March 3, 2021.

establishing VOC contents for consumer products.[52]

Additionally, New York adopted a revised version of 6 NYCRR Part 243, ''CSAPR NO_X Ozone Season Group 2 Trading Program,'' with a State effective date of January 2, 2019, in order to allow New York to allocate CSAPR allowances to regulated entities in New York under an abbreviated SIP.[53] However, the EPA notes that although New York's revised Part 243 replaced the EPA's default allocation procedures for the control periods in 2021 and beyond under the CSAPR Update FIP, the revised state rules did not create any enforceable emission limitations and did not replace the enforceable emission limitations set forth in the additional trading program provisions established under the CSAPR Update FIP. Moreover, the allowance allocations provisions adopted in Part 243 (as well as the additional trading program provisions established under the CSAPR Update) are no longer in effect for New York's sources because those provisions have been replaced as to the State's sources by the new trading program provisions established under the Revised CSAPR Update.[54]

In any case, in both the CSAPR Update and the more recent Revised CSAPR Update, the EPA found, in spite of the nominal stringency of New York's control programs, additional emissions reductions were achievable from EGUs in the State. This was true even under the level of control stringency the EPA determined appropriate to eliminate significant contribution for the *2008* ozone NAAQS. Further, the EPA has not established a benchmark cost-effectiveness threshold for good neighbor obligations for the 2015 ozone NAAQS, and New York in its submittal has not conducted an analysis to establish one for EPA to evaluate. Additionally, while New York's existing control measures have undoubtedly reduced the amount of transported ozone pollution to other states and have contributed to the downward emissions trends and improving air quality in the State, in light of continuing contribution to out of state receptors from the State at Steps 1 and 2 despite these measures, New York's SIP submission failed to provide an adequate analysis at Step 3.

As of December 1, 2021, New York had not yet adopted revisions to 6 NYCRR Part 203, ''Oil and Gas Sector,'' [55] or NYCRR Part 228, Subpart 228–1, ''Motor Vehicle and Mobile Equipment Refinishing and Recoating Operation.''

The EPA also notes that New York's 6 NYCRR Part 227, Subpart 227–3, which was approved into the SIP after EPA's receipt of this September 2018 submittal, and which implements NO_X limits on combustion turbines that operate as peaking units, will not be fully phased in until 2025, which is past the August 3, 2024 Moderate area attainment date for the 2015 ozone NAAQS. Additionally, New York said that the State's mobile on-road sector alone significantly impacted downwind monitors and noted that it controls its mobile emissions through its inspection/maintenance (I/M) and anti-idling standards. However, New York did not explain the role its I/M and anti-idling standards play in eliminating its significant contribution.

The EPA acknowledges that New York's RACT presumptive emissions limits and facility-specific emissions limits are based on an inflation-adjusted control cost valued at $5,500 per ton of NO_X reduced.

In general, however, the listing of existing or ''on-the-way'' control measures, whether approved into the State's SIP or not, does not substitute for a complete Step 3 analysis under the EPA's 4-step framework to define ''significant contribution.'' New York's submittal does not include an assessment of the overall effects of these measures, when the reductions would be achieved, and what the overall resulting air quality effects would be observed at identified out-of-state receptors. The State's submittal does not include an evaluation of additional potential emissions control opportunities, or their costs or impacts, or attempt to analyze whether, if applied more broadly across linked states, the emissions reductions would constitute the elimination of significant contribution on a regional scale. The State's submittal did not contain an explanation as to whether any faster or more stringent emissions reductions that may be available were prohibitively costly or infeasible. Although the EPA acknowledges states are not necessarily bound to follow its own analytical framework at Step 3, we note that the State did not attempt to determine or justify an appropriate uniform cost-effectiveness threshold for the more stringent 2015 ozone NAAQS, nor did the State offer an alternative to this analytical framework for determining ''significant contribution'' in its submittal. This would have been similar to the approach to defining significant contribution that the EPA has applied in prior rulemakings such as CSAPR and the CSAPR Update.

Further, the EPA's modeling already accounts for ''on-the-books'' control measures, and the State has not explained which of its measures were not already included in the EPA's modeling and thus deserve to be further credited as reducing the impact of the State's emissions beyond what the EPA's air quality modeling has already accounted for. In light of continuing contribution to out of state receptors from the State (at Steps 1 and 2) despite these measures, New York's SIP submission failed to evaluate the availability of any additional controls to improve downwind air quality at nonattainment and maintenance receptors at Step 3.

Finally, under the *Wisconsin* decision, states and the EPA may not delay implementation of measures necessary to address good neighbor requirements beyond the next applicable attainment date without a showing of impossibility or necessity. See 938 F.3d at 320. In those cases where the measures identified by the State had implementation timeframes beyond the next relevant attainment dates the submission did not offer a demonstration of impossibility of earlier implementation of those control measures.[56] Similarly, the State's submittal is insufficient to the extent the implementation timeframes for identified control measures were left unidentified, unexplained, or too uncertain to permit the EPA to form a judgment as to whether the timing requirements for good neighbor obligations have been met.

5. Evaluation of Information Provided Regarding Step 4

Step 4 of the 4-step interstate transport framework calls for development of permanent and

[52] New York submitted the updated regulation for SIP approval to the EPA on March 3, 2021.

[53] CSAPR provided a process for the submission and approval of SIP revisions to replace certain provisions of the CSAPR FIPs while the remaining FIP provisions continue to apply. This type of CSAPR SIP is termed an abbreviated SIP.

[54] The regulations implementing the Revised CSAPR Update provide that, for states subject to the Revised CSAPR Update and with respect to control periods after 2020, the EPA will no longer administer state trading program provisions approved under SIP revisions addressing the CSAPR Update's trading program. See 40 CFR 52.38(b)(16)(ii).

[55] New York filed a notice of proposed rulemaking on April 20, 2021. See *https://www.dec.ny.gov/regulations/122829.html.*

[56] While *Wisconsin* was decided after the state made its submission, EPA must evaluate the SIP based on the information available at the time of its action, including any relevant changes in caselaw or other requirements. States are generally free to withdraw and resubmit their SIP submissions in light of intervening changes in the law. The State of New York has not done so in this case.

federally enforceable control strategies to achieve the emissions reductions determined to be necessary at Step 3 to eliminate significant contribution to nonattainment or interference with maintenance of the NAAQS. New York identified a number of measures that were either in development or anticipated to occur in the future (See section III.4).[57] However, the State had not revised its SIP to include these emission reductions to ensure the reductions were permanent and enforceable. Although New York has subsequently adopted many of the measures identified in section III.4, several measures have not been approved into the SIP, either because the State failed to submit (*e.g.,* 6 NYCRR Part 218, Subpart 218–7, ''Aftermarket Parts) or the EPA has not yet finalized approval into the SIP. Therefore, the emission reductions associated with those rules are not permanent and enforceable. As a result, EPA proposes to disapprove New York's submittal on the separate, additional basis that New York has not included permanent and enforceable emissions reductions in its SIP as necessary to meet the obligations of 110(a)(2)(d)(i)(I).

6. Conclusion

Based on the EPA's evaluation of New York's' SIP submission, the EPA is proposing to find that the portion of New York's September 25, 2018 SIP submission addressing CAA section 110(a)(2)(D)(i)(I) does not meet the State's interstate transport obligations for the 2015 8-hour ozone NAAQS, because it fails to contain the necessary provisions to eliminate emissions in amounts that will contribute significantly to nonattainment or interfere with maintenance of the NAAQS in any other state.

B. New Jersey

1. Results of the EPA's Step 1 and Step 2 Modeling and Findings for New Jersey

As described in section I, the EPA performed air quality modeling using the 2016v2 emissions platform to project design values and contributions for 2023. These data were examined to determine if New Jersey contributes at or above the threshold of 1 percent of the 2015 8-hour ozone NAAQS (0.70 ppb) to any downwind nonattainment or maintenance receptor. As shown in Table 2, the data[58] indicate that in 2023 emissions from New Jersey contribute greater than 1 percent of the standard to nonattainment or maintenance-only receptors in Stratford, Connecticut (receptor ID 90013007), Westport, Connecticut (receptor ID 90019003), Greenwich, Connecticut (receptor ID 90010017), Madison, Connecticut (receptor ID 90099002), and Bucks County, Pennsylvania (receptor ID 480170012).[59]

TABLE 2—NEW JERSEY LINKAGE RESULTS BASED ON EPA UPDATED 2023 MODELING

Receptor ID	Location	Nonattainment/maintenance	2023 Average design value (ppb)	2023 Maximum design value (ppb)	New Jersey contribution (ppb)
90013007	Stratford, CT	Nonattainment	74.2	75.1	7.43
90019003	Westport, CT	Nonattainment	76.1	76.4	8.85
90010017	Greenwich, CT	Nonattainment	73.0	73.7	6.90
90099002	Madison, CT	Nonattainment	71.8	73.9	5.67
420170012	Bucks County, PA	Maintenance	70.7	72.2	5.79

2. Evaluation of Information Provided by New Jersey Regarding Step 1

As noted in section II.B., New Jersey submitted OTC modeling that identified nonattainment and maintenance receptors in 2023. Although the State used a different modeling approach (utilizing 2011 based modeling and the ERTAC EGU Projection tool), than the EPA's modeling, which used a 2016-based emissions platform developed under an EPA/MJO/state collaborative project, New Jersey's alternative modeling also identified a number of nonattainment and maintenance receptor sites in 2023. See page 9 of the May 30, 2019 SIP submission. New Jersey determined that there were nonattainment or maintenance problems at eight locations in Connecticut, New York, and Maryland, which exceeded the 5 locations in Connecticut and Pennsylvania that the EPA determined to have nonattainment or maintenance problems. Based on both the New Jersey and the EPA modeling, nonattainment and maintenance receptors are projected in 2023 at Step 1. Thus, even under the alternative modeling of 2023, New Jersey acknowledges in its submittal the existence of several nonattainment and maintenance receptors.

3. Evaluation of Information Provided by the State Regarding Step 2

Although New Jersey relied on alternative modeling to the EPA's modeling at Step 2, New Jersey acknowledged in its SIP submission that it is linked above 1 percent of the NAAQS (0.70 ppb for the 2015 8-hour ozone NAAQS) to one or more downwind receptors in 2023. Because the alternative modeling relied on by the State also demonstrates that a linkage exists between the State and downwind receptors at Step 2, the EPA need not conduct a comparative assessment of the alternative modeling; the State concedes that it is linked. New Jersey's analysis corroborates the conclusion in the EPA's most recent modeling. The EPA therefore will proceed to Step 3 of the 4-step interstate transport framework to assess arguments the State presented as to why, despite this linkage, the State should not be considered to significantly contribute to nonattainment or interfere with maintenance of the NAAQS in any other

[57] Pointing to anticipated upcoming emission reductions, even if they were not included in the analysis at Steps 1 and 2, is not sufficient as a Step 3 analysis, for the reasons discussed in Section III.A.4. In this section, we explain that to the extent such anticipated reductions are not included in the SIP and rendered permanent and enforceable, reliance on such anticipated reductions is also insufficient at Step 4.

[58] Design values and contributions at individual monitoring sites nationwide are provide in the file: 2023_DVs_Contributions_2016v2_Platform which is included in docket ID No. EPA–HQ–OAR–2021–0663.

[59] These modeling results are consistent with the results of a prior round of 2023 modeling using the 2016v1 emissions platform which became available to the public in the fall of 2020 in the Revised CSAPR Update, as noted in Section I. That modeling showed that New Jersey had a maximum contribution greater than 0.70 ppb to at least one nonattainment or maintenance-only receptor in 2023. These modeling results are included in the file ''Ozone Design Values And Contributions Revised CSAPR Update.xlsx'' in docket EPA–HQ–OAR–2021–0663.

state such that additional emissions reductions are required.

4. Evaluation of Information Provided Regarding Step 3

At Step 3 of the 4-step interstate transport framework, a state's emissions are further evaluated, in light of multiple factors, including air quality and cost considerations, to determine what, if any, emissions significantly contribute to nonattainment or interfere with maintenance and, thus, must be eliminated under CAA section 110(a)(2)(D)(i)(I).

To effectively evaluate which emissions in the state should be deemed ''significant'' and therefore prohibited, states generally should prepare an accounting of sources and other emissions activity and assess potential, additional emissions reduction opportunities and resulting downwind air quality improvements. The EPA has consistently applied this general approach (*i.e.,* Step 3 of the 4-step interstate transport framework) when identifying emissions contributions that the Agency has determined to be ''significant'' (or interfere with maintenance) in each of its prior Federal, regional ozone transport rulemakings, and this interpretation of the statute has been upheld by the Supreme Court. *See EME Homer City,* 572 U.S. 489, 519 (2014). While the EPA has not directed states that they must conduct a Step 3 analysis in precisely the manner the EPA has done in its prior regional transport rulemakings, state implementation plans addressing the obligations in CAA section 110(a)(2)(D)(i)(I) must prohibit ''any source or other type of emissions activity within the State'' from emitting air pollutants which will contribute significantly to downwind air quality problems. Thus, states must complete something similar to the EPA's analysis (or an alternative approach to defining ''significance'' that comports with the statute's objectives) to determine whether and to what degree emissions from a state should be ''prohibited'' to eliminate emissions that will ''contribute significantly to nonattainment in, or interfere with maintenance of,'' the NAAQS in any other state. New Jersey did not conduct such an analysis in its SIP submission.

As previously noted, New Jersey asserted in its May 2019 submittal that considering air quality, the emissions reductions from New Jersey's adopted measures, and the cost effectiveness of those measures, no additional emissions reductions from New Jersey are necessary to address its good neighbor obligations to downwind nonattainment and maintenance areas. New Jersey stated that control measures were adopted and implemented before attainment deadlines and go beyond previously established the EPA cost effectiveness thresholds. New Jersey also provided information documenting the emissions reductions that have been made throughout the State beginning in 2002 with corresponding improvements in air quality in New Jersey to demonstrate the impact of New Jersey's control measures.

New Jersey's submittal, however, did not contain a demonstration at Step 3 that the State was adequately controlling its emissions for purposes of the good neighbor provision, particularly because the State conceded in its submission that it was potentially significantly contributing to eight receptors in 2023 at Steps 1 and 2. The SIP submittal pointed to the State's existing NO_X and VOC control measures that were adopted by the State to conclude New Jersey is already meeting its good neighbor obligations for the 2015 8-hour ozone NAAQS. However, the State's submittal does not include a sufficient examination or a technical justification that could support the conclusion that the State has no further good neighbor obligations for the 2015 8-hour ozone NAAQS. In particular, the State did not conduct in its submittal an analysis of potential additional emissions-reduction measures to further reduce its impact on the identified downwind receptors. For example, New Jersey did not include in its submission an accounting of individual emissions units at facilities in the State along with an analysis of potential NO_X emissions control technologies, their associated costs, estimated emissions reductions, and downwind air quality improvements. Nor does the submittal include an analysis of whether such potential, additional control technologies or measures could reduce the impact of New Jersey's emissions on out of state receptors. Though there is not a prescribed method for a Step 3 analysis, the EPA has consistently applied Step 3 of the good neighbor framework through a more rigorous evaluation of potential additional control technologies or measures than what New Jersey provided in its submission. Identifying a range of various emissions control measures that have been or may be enacted at the state level, without analysis of the impact of those measures on the out of state receptors, is not analytically sufficient. In general, the air quality modeling that EPA has conducted (as well the modeling relied on by New Jersey in its submittal) already accounts for ''on-the-books'' emissions control measures. Both sets of modeling clearly establish continued linkage from New Jersey to downwind receptors in 2023 at Steps 1 and 2, despite those emissions control efforts.

The EPA acknowledges that the State's control measures listed in the State's SIP submittal may be nominally more stringent than the EPA cost-thresholds used for the CSAPR Update or Revised CSAPR Update. But those cost-thresholds were for the 2008 ozone NAAQS (a less stringent NAAQS than the 2015 ozone NAAQS). Further, in the Revised CSAPR Update, the EPA found that despite the nominal stringency of New Jersey's control programs, additional emissions reductions were achievable from EGUs in the State, even under the level of control stringency the EPA determined appropriate to eliminate significant contribution for the *2008* ozone NAAQS. In any case, the EPA has not established a benchmark cost-effectiveness threshold for good neighbor obligations for the 2015 ozone NAAQS, and New Jersey in its submittal has not conducted an analysis to establish one for the EPA to evaluate. Additionally, while New Jersey's existing control measures have undoubtedly reduced the amount of transported ozone pollution to other states and have contributed to the downward emissions trends and improving air quality in the State as shown in the State's SIP submittal, in light of continuing contribution to out of state receptors from the State at Steps 1 and 2 despite these measures, New Jersey's SIP submission failed to provide an adequate analysis at Step 3.

We therefore propose that New Jersey was required to analyze emissions from the sources and other emissions activity from within the state to determine whether its contributions were significant, and we propose to disapprove its submission because New Jersey failed to do so.

5. Evaluation of Information Provided Regarding Step 4

Step 4 of the 4-step interstate transport framework calls for development of permanent and federally enforceable control strategies to achieve the emissions reductions determined to be necessary at Step 3 to eliminate significant contribution to nonattainment or interference with maintenance of the NAAQS. As mentioned previously, New Jersey's SIP submission did not contain an evaluation of additional emission control opportunities (or establish that no additional controls are required),

thus, no information was provided at Step 4. As a result, EPA proposes to disapprove New Jersey's submittal on the separate, additional basis that the State has not developed permanent and enforceable emissions reductions necessary to meet the obligations of CAA section 110(a)(2)(d)(i)(I).

6. Conclusion

Based on the EPA's evaluation of New Jersey's SIP submission, the EPA is proposing to find that the portion of New Jersey's May 13, 2019 SIP submission addressing CAA section 110(a)(2)(D)(i)(I) does not meet the State's interstate transport obligations for the 2015 8-hour ozone NAAQS, because it fails to contain the necessary provisions to eliminate emissions in amounts that will contribute significantly to nonattainment or interfere with maintenance of the NAAQS in any other state.

IV. Proposed Action

We are proposing to disapprove the portion of New York's and New Jersey's SIP submissions pertaining to interstate transport of air pollution which will significantly contribute to nonattainment or interfere with maintenance of the 2015 8-hour ozone NAAQS in other states. Under CAA section 110(c)(1), disapproval, if finalized, would establish a 2-year deadline for the EPA to promulgate a FIP for New York and New Jersey to address interstate transport requirements for the 2015 8-hour ozone NAAQS, unless the EPA approves a SIP that meets these requirements. Disapproval does not start a mandatory sanctions clock for New York and New Jersey. The remaining elements of New York's September 25, 2018 submission, and New Jersey's May 13, 2019 submission are not addressed in this action and either have been or will be acted on in separate rulemakings.

V. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review

This action is not a significant regulatory action and was therefore not submitted to the Office of Management and Budget for review.

B. Paperwork Reduction Act (PRA)

This proposed action does not impose an information collection burden under the PRA because it does not contain any information collection activities

C. Regulatory Flexibility Act (RFA)

I certify that this action will not have a significant economic impact on a substantial number of small entities under the RFA. This action merely proposes to disapprove a SIP submission as not meeting the CAA.

D. Unfunded Mandates Reform Act (UMRA)

This action does not contain any unfunded mandate as described in UMRA, 2 U.S.C. 1531–1538, and does not significantly or uniquely affect small governments. The action imposes no enforceable duty on any state, local or tribal governments or the private sector.

E. Executive Order 13132: Federalism

This action does not have federalism implications. It will not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government.

F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments

This action does not have tribal implications as specified in Executive Order 13175. This action does not apply on any Indian reservation land, any other area where the EPA or an Indian tribe has demonstrated that a tribe has jurisdiction, or non-reservation areas of Indian country. Thus, Executive Order 13175 does not apply to this action.

G. Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks

The EPA interprets Executive Order 13045 as applying only to those regulatory actions that concern environmental health or safety risks that the EPA has reason to believe may disproportionately affect children, per the definition of ''covered regulatory action'' in section 2–202 of the Executive Order. This action is not subject to Executive Order 13045 because it merely proposes to disapprove a SIP submission as not meeting the CAA.

H. Executive Order 13211, Actions That Significantly Affect Energy Supply, Distribution or Use

This action is not subject to Executive Order 13211, because it is not a significant regulatory action under Executive Order 12866.

I. National Technology Transfer and Advancement Act

This rulemaking does not involve technical standards.

J. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations

The EPA believes the human health or environmental risk addressed by this action will not have potential disproportionately high and adverse human health or environmental effects on minority, low-income or indigenous populations. This action merely proposes to disapprove a SIP submission as not meeting the CAA.

K. CAA Section 307(b)(1)

Section 307(b)(1) of the CAA governs judicial review of final actions by the EPA. This section provides, in part, that petitions for review must be filed in the D.C. Circuit: (i) When the agency action consists of ''nationally applicable regulations promulgated, or final actions taken, by the Administrator,'' or (ii) when such action is locally or regionally applicable, if ''such action is based on a determination of nationwide scope or effect and if in taking such action the Administrator finds and publishes that such action is based on such a determination.'' For locally or regionally applicable final actions, the CAA reserves to the EPA complete discretion whether to invoke the exception in (ii).[60]

The EPA anticipates that this proposed rulemaking, if finalized, would be ''nationally applicable'' within the meaning of CAA section 307(b)(1) because it would take final action on SIP submittals for the 2015 ozone NAAQS for two states, which are located in two different Federal judicial circuits. It would apply uniform, nationwide analytical methods, policy judgments, and interpretation with respect to the same CAA obligations, *i.e.,* implementation of good neighbor requirements under CAA section 110(a)(2)(D)(i)(I) for the 2015 ozone NAAQS for states across the country, and final action would be based on this common core of determinations, described in further detail below.

If the EPA takes final action on this proposed rulemaking, in the alternative,

[60] In deciding whether to invoke the exception by making and publishing a finding that an action is based on a determination of nationwide scope or effect, the Administrator takes into account a number of policy considerations, including his judgment balancing the benefit of obtaining the D.C. Circuit's authoritative centralized review versus allowing development of the issue in other contexts and the best use of agency resources.

the Administrator intends to exercise the complete discretion afforded to him under the CAA to make and publish a finding that the final action (to the extent a court finds the action to be locally or regionally applicable) is based on a determination of ''nationwide scope or effect'' within the meaning of CAA section 307(b)(1). Through this rulemaking action (in conjunction with a series of related actions on other SIP submissions for the same CAA obligations), the EPA interprets and applies section 110(a)(2)(d)(i)(I) of the CAA for the 2015 ozone NAAQS based on a common core of nationwide policy judgments and technical analysis concerning the interstate transport of pollutants throughout the continental U.S. In particular, the EPA is applying here (and in other proposed actions related to the same obligations) the same, nationally consistent 4-step framework for assessing good neighbor obligations for the 2015 ozone NAAQS. The EPA relies on a single set of updated, 2016-base year photochemical grid modeling results of the year 2023 as the primary basis for its assessment of air quality conditions and contributions at Steps 1 and 2 of that framework. Further, the EPA proposes to determine and apply a set of nationally consistent policy judgments to apply the 4-step framework. The EPA has selected a nationally uniform analytic year (2023) for this analysis and is applying a nationally uniform approach to nonattainment and maintenance receptors and a nationally uniform approach to contribution threshold analysis.[61] For these reasons, the Administrator intends, if this proposed action is finalized, to exercise the complete discretion afforded to him under the CAA to make and publish a finding that this action is based on one or more determinations of nationwide scope or effect for purposes of CAA section 307(b)(1).[62]

[61] A finding of nationwide scope or effect is also appropriate for actions that cover states in multiple judicial circuits. In the report on the 1977 Amendments that revised section 307(b)(1) of the CAA, Congress noted that the Administrator's determination that the ''nationwide scope or effect'' exception applies would be appropriate for any action that has a scope or effect beyond a single judicial circuit. See H.R. Rep. No. 95–294 at 323, 324, reprinted in 1977 U.S.C.C.A.N. 1402–03.

[62] The EPA may take a consolidated, single final action on all the proposed SIP disapproval actions with respect to obligations under CAA section 110(a)(2)(D)(i)(I) for the 2015 ozone NAAQS. Should EPA take a single final action on all such disapprovals, this action would be nationally applicable, and the EPA would also anticipate, in the alternative, making and publishing a finding that such final action is based on a determination of nationwide scope or effect.

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Ozone.

Authority: 42 U.S.C. 7401 *et seq.*

Dated: January 31, 2022.

Lisa Garcia,

Regional Administrator, Region 2.

[FR Doc. 2022–02946 Filed 2–18–22; 8:45 am]

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ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA–R04–OAR–2021–0841; EPA–HQ–OAR–2021–0663; FRL–9423–01–R4]

Air Plan Disapproval; Kentucky; Interstate Transport Requirements for the 2015 8-Hour Ozone National Ambient Air Quality Standards

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: Pursuant to the Federal Clean Air Act (CAA or the Act), the Environmental Protection Agency (EPA or Agency) is proposing to disapprove a State Implementation Plan (SIP) submittal from the Kentucky Energy and Environment Cabinet, Department of Environmental Quality (DAQ) (herein after referred to as Kentucky or the Commonwealth) regarding the interstate transport requirements for the 2015 8-hour ozone national ambient air quality standards (NAAQS or standard). The ''Good Neighbor'' or ''Interstate Transport'' provision requires that each state's implementation plan contain adequate provisions to prohibit emissions from within the state from significantly contributing to nonattainment or interfering with maintenance of the NAAQS in other states. This requirement is part of the broader set of ''infrastructure'' requirements, which are designed to ensure that the structural components of each state's air quality management program are adequate to meet the state's responsibilities under the CAA. This disapproval, if finalized, will establish a 2-year deadline for EPA to promulgate a Federal Implementation Plan (FIP) to address the relevant interstate transport requirements, unless EPA approves a subsequent SIP submittal that meets these requirements. Disapproval does not start a mandatory sanctions clock.

DATES: Comments must be received on or before April 25, 2022.

Withdrawals: As of February 22, 2022, the proposed rule published in December 30, 2019, at 84 FR 71854, is withdrawn.

ADDRESSES: You may submit comments, identified by Docket No. EPA–R04–OAR–2021–0841, through the Federal eRulemaking Portal at *https://www.regulations.gov* following the online instructions for submitting comments.

Instructions: All submissions received must include the Docket No. EPA–R04–OAR–2021–0841 for this rulemaking. Comments received may be posted without change to *https://www.regulations.gov/,* including any personal information provided. For detailed instructions on submitting comments and additional information on the rulemaking process, see the ''Public Participation'' heading of the **SUPPLEMENTARY INFORMATION** section of this document. Out of an abundance of caution for members of the public and staff, the EPA Docket Center and Reading Room are open to the public by appointment only to reduce the risk of transmitting COVID–19. The Docket Center staff also continues to provide remote customer service via email, phone, and webform. For further information on EPA Docket Center services and the current status, please visit EPA online at *https://www.epa.gov/dockets.*

FOR FURTHER INFORMATION CONTACT: Evan Adams of the Air Regulatory Management Section, Air Planning and Implementation Branch, Air and Radiation Division, U.S. Environmental Protection Agency, Region 4, 61 Forsyth Street SW, Atlanta, Georgia 30303–8960. Mr. Adams can be reached by telephone at (404) 562–9009, or via electronic mail at *adams.evan@epa.gov.*

SUPPLEMENTARY INFORMATION: *Public Participation:* Submit your comments, identified by Docket No. EPA–R04–OAR–2021–0841, at *https://www.regulations.gov.* Once submitted, comments cannot be edited or removed from the docket. EPA may publish any comment received to its public docket. Do not submit to EPA's docket at *https://www.regulations.gov* any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. EPA will generally not consider comments or comment contents located outside of the primary submission (*i.e.,* on the web, cloud, or other file sharing system).

There are two dockets supporting this action, EPA–R04–OAR–2021–0841 and EPA–HQ–OAR–2021–0663. Docket No. EPA–R04–OAR–2021–0841 contains information specific to Kentucky, including this notice of proposed rulemaking. Docket No. EPA–HQ–OAR–2021–0663 contains additional modeling files, emissions inventory files, technical support documents, and other relevant supporting documentation regarding interstate transport of emissions for the 2015 8-hour ozone NAAQS which are being used to support this action. All comments regarding information in either of these dockets are to be made in Docket No. EPA–R04–OAR–2021–0841. For the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit *https://www.epa.gov/dockets/commenting-epa-dockets.* Due to public health concerns related to COVID–19, the EPA Docket Center and Reading Room are open to the public by appointment only. The Docket Center staff also continues to provide remote customer service via email, phone, and webform. For further information and updates on EPA Docket Center services, please visit EPA online at *https://www.epa.gov/dockets.*

EPA continues to carefully and continuously monitor information from the Centers for Disease Control and Prevention (CDC), local area health departments, and Federal partners so that EPA can respond rapidly as conditions change regarding COVID–19.

The indices to Docket No. EPA–R04–OAR–2021–0841 and Docket No. EPA–HQ–OAR–2021–0663 are available electronically at *www.regulations.gov.* While all documents in each docket are listed in their respective index, some information may not be publicly available due to docket file size restrictions or content (*e.g.,* CBI).

Table of Contents

I. Background

The following provides background for EPA's proposed action related to the interstate transport requirements for the 2015 8-hour ozone NAAQS for the Commonwealth of Kentucky.

A. Description of Statutory Background

On October 1, 2015, EPA promulgated a revision to the ozone NAAQS (2015 8-hour ozone NAAQS), lowering the level of both the primary and secondary standards to 0.070 parts per million (ppm).[1] Section 110(a)(1) of the CAA requires states to submit, within 3 years after promulgation of a new or revised standard, SIP submissions meeting the applicable requirements of section 110(a)(2).[2] One of these applicable requirements is found in CAA section 110(a)(2)(D)(i)(I), otherwise known as the ''good neighbor'' or ''interstate transport'' provision, which generally requires SIPs to contain adequate provisions to prohibit in-state emissions activities from having certain adverse air quality effects on other states due to interstate transport of pollution. There are two so-called ''prongs'' within CAA section 110(a)(2)(D)(i)(I). A SIP for a new or revised NAAQS must contain adequate provisions prohibiting any source or other type of emissions activity within the state from emitting air pollutants in amounts that will significantly contribute to nonattainment of the NAAQS in another state (prong 1) or interfere with maintenance of the NAAQS in another state (prong 2). EPA and states must give independent significance to prong 1 and prong 2 when evaluating downwind air quality problems under CAA section 110(a)(2)(D)(i)(I).[3]

B. Description of EPA's Four Step Interstate Transport Regulatory Process

EPA is using the 4-step interstate transport framework (or 4-step framework) to evaluate the states' implementation plan submittals addressing the interstate transport provision for the 2015 8-hour ozone NAAQS. EPA has addressed the interstate transport requirements of CAA section 110(a)(2)(D)(i)(I) with respect to prior ozone NAAQS in several regional regulatory actions, including the Cross-State Air Pollution Rule (CSAPR), which addressed interstate transport with respect to the 1997 ozone NAAQS as well as the 1997 and 2006 fine particulate matter standards,[4] the Cross-State Air Pollution Rule Update (CSAPR Update) [5] and the Revised CSAPR Update, both of which addressed the 2008 ozone NAAQS.[6]

Through the development and implementation of the CSAPR rulemakings and prior regional rulemakings pursuant to the interstate transport provision,[7] EPA, working in partnership with states, developed the following 4-step interstate transport framework to evaluate a state's obligations to eliminate interstate transport emissions under the interstate transport provision for the ozone NAAQS: (1) Identify monitoring sites that are projected to have problems attaining and/or maintaining the NAAQS (*i.e.,* nonattainment and/or maintenance receptors); (2) identify

[1] National Ambient Air Quality Standards for Ozone, Final Rule, 80 FR 65292 (October 26, 2015). Although the level of the standard is specified in the units of ppm, ozone concentrations are also described in parts per billion (ppb). For example, 0.070 ppm is equivalent to 70 ppb.

[2] SIP revisions that are intended to meet the applicable requirements of section 110(a)(1) and (2) of the CAA are often referred to as infrastructure SIPs and the applicable elements under section 110(a)(2) are referred to as infrastructure requirements.

[3] *See North Carolina* v. *EPA,* 531 F.3d 896, 909–11 (D.C. Cir. 2008).

[4] *See* Federal Implementation Plans: Interstate Transport of Fine Particulate Matter and Ozone and Correction of SIP Approvals, 76 FR 48208 (August 8, 2011).

[5] Cross-State Air Pollution Rule Update for the 2008 Ozone NAAQS, 81 FR 74504 (October 26, 2016).

[6] In 2019, the United States Court of Appeals for the District of Columbia Circuit (D.C. Circuit) remanded the CSAPR Update to the extent it failed to require upwind states to eliminate their significant contribution by the next applicable attainment date by which downwind states must come into compliance with the NAAQS, as established under CAA section 181(a). *Wisconsin* v. *EPA,* 938 F.3d 303, 313 (D.C. Cir. 2019). The Revised CSAPR Update for the 2008 Ozone NAAQS, 86 FR 23054 (April 30, 2021), responded to the remand of the CSAPR Update in *Wisconsin* and the vacatur of a separate rule, the ''CSAPR Close-Out,'' 83 FR 65878 (December 21, 2018), in *New York* v. *EPA,* 781 F. App'x. 4 (D.C. Cir. 2019).

[7] In addition to CSAPR rulemakings, other regional rulemakings addressing ozone transport include the ''NO_X SIP Call,'' 63 FR 57356 (October 27, 1998), and the ''Clean Air Interstate Rule'' (CAIR), 70 FR 25162 (May 12, 2005).

states that impact those air quality problems in other (*i.e.,* downwind) states sufficiently such that the states are considered ''linked'' and therefore warrant further review and analysis; (3) identify the emissions reductions necessary (if any), applying a multifactor analysis, to eliminate each linked upwind state's significant contribution to nonattainment or interference with maintenance of the NAAQS at the locations identified in Step 1; and (4) adopt permanent and enforceable measures needed to achieve those emissions reductions.

C. Background on EPA's Ozone Transport Modeling Information

In general, EPA has performed nationwide air quality modeling to project ozone design values which are used in combination with measured data to identify nonattainment and maintenance receptors. To quantify the contribution of emissions from specific upwind states on 2023 ozone design values for the identified downwind nonattainment and maintenance receptors, EPA performed nationwide, state-level ozone source apportionment modeling for 2023. The source apportionment modeling provided contributions to ozone at receptors from precursor emissions of anthropogenic nitrogen oxides (NO_X) and volatile organic compounds (VOCs) in individual upwind states.

EPA has released several documents containing projected design values, contributions, and information relevant to evaluating interstate transport with respect to the 2015 8-hour ozone NAAQS. First, on January 6, 2017, EPA published a notice of data availability (NODA) in which the Agency requested comment on preliminary interstate ozone transport data including projected ozone design values and interstate contributions for 2023 using a 2011 base year platform.[8] In the NODA, EPA used the year 2023 as the analytic year for this preliminary modeling because that year aligns with the expected attainment year for Moderate ozone nonattainment areas for the 2015 8-hour ozone NAAQS.[9] On October 27, 2017, EPA released a memorandum (October 2017 memorandum) containing updated modeling data for 2023, which incorporated changes made in response to comments on the NODA, and noted that the modeling may be useful for states developing SIPs to address interstate transport obligations for the 2008 ozone NAAQS.[10] On March 27, 2018, EPA issued a memorandum (March 2018 memorandum) noting that the same 2023 modeling data released in the October 2017 memorandum could also be useful for identifying potential downwind air quality problems with respect to the 2015 8-hour ozone NAAQS at Step 1 of the 4-step interstate transport framework.[11] The March 2018 memorandum also included the then newly available contribution modeling data for 2023 to assist states in evaluating their impact on potential downwind air quality problems for the 2015 8-hour ozone NAAQS under Step 2 of the 4-step interstate transport framework.[12] EPA subsequently issued two more memoranda in August and October 2018, providing additional information to states developing interstate transport SIP submissions for the 2015 8-hour ozone NAAQS concerning, respectively, potential contribution thresholds that may be appropriate to apply in Step 2 of the 4-step interstate transport framework, and considerations for identifying downwind areas that may have problems maintaining the standard at Step 1 of the 4-step interstate transport framework.[13]

Since the release of the modeling data shared in the March 2018 memorandum, EPA performed updated modeling using a 2016-based emissions modeling platform (*i.e.,* 2016v1). This emissions platform was developed under the EPA/Multi-Jurisdictional Organization (MJO)/state collaborative project.[14] This collaborative project was a multi-year joint effort by EPA, MJOs, and states to develop a new, more recent emissions platform for use by EPA and states in regulatory modeling as an improvement over the dated 2011-based platform that EPA had used to project ozone design values and contribution data provided in the 2017 and 2018 memoranda. EPA used the 2016v1 emissions to project ozone design values and contributions for 2023. On October 30, 2020, in the Notice of Proposed Rulemaking for the Revised CSAPR Update, EPA released and accepted public comment on 2023 modeling that used the 2016v1 emissions platform.[15] Although the Revised CSAPR Update addressed transport for the 2008 ozone NAAQS, the projected design values and contributions from the 2016v1 platform are also useful for identifying downwind ozone problems and linkages with respect to the 2015 8-hour ozone NAAQS.[16]

Following the Revised CSAPR Update final rule, EPA made further updates to the 2016 emissions platform to include mobile emissions from EPA's Motor Vehicle Emission Simulator (MOVES) model [17] and updated emissions projections for electric generating units (EGUs) that reflect the emissions reductions from the Revised CSAPR Update, recent information on plant closures, and other sector trends. The construct of the updated emissions platform, 2016v2, is described in the Preparation of Emissions Inventories for the 2016v2 North American Emissions Modeling Platform technical support document (TSD) for this proposed rule and is included in Docket No. EPA–HQ–OAR–2021–0663. EPA performed air quality modeling of the 2016v2 emissions using the most recent public release version of the Comprehensive Air Quality Modeling with Extensions (CAMx) photochemical modeling,

[8] *See* Notice of Availability of the Environmental Protection Agency's Preliminary Interstate Ozone Transport Modeling Data for the 2015 8-hour Ozone National Ambient Air Quality Standard (NAAQS), 82 FR 1733 (January 6, 2017).

[9] *See* 82 FR 1733, 1735 (January 6, 2017).

[10] *See* Information on the Interstate Transport State Implementation Plan Submissions for the 2008 Ozone National Ambient Air Quality Standards under Clean Air Act Section 110(a)(2)(D)(i)(I), October 27, 2017 (''October 2017 memorandum''), available in Docket No. EPA–HQ–OAR–2021–0663 or at *https://www.epa.gov/interstate-air-pollution-transport/interstate-air-pollution-transport-memos-and-notices.*

[11] *See* Information on the Interstate Transport State Implementation Plan Submissions for the 2015 Ozone National Ambient Air Quality Standards under Clean Air Act Section 110(a)(2)(D)(i)(I), March 27, 2018 (''March 2018 memorandum''), available in Docket No. EPA–HQ–OAR–2021–0663 or at *https://www.epa.gov/interstate-air-pollution-transport/interstate-air-pollution-transport-memos-and-notices.*

[12] The March 2018 memorandum, however, provided, ''While the information in this memorandum and the associated air quality analysis data could be used to inform the development of these SIPs, the information is not a final determination regarding states' obligations under the good neighbor provision. Any such determination would be made through notice-and-comment rulemaking.''

[13] *See* Analysis of Contribution Thresholds for Use in Clean Air Act Section 110(a)(2)(D)(i)(I) Interstate Transport State Implementation Plan Submissions for the 2015 Ozone National Ambient Air Quality Standards, August 31, 2018) (''August 2018 memorandum''), and Considerations for Identifying Maintenance Receptors for Use in Clean Air Act Section 110(a)(2)(D)(i)(I) Interstate Transport State Implementation Plan Submissions for the 2015 Ozone National Ambient Air Quality Standards, October 19, 2018 (''October 2018 memorandum''), available in Docket No. EPA–HQ–OAR–2021–0663 for this action or at *https://www.epa.gov/airmarkets/memo-and-supplemental-information-regarding-interstate-transport-sips-2015-ozone-naaqs.*

[14] The results of this modeling, as well as the underlying modeling files, are included in Docket No. EPA–HQ–OAR–2021–0663.

[15] *See* 85 FR 68964, 68981 (October 30, 2020).

[16] See the Air Quality Modeling Technical Support Document for the Final Revised Cross-State Air Pollution Rule Update, included in Docket No. EPA–HQ–OAR–2021–0663.

[17] Additional details and documentation related to the MOVES3 model can be found at *https://www.epa.gov/moves/latest-version-motor-vehicle-emission-simulator-moves.*

version 7.10.[18] EPA proposes to primarily rely on modeling based on the updated and newly available 2016v2 emissions platform in evaluating these submissions with respect to Steps 1 and 2 of the 4-step interstate transport framework. By using the updated modeling results, EPA is using the most current and technically appropriate information for this proposed rulemaking. Section III of this notice and the Air Quality Modeling TSD included in Docket No. EPA–HQ–OAR–2021–0663 for this proposal contain additional detail on the modeling performed using the 2016v2 emissions modeling.

In this notice, EPA is accepting public comment on this updated 2023 modeling, which uses the 2016v2 emissions platform. Details on the air quality modeling and the methods for projecting design values and determining contributions in 2023 are described in the Air Quality Modeling TSD for 2015 8-hour Ozone NAAQS Transport SIP Proposed Actions. Comments on EPA's air quality modeling should be submitted in Docket No. EPA–R04–OAR–2021–0841. Comments are not being accepted in Docket No. EPA–HQ–OAR–2021–0663.

States may have chosen to rely on the results of EPA modeling and/or alternative modeling performed by states or Multi-Jurisdictional Organizations (MJOs) to evaluate downwind air quality problems and contributions as part of their submissions. In section III, EPA evaluates how Kentucky used air quality modeling information in its submission.

D. EPA's Approach to Evaluating Interstate Transport SIPs for the 2015 8-Hour Ozone NAAQS

EPA proposes to apply a consistent set of policy judgments across all states for purposes of evaluating interstate transport obligations and the approvability of interstate transport SIP submittals for the 2015 8-hour ozone NAAQS. These policy judgments reflect consistency with relevant case law and past Agency practice as reflected in CSAPR and related rulemakings. Nationwide consistency in approach is particularly important in the context of interstate ozone transport, which is a regional-scale pollution problem involving many smaller contributors. Effective policy solutions to the problem of interstate ozone transport going back to the NO_X SIP Call have necessitated the application of a uniform framework of policy judgments in order to ensure an ''efficient and equitable'' approach. *See EME Homer City Generation, LP* v. *EPA,* 572 U.S. 489, 519 (2014).

In the March, August, and October 2018 memoranda, EPA recognized that states may be able to establish alternative approaches to addressing their interstate transport obligations for the 2015 8-hour ozone NAAQS that vary from a nationally uniform framework. EPA emphasized in these memoranda, however, that such alternative approaches must be technically justified and appropriate in light of the facts and circumstances of each particular state's submittal. In general, EPA continues to believe that deviation from a nationally consistent approach to ozone transport must be substantially justified and have a well-documented technical basis that is consistent with relevant case law. Where states submitted SIPs that rely on any such potential concepts as may have been identified or suggested in the past, EPA will evaluate whether the state adequately justified the technical and legal basis for doing so.

EPA notes that certain potential concepts included in an attachment to the March 2018 memorandum require unique consideration, and these ideas do not constitute Agency guidance with respect to transport obligations for the 2015 8-hour ozone NAAQS. Attachment A to the March 2018 memorandum identified a ''Preliminary List of Potential Flexibilities'' that could potentially inform SIP development.[19] However, EPA made clear in that attachment that the list of ideas were not suggestions endorsed by the Agency but rather ''comments provided in various forums'' on which EPA sought ''feedback from interested stakeholders.'' [20] Further, Attachment A stated, ''EPA is not at this time making any determination that the ideas discussed below are consistent with the requirements of the CAA, nor [is EPA] specifically recommending that states use these approaches.'' [21] Attachment A to the March 2018 memorandum, therefore, does not constitute agency guidance, but was intended to generate further discussion around potential approaches to addressing ozone transport among interested stakeholders. To the extent states sought to develop or rely on these ideas in support of their SIP submittals, EPA will thoroughly review the technical and legal justifications for doing so.

The remainder of this section describes EPA's proposed framework with respect to analytic year, definition of nonattainment and maintenance receptors, selection of contribution threshold, and multifactor control strategy assessment.

1. Selection of Analytic Year

In general, the states and EPA must implement the interstate transport provision in a manner ''consistent with the provisions of [title I of the CAA].'' *See* CAA section 110(a)(2)(D)(i). This requires, among other things, that these obligations are addressed consistently with the timeframes for downwind areas to meet their CAA obligations. With respect to ozone NAAQS, under CAA section 181(a), this means obligations must be addressed ''as expeditiously as practicable'' and no later than the schedule of attainment dates provided in CAA section 181(a)(1).[22] Several D.C. Circuit court decisions address the issue of the relevant analytic year for the purposes of evaluating ozone transport air-quality problems. On September 13, 2019, the D.C. Circuit issued a decision in *Wisconsin* v. *EPA,* remanding the CSAPR Update to the extent that it failed to require upwind states to eliminate their significant contribution by the next applicable attainment date by which downwind states must come into compliance with the NAAQS, as established under CAA section 181(a). *See* 938 F.3d 303, 313.

On May 19, 2020, the D.C. Circuit issued a decision in *Maryland* v. *EPA* that cited the *Wisconsin* decision in holding that EPA must assess the impact of interstate transport on air quality at the next downwind attainment date, including Marginal area attainment dates, in evaluating the basis for EPA's denial of a petition under CAA section 126(b). *Maryland* v. *EPA,* 958 F.3d 1185, 1203–04 (D.C. Cir. 2020). The court noted that ''section 126(b) incorporates the Good Neighbor Provision,'' and, therefore, ''EPA must find a violation [of section 126] if an upwind source will significantly contribute to downwind nonattainment at the *next downwind attainment deadline.* Therefore, the agency must evaluate downwind air quality at that deadline, not at some later date.'' *Id.* at 1204 (emphasis added). EPA interprets the court's holding in *Maryland* as requiring the states and the Agency, under the good neighbor provision, to assess downwind air quality as expeditiously as practicable and no later than the next

[18] Ramboll Environment and Health, January 2021, *www.camx.com.*

[19] March 2018 memorandum, Attachment A.

[20] *Id.* at A–1.

[21] *Id.*

[22] For attainment dates for the 2015 8-hour ozone NAAQS, refer to CAA section 181(a), 40 CFR 51.1303, and Additional Air Quality Designations for the 2015 Ozone National Ambient Air Quality Standards, 83 FR 25776 (June 4, 2018, effective August 3, 2018).

applicable attainment date,[23] which is now the Moderate area attainment date under CAA section 181 for ozone nonattainment. The Moderate area attainment date for the 2015 8-hour ozone NAAQS is August 3, 2024.[24] EPA believes that 2023 is now the appropriate year for analysis of interstate transport obligations for the 2015 8-hour ozone NAAQS, because the 2023 ozone season is the last relevant ozone season during which achieved emissions reductions in linked upwind states could assist downwind states with meeting the August 3, 2024, Moderate area attainment date for the 2015 8-hour ozone NAAQS.

EPA recognizes that the attainment date for nonattainment areas classified as Marginal for the 2015 8-hour ozone NAAQS was August 3, 2021. Under the *Maryland* holding, any necessary emissions reductions to satisfy interstate transport obligations should have been implemented by no later than this date. At the time of the statutory deadline to submit interstate transport SIPs (October 1, 2018), many states relied upon EPA modeling of the year 2023, and no state provided an alternative analysis using a 2021 analytic year (or the prior 2020 ozone season). However, EPA must act on SIP submittals using the information available at the time it takes such action. In this circumstance, EPA does not believe it would be appropriate to evaluate states' obligations under CAA section 110(a)(2)(D)(i)(I) as of an attainment date that is wholly in the past, because the Agency interprets the interstate transport provision as forward looking. *See* 86 FR 23054, 23074; *see also Wisconsin,* 938 F.3d at 322. Consequently, in this proposal EPA will use the analytical year of 2023 to evaluate each state's CAA section 110(a)(2)(D)(i)(I) SIP submission with respect to the 2015 8-hour ozone NAAQS.

2. Step 1 of the 4-Step Interstate Transport Framework

In Step 1, EPA identifies monitoring sites that are projected to have problems attaining and/or maintaining the NAAQS in the 2023 analytic year. Where EPA's analysis shows that a site does not fall under the definition of a nonattainment or maintenance receptor, that site is excluded from further analysis under EPA's 4-step interstate transport framework. For sites that are identified as a nonattainment or maintenance receptor in 2023, EPA proceeds to the next step of the 4-step interstate transport framework by identifying the upwind state's contribution to those receptors.

EPA's approach to identifying ozone nonattainment and maintenance receptors in this action is consistent with the approach used in previous transport rulemakings. EPA's approach gives independent consideration to both the ''contribute significantly to nonattainment'' and the ''interfere with maintenance'' prongs of CAA section 110(a)(2)(D)(i)(I), consistent with the D.C. Circuit's direction in *North Carolina* v. *EPA.*[25]

For the purpose of this proposal, EPA identifies nonattainment receptors as those monitoring sites that are projected to have average design values that exceed the NAAQS and that are also measuring nonattainment based on the most recent monitored design values. This approach is consistent with prior transport rulemakings, such as the CSAPR Update, where EPA defined nonattainment receptors as those areas that both currently measure nonattainment and that EPA projects will be in nonattainment in the future analytic year (*i.e.,* 2023).[26]

In addition, in this proposal, EPA identifies a receptor to be a ''maintenance'' receptor for purposes of defining interference with maintenance, consistent with the method used in CSAPR and upheld by the D.C. Circuit in *EME Homer City Generation, L.P.* v. *EPA,* 795 F.3d 118, 136 (D.C. Cir. 2015).[27] Specifically, EPA identified maintenance receptors as those receptors that would have difficulty maintaining the relevant NAAQS in a scenario that takes into account historical variability in air quality at that receptor. The variability in air quality was determined by evaluating the ''maximum'' future design value at each receptor based on a projection of the maximum measured design value over the relevant period. EPA interprets the projected maximum future design value to be a potential future air quality outcome consistent with the meteorology that yielded maximum measured concentrations in the ambient data set analyzed for that receptor (*i.e.,* ozone conducive meteorology). EPA also recognizes that previously experienced meteorological conditions (*e.g.,* dominant wind direction, temperatures, air mass patterns) promoting ozone formation that led to maximum concentrations in the measured data may reoccur in the future. The maximum design value gives a reasonable projection of future air quality at the receptor under a scenario in which such conditions do, in fact, reoccur. The projected maximum design value is used to identify upwind emissions that, under those circumstances, could interfere with the downwind area's ability to maintain the NAAQS.

Recognizing that nonattainment receptors are also, by definition, maintenance receptors, EPA often uses the term ''maintenance-only'' to refer to those receptors that are not nonattainment receptors. Consistent with the concepts for maintenance receptors, as described above, EPA identifies ''maintenance-only'' receptors as those monitoring sites that have projected average design values above the level of the applicable NAAQS, but that are not currently measuring nonattainment based on the most recent official design values. In addition, those monitoring sites with projected average design values below the NAAQS, but with projected maximum design values above the NAAQS are also identified as ''maintenance-only'' receptors, even if they are currently measuring nonattainment based on the most recent official design values.

3. Step 2 of the 4-Step Interstate Transport Framework

In Step 2, EPA quantifies the contribution of each upwind state to each receptor in the 2023 analytic year. The contribution metric used in Step 2 is defined as the average impact from each state to each receptor on the days with the highest ozone concentrations at the receptor based on the 2023 modeling. If a state's contribution value does not equal or exceed the threshold of 1 percent of the NAAQS (*i.e.,* 0.70 ppb for the 2015 8-hour ozone NAAQS), the upwind state is not ''linked'' to a

[23] EPA notes that the court in *Maryland* did not have occasion to evaluate circumstances in which EPA may determine that an upwind linkage to a downwind air quality problem exists at Steps 1 and 2 of the interstate transport framework by a particular attainment date, but for reasons of impossibility or profound uncertainty the Agency is unable to mandate upwind pollution controls by that date. *See Wisconsin,* 938 F.3d at 320. The D.C. Circuit noted in *Wisconsin* that upon a sufficient showing, these circumstances may warrant flexibility in effectuating the purpose of the interstate transport provision.

[24] *See* CAA section 181(a); 40 CFR 51.1303; Additional Air Quality Designations for the 2015 Ozone National Ambient Air Quality Standards, 83 FR 25776 (June 4, 2018, effective August 3, 2018).

[25] *See North Carolina* v. *EPA,* 531 F.3d 896, 910–11 (D.C. Cir. 2008) (holding that EPA must give ''independent significance'' to each prong of CAA section 110(a)(2)(D)(i)(I)).

[26] *See* 81 FR 74504 (October 26, 2016). This same concept, relying on both current monitoring data and modeling to define nonattainment receptor, was also applied in CAIR. *See* 70 FR at 25241, 25249 (January 14, 2005); *see also North Carolina,* 531 F.3d at 913–14 (affirming as reasonable EPA's approach to defining nonattainment in CAIR).

[27] *See* 76 FR 48208 (August 8, 2011). The CSAPR Update and Revised CSAPR Update also used this approach. *See* 81 FR 74504 (October 26, 2016) and 86 FR 23054 (April 30, 2021).

downwind air quality problem, and EPA, therefore, concludes that the state does not significantly contribute to nonattainment or interfere with maintenance of the NAAQS in the downwind states. However, if a state's contribution equals or exceeds the 1 percent threshold, the state's emissions are further evaluated in Step 3, considering both air quality and cost as part of a multi-factor analysis, to determine what, if any, emissions might be deemed ''significant'' and, thus, must be eliminated under CAA section 110(a)(2)(D)(i)(I).

EPA is proposing to rely in the first instance on the 1 percent threshold for the purpose of evaluating a state's contribution to nonattainment or maintenance of the 2015 8-hour ozone NAAQS (*i.e.,* 0.70 ppb) at downwind receptors. This is consistent with the Step 2 approach that EPA applied in CSAPR for the 1997 ozone NAAQS, which has subsequently been applied in the CSAPR Update when evaluating interstate transport obligations for the 2008 ozone NAAQS. EPA continues to find 1 percent to be an appropriate threshold. For ozone, as EPA found in the CAIR, CSAPR, and the CSAPR Update, a portion of the nonattainment problems from anthropogenic sources in the U.S. result from the combined impact of relatively small contributions from many upwind states, along with contributions from in-state sources and, in some cases, substantially larger contributions from a subset of particular upwind states. EPA's analysis shows that much of the ozone transport problem being analyzed in this proposed rule is still the result of the collective impacts of contributions from many upwind states. Therefore, application of a consistent contribution threshold is necessary to identify those upwind states that should have responsibility for addressing their contribution to the downwind nonattainment and maintenance problems to which they collectively contribute. Continuing to use 1 percent of the NAAQS as the screening metric to evaluate collective contribution from many upwind states also allows EPA (and states) to apply a consistent framework to evaluate interstate emissions transport under the interstate transport provision from one NAAQS to the next. *See* 81 FR at 74518 (August 8, 2011); *see also* 86 FR at 23085 (April 30, 2021) (reviewing and explaining rationale from CSAPR, 76 FR at 48237–38 (August 8, 2011), for selection of 1 percent threshold).

EPA's August 2018 memorandum recognized that in certain circumstances, a state may be able to establish that an alternative contribution threshold of 1 ppb is justifiable. Where a state relies on this alternative threshold, and where that state determined that it was not linked at Step 2 using the alternative threshold, EPA will evaluate whether the state provided a technically sound assessment of the appropriateness of using this alternative threshold based on the facts and circumstances underlying its application in the particular SIP submission.

4. Step 3 of the 4-Step Interstate Transport Framework

Consistent with EPA's longstanding approach to eliminating significant contribution or interference with maintenance, at Step 3, states linked at Steps 1 and 2 are generally expected to prepare a multifactor assessment of potential emissions controls. EPA's analysis at Step 3 in prior Federal actions addressing interstate transport requirements has primarily focused on an evaluation of cost-effectiveness of potential emissions controls (on a marginal cost-per-ton basis), the total emissions reductions that may be achieved by requiring such controls (if applied across all linked upwind states), and an evaluation of the air quality impacts such emissions reductions would have on the downwind receptors to which a state is linked; other factors may potentially be relevant if adequately supported. In general, where EPA's or alternative air quality and contribution modeling establishes that a state is linked at Steps 1 and 2, it will be insufficient at Step 3 for a state merely to point to its existing rules requiring control measures as a basis for approval. In general, the emissions-reducing effects of all existing emissions control requirements are already reflected in the air quality results of the modeling for Steps 1 and 2. If the state is shown to still be linked to one or more downwind receptor(s), states must provide a well-documented evaluation determining whether their emissions constitute significant contribution or interference with maintenance by evaluating additional available control opportunities by preparing a multifactor assessment. While EPA has not prescribed a particular method for this assessment, EPA expects states at a minimum to present a sufficient technical evaluation. This would typically include information on emissions sources, applicable control technologies, emissions reductions, costs, cost effectiveness, and downwind air quality impacts of the estimated reductions, before concluding that no additional emissions controls should be required.[28]

5. Step 4 of the 4-Step Interstate Transport Framework

At Step 4, states (or EPA) develop permanent and federally enforceable control strategies to achieve the emissions reductions determined to be necessary at Step 3 to eliminate significant contribution to nonattainment or interference with maintenance of the NAAQS. For a state linked at Steps 1 and 2 to rely on an emissions control measure at Step 3 to address its interstate transport obligations, that measure must be included in the state's implementation plan so that it is permanent and federally enforceable. *See* CAA section 110(a)(2)(D) (''Each such [SIP] shall . . . contain adequate provisions. . . .''). *See also* CAA section 110(a)(2)(A); *Committee for a Better Arvin* v. *EPA,* 786 F.3d 1169, 1175–76 (9th Cir. 2015) (holding that measures relied on by a state to meet CAA requirements must be included in the SIP).

II. Summary of Kentucky's 2015 8-Hour Ozone Interstate Transport SIP Submission

On January 11, 2019, Kentucky submitted a SIP revision, a portion of which addressed the CAA section 110(a)(2)(D)(i)(I) interstate transport requirements for the 2015 8-hour ozone NAAQS. The Commonwealth's SIP submission provided Kentucky's analysis of its impact to downwind states and concluded that the Commonwealth had met the requirements of CAA section l10(a)(2)(D)(i)(I) (*i.e.,* prongs 1 and 2) because Kentucky's SIP contains adequate provisions to prevent sources and other types of emissions activities within the Commonwealth from significantly contributing to nonattainment, or interfering with the maintenance, of downwind states with respect to the 2015 8-hour ozone NAAQS.

The Commonwealth's submission relied on the results of EPA's modeling of the year 2023, contained in the March 2018 memorandum, to identify downwind nonattainment and

[28] As examples of general approaches for how such an analysis could be conducted for their sources, states could look to the CSAPR Update, 81 FR 74504, 74539–51; CSAPR, 76 FR 48208, 48246–63; CAIR, 70 FR 25162, 25195–229; or the NO_X SIP Call, 63 FR 57356, 57399–405. *See also* Revised CSAPR Update, 86 FR 23054, 23086–23116. Consistently across these rulemakings, EPA has developed emissions inventories, analyzed different levels of control stringency at different cost thresholds, and assessed resulting downwind air quality improvements.

maintenance receptors that may be ''linked'' to emissions from sources in Kentucky (which correlates to Step 1 of the 4-step framework).[29] The March 2018 modeling indicates that the Commonwealth was linked to four nonattainment receptors and one maintenance monitor above 1% of the NAAQS. The largest impact from Kentucky sources on any downwind nonattainment receptor in the East was projected to be 0.89 ppb at the Fairfield County, Connecticut (ID: 90013007) site. The other nonattainment receptors to which Kentucky was linked are: a second site in Fairfield County (ID: 90019003); Milwaukee, Wisconsin (ID: 550790085); and Sheboygan, Wisconsin (ID: 551170006). The impact from Kentucky sources on the one downwind maintenance-only receptor to which it was linked in that modeling was 1.52 ppb at the Harford County, Maryland monitor (ID: 240251001).

The Commonwealth reviewed EPA's August 2018 memorandum as it related to the use of a potential alternative contribution threshold of 1 ppb and agreed that use of a 1 ppb contribution threshold is comparable to the amount of collective contribution captured using a threshold equivalent to 1 percent of the NAAQS. Based on the March 2018 modeling and application of a 1 ppb alternative contribution threshold, the Commonwealth found that it would not be linked as a significant contributor to the four nonattainment receptors in Connecticut and Wisconsin (which correlates to EPA's Step 2), and therefore concluded that no further controls were required to address its contribution to those four receptors. Thus, the Commonwealth concluded that Kentucky's SIP contains adequate provisions to prevent sources and other types of emissions activities within the Commonwealth from contributing significantly to nonattainment in any other state (*i.e.,* ''prong 1'' of CAA section l10(a)(2)(D)(i)(I)) for the 2015 8-hour ozone NAAQS.

After application of the 1 ppb contribution threshold, Kentucky remained linked to the downwind maintenance-only receptor at Harford County, Maryland (ID: 240251001) because the Commonwealth's contribution of 1.52 ppb to this receptor was greater than the 1 ppb alternative threshold. Kentucky's SIP submission asserted that the amount of NO_X emission reductions required for an upwind state should not be the same for a monitor that is already attaining the NAAQS as they are for a nonattainment monitor. The Commonwealth further asserted that local controls should be implemented before requiring upwind states to control their sources. Thus, Kentucky concluded that no further reductions other than on-the-books and on-the-way measures are required to address the Commonwealth's interstate transport obligation to eliminate its contribution to the Harford County, Maryland maintenance receptor.

In addition, Kentucky provided information intended to demonstrate that Kentucky's SIP contains adequate provisions to prevent sources and other types of emissions activities within the Commonwealth from significantly contributing to nonattainment, or interfering with the maintenance, of downwind states with respect to the 2015 8-hour ozone NAAQS, and thus, no additional emissions reductions from Kentucky are necessary. Specifically, Kentucky listed existing state, SIP-approved regulations and Federal programs for sources in the Commonwealth that it concluded address the requirements of CAA 110(a)(2)(D)(i)(I) for the 2015 8-hour ozone NAAQS.[30] Kentucky provided more detailed analyses related to several specific topics, which are summarized in sections below.

The Commonwealth also included documents attached as appendices to its submittal. The March 2018 memorandum and the August 2018 memorandum were attached at appendices A and B, respectively.[31] As Appendix C, the Commonwealth appended several documents developed and/or submitted by the Midwest Ozone Group (a consortium of upwind industries with emitting facilities).[32] This included a modeling analysis developed by Alpine Geophysics titled ''Good Neighbor Modeling Technical Support Document for the 8-hour Ozone State Implementation Plans,'' dated June 2018 (Alpine TSD). The Alpine TSD contains alternative modeling of 2023 performed by Alpine Geophysics sponsored by MOG, as well as additional policy suggestions that MOG suggested states could consider in developing good neighbor SIP submissions (see section 9 of the Alpine TSD).[33] The Alpine TSD also appended a separate set of MOG comments on EPA's March 2018 memorandum.[34] These comments and Alpine's modeling analysis were further summarized in a Microsoft PowerPoint Presentation titled ''MOG's Preview of 2015 Ozone NAAQS Good Neighbor SIPs.'' EPA also summarizes the materials developed by MOG that the Commonwealth included as Appendix C to its submittal, although it is unclear that Kentucky intended to rely on all aspects of these materials.

A. Information Related to Emission Trends From Kentucky Sources

With respect to ozone precursors emitted from Kentucky sources, Kentucky focused its analysis on NO_X emissions, as it found that ozone is far more sensitive to NO_X emissions than VOC emissions in the Southeastern United States and that controlling NO_X emissions is a more effective strategy in reducing ozone. Kentucky reviewed NO_X emissions trends in the Commonwealth, comparing annual NO_X emissions from 2008 to 2016, finding that NO_X emissions in Kentucky have significantly decreased since 2008. The Commonwealth asserted that it has significantly lowered NO_X emissions between 2008 and 2017 [35] and contended that planned shutdowns and

[29] EPA notes that Kentucky's SIP submission is not organized around EPA's 4-step framework for assessing good neighbor obligations, but EPA summarizes the submission using that framework for clarity here.

[30] See Kentucky's January 11, 2019, SIP submission, at pages 20 through 30 for the list of state, SIP-approved regulations and Federal programs identified by Kentucky.

[31] See the following Appendices to Kentucky's January 11, 2019, submission: Appendix A—Information on the Interstate Transport State Implementation Plan Submissions for the 2015 Ozone National Ambient Air Quality Standards under Clean Air Act Section 110(a)(2)(D)(i)(I), March 27, 2018 (''March 2018 memorandum''); Appendix B—Analysis of Contribution Thresholds for Use in Clean Air Act Section 110(a)(2)(D)(i)(I) Interstate Transport State Implementation Plan Submissions for the 2015 Ozone National Ambient Air Quality Standards, August 31, 2018; and Appendix D—Public Hearing & Statement of Consideration.

[32] See Appendix C to Kentucky's January 11, 2019, submission—Midwest Ozone Group Technical Support Document: ''Good Neighbor Modeling Technical Support Document for 8-Hour Ozone Implementation Plans.''

[33] It is unclear whether Kentucky intends to rely on all of the data and policy approaches in Appendix C as included in its submittal, or if these documents were appended solely to support specific policy and technical arguments relied on by Kentucky in its submittal.

[34] See the following Appendices to Appendix C—Midwest Ozone Group Technical Support Document: ''Good Neighbor Modeling Technical Support Document for 8-Hour Ozone Implementation Plans of Kentucky's January 11, 2019: Appendix A—4km Modeling Results for Mid-Atlantic and Lake Michigan Domains Compared to EPA 12 km ''No Water'' Design Value Calculations from March 2018 Memorandum; Appendix B—Midwest Ozone Group Comments on EPA's March 27, 2018 Memorandum Entitled ''Information on the Interstate Transport State Implementation Plan Submissions for the 2015 Ozone National Ambient Air Quality Standards under Clean Air Act Section 110(a)(2)(D)(i)(I); Appendix C—Presentation—Midwest Ozone Group Preview of 2015 Ozone NAAQS Good Neighbor SIPs.

[35] Table 2 in Kentucky's SIP provides historic annual NO_X emissions data for point sources in the state from 2008 through 2016, however, the associated graph at Chart 1 indicates annual NO_X emissions from 2008 through 2017.

conversion to natural gas, along with the implementation of Federal and State programs, ensure Kentucky's emissions will continue to decrease. Based on the 2014 national emission inventory (NEI), Kentucky indicated that the major contributor of NO_X emissions in the Commonwealth are point sources, mainly comprised of electric generating units (EGUs).

Kentucky asserted that NO_X emissions from EGUs in the Commonwealth have decreased and would continue to decrease based, in part, on the implementation of CAIR, CSAPR, and the CSAPR Update, as well as retirements of several EGUs in the Commonwealth. The Commonwealth compared Kentucky's NO_X ozone season allocations to actual EGU emissions in the Commonwealth, concluding that Kentucky's NO_X ozone season budgets have decreased since the implementation of CSAPR and the CSAPR Update and actual ozone season NO_X emissions are significantly lower than the trading program budgets.[36] The SIP submission summarized coal-fired unit retirements, shutdowns, and repowering from 2015 through 2017 as well as on-the-way reductions from natural gas conversions and retirements from 2017 through 2023.[37] Kentucky stated that it expected emissions will continue to decline in the future due to continued implementation of CSAPR, the CSAPR Update, and scheduled shutdowns, fuel switches, and retirements of facilities in the Commonwealth.

B. Information Related to Connecticut Monitors Provided by Kentucky

EPA's March 2018 modeling showed Kentucky linked to the two receptors located in Fairfield County, Connecticut, which is part of the New York-Northern New Jersey-Long Island, NY-NJ-CT (New York Metro Area) core based statistical area (CBSA).[38] Kentucky applied an alternative contribution threshold of 1 ppb, and thus determined that Kentucky was no longer linked to the Connecticut receptors. In addition, Kentucky provided information intended to demonstrate that emissions from local sources in the area surrounding the monitors contribute significantly to the continued nonattainment issues, and thus, that local controls should be implemented before requesting upwind states to control facilities.

In particular, Kentucky's SIP submission claims that the Westport Sherwood, Fairfield, Connecticut (ID: 90019003) and Stratford Point Lighthouse, Fairfield County (ID: 90013007) monitors are located less than three miles from the I–95 interstate highway corridor and over 500 miles from Kentucky. Kentucky asserted these monitors have a consistent pattern of violating the 2015 8-hour ozone NAAQS from 2007 to 2016. Kentucky also pointed out that it is not linked in the modeling to two other nonattainment receptors (the Greenwich Point Park and Criscuolo Park monitoring sites) that are in relatively close proximity to the Westport and Stratford monitors. Kentucky compared the distances between these sites with the distances of the sites to Kentucky's nearest border.

Kentucky's SIP submission also provided information related to the New York Metro Area, citing the 2014 NEI to state that the on-road source sector contributed the highest amount of NO_X emissions and that the nonpoint source sector contributed the highest amount of VOC emissions in that area. The Commonwealth further provided information about high vehicle miles traveled (VMT) and commuting patterns in the New York Metro Area, as well as information regarding violating monitors along the I–95 corridor and outlying monitors that show attainment.

Additionally, Kentucky's SIP submission includes Hybrid Single Particle Lagrangian Integrated Trajectory (HYSPLIT) model back trajectory analysis to the two Connecticut receptors,[39] asserting that the HYSPLIT analysis indicates that the monitors are downwind of nonattainment areas in New York, New Jersey, Pennsylvania, and Maryland. The Commonwealth also asserted there is a consistent pattern of violating monitors located along the I–95 corridor. In addition, Kentucky asserted that pollutants are trapped in the marine boundary layer and then transported inland to coastal Connecticut receptors due to conditions on Long Island Sound.

The Commonwealth's SIP submission also discussed point sources in the New York Metro Area, providing information regarding the largest point sources in that area. In addition, Kentucky provided NO_X and VOC emission information for 13 counties in the New York Metro Area that have NO_X and VOC emission totals above 10,000 tpy, finding that three counties that surround Fairfield County (Suffolk, Queens, and Nassau Counties) had the highest NO_X emissions.

Kentucky further evaluated high electric demand days in New York, discussing a New York Department of Environmental Conservation (NYDEC) determination that peaking units operating on peak electricity demand days are a major contributor of NO_X (particularly units installed before 1987), and that such units can contribute 4.8 ppb of ozone on high ozone days.[40] Kentucky concluded NO_X emission reductions from these EGUs point sources would have a significant impact on ozone levels in the New York Metro Area.

C. Information Related to the Harford, Maryland Monitor Provided by Kentucky

Kentucky acknowledged that EPA's March 27, 2018 modeling shows the potential for Kentucky emissions to significantly contribute to the Edgewood, Harford County, Maryland (ID: 240251001) maintenance-only monitor (Edgewood monitor) in 2023. However, Kentucky provided air quality data designed to demonstrate that emissions from local sources in the area surrounding the monitors contribute significantly to the continued air quality issues and concluded that there are local controls that should be implemented before requesting upwind states to control facilities.

Kentucky provided additional information with respect to the Edgewood Monitor, which is located 3 miles from the I–95 corridor and approximately 350 miles from Kentucky. Kentucky provided data to show that the Edgewood monitor consistently violated the 2015 8-hour ozone standard from 2007 to 2016. Kentucky also provided information related to other nonattainment monitors located in Baltimore County and Harford County.

The Commonwealth's SIP submission provided data related to the Baltimore-

[36] Kentucky's SIP acknowledged that the CSAPR trading program does not address interstate transport for the 2015 standard but nonetheless provides NO_X emission reductions.

[37] See Kentucky's January 11, 2019, submittal located in Docket No. EPA–R04–OAR–2021–0841, at pages 32–33 for discussion on implementation of CSAPR, the CSAPR Update, EGU retirements, and EGU fuel switches.

[38] EPA's designations for the 2015 8-hour ozone standard divided the state into two areas, Greater Connecticut, CT, with a marginal classification, and New York-Northern New Jersey-Long Island, NY-NJ-CT (New York Metro Area), with a moderate classification. *See https://www.epa.gov/ozone-designations/additional-designations-2015-ozone-standards.*

[39] According to Kentucky, the HYSPLIT analysis were generated using EPA's 2015 Ozone Designation Mapping Tool, available at *https://www.epa.gov/ozone-designations/ozone-designations-guidance-and-data#:~:text=The%20ozone%20designations%20mapping%20tool,for%20the%202015%20Ozone%20NAAQS.*

[40] Kentucky references NYDEC emission analysis entitled ''Background, High Electric Demand Day (HEDD) Initiative'', New York Department of Environmental Conservation.

Columbia-Towson, MD CBSA (Baltimore Area), citing to the 2014 NEI to state that the on-road source sector contributed the highest amount of NO_X emissions and that the nonpoint source sector contributed the highest amount of VOC emissions in that area. Kentucky further provided information about VMTs and commuting patterns in the Baltimore Area, as well as information regarding violating monitors along the I–95 corridor and outlying monitors that show attainment. The SIP submission asserted that local mobile emissions are a key contributor to the Edgewood monitor, which is also located in close proximity to the 1–95 corridor. Kentucky further cited to a presentation and remarks by Maryland officials, discussing programs to reduce emissions from local sources, specifically focusing on mobile source NO_X reduction programs.

Kentucky cited a 2010 case study in the Chesapeake Bay that suggests the transport of pollution from nearby urban areas accumulates over the Bay and becomes stagnant, creating a bay breeze which is pushed by southerly winds northward towards the Edgewood monitor. Additionally, Kentucky's SIP submission also provided HYSPLIT model back trajectory analysis to the Edgewood receptor,[41] asserting that the HYSPLIT indicates that the monitors are downwind of nonattainment areas in Baltimore County, Baltimore City, Arlington County, and the District of Columbia. Kentucky also asserted that higher altitude particles from the northwest of Baltimore combine with lower-level particles from the south and southeast.

Kentucky's submission used information on local mobile emissions along the I–95 corridor and coastal air pollution formation and accumulation along the Maryland coast to support its conclusion that local air quality problems are the source of ozone violations at these monitors.

Additionally, Kentucky asserted that the implementation of local programs to reduce emissions should be sufficient for monitors in the Maryland area to attain the 2015 8-hour ozone NAAQS. Kentucky cited claims by MOG (appended to the submittal in Appendix C) that the modeling in EPA's March 2018 memorandum does not account for additional retirements, conversions, and modifications or emission control programs expected to be implemented before 2023. Kentucky concluded that because the Edgewood monitor is a maintenance receptor, the Commonwealth believes that no further reductions from Kentucky sources other than on-the-books controls should be required because maintenance receptors should be treated differently than nonattainment receptors in terms of upwind requirements. The Commonwealth also asserted that states linked to maintenance receptors should be held to less stringent standards of emissions reductions as compared to states linked to a nonattainment receptor.

The Commonwealth also asserted that local emission controls should be implemented before upwind states are required to control their facilities, which is based on Kentucky's concurrence with statements from MOG. The Commonwealth cited MOG's comments on local controls stating: ''When an area is measuring nonattainment of a NAAQS, as is the case with the areas linked to Kentucky, the CAA requires that the effects and benefits of local controls on all source sectors be considered first, prior to pursuing controls of sources in upwind states.'' [42] The Commonwealth concluded that the emissions reductions resulting from on-the-books and on-the-way measures are adequate to prohibit emissions within Kentucky from interfering with the maintenance of downwind states with respect to the 2015 8-hour ozone NAAQS.

D. Summary of Conclusions From Kentucky

In summary, based on Kentucky's reliance on the modeling results in EPA's March 2018 memorandum, the Commonwealth found that emissions from Kentucky sources were potentially linked to four nonattainment monitors in Connecticut and Wisconsin and one maintenance receptor in Harford County, Maryland. However, after utilizing a 1 ppb alternative contribution threshold, the Commonwealth concluded that it was no longer linked to the four nonattainment monitors, and thus, that the Kentucky SIP contains adequate provisions to prevent sources and other types of emissions activities within the State from contributing significantly to nonattainment in any other state (*i.e.,* ''prong 1'' of CAA section 110(a)(2)(D)(i)(I)) for the 2015 8-hour ozone NAAQS. Although modeling results indicated that Kentucky remained linked to the maintenance-only receptor in Harford County, Maryland, even after the application of the 1 ppb alternative threshold, Kentucky asserted that states should not be required to apply the same degree of reductions for maintenance receptors as nonattainment areas, and determined that additional NO_X emission reductions other than those that are on-the-books or on-the-way are not required to address its downwind contribution to that receptor. Kentucky further provided an assessment of local sources in the vicinity of the Connecticut and Maryland monitors and concluded that local (particularly mobile) emissions, high VMTs and commuting patterns, and weather patterns are the primary cause of violating monitors in these areas. Therefore, Kentucky concluded that its SIP has adequate provisions to prohibit emissions from interfering with maintenance in another state (*i.e.,* ''prong 2'' of CAA section 110(a)(2)(D)(i)(I)) with respect to the 2015 8-hour ozone NAAQS.

E. Summary of Midwest Ozone Group TSD Appended to Kentucky's Submittal

Kentucky attached several materials developed by MOG to its submittal as Appendix C, which included a document titled '' 'Good Neighbor' Modeling Technical Support Document for 8-Hour Ozone State Implementation Plans'' prepared by Alpine Geophysics.[43] The Alpine Geophysics document also attached the following documents: 4 kilometer (km) modeling results for mid-Atlantic and Lake Michigan domains compared to EPA 12 km ''No Water'' Design Value Calculations from March 2018 memorandum (Appendix A); MOG comments on EPA's March 2018 memorandum (Appendix B); and a Microsoft PowerPoint presentation from MOG previewing 2015 8-hour ozone NAAQS good neighbor SIPs (Appendix C). EPA notes a number of modeling results and technical and policy arguments provided in the MOG attachments are not explicitly discussed in Kentucky's SIP submission narrative. Therefore, it is unclear whether Kentucky intended to rely on Alpine's modeling or MOG's policy argument to support the Commonwealth's overall transport SIP conclusions. To ensure review of all potentially relevant technical and policy issues identified in Kentucky's SIP package, this section summarizes key arguments presented in

[41] According to Kentucky, the HYSPLIT analysis were generated using EPA's 2015 Ozone Designation Mapping Tool, available at *https://www.epa.gov/ozone-designations/ozone-designations-guidance-and-data#:~:text=The%20ozone%20designations%20mapping%20tool,for%20the%202015%20Ozone%20NAAQS.*

[42] Kentucky's SIP references MOG's comments that cite CAA sections 107(a) and 110(a)(1).

[43] *See* Appendix C of Kentucky's January 11, 2019, transport SIP submission.

Appendix C. However, in EPA's evaluation of the SIP submittal in section III, EPA will differentiate between those positions clearly adopted by the Commonwealth and those where it is unclear and therefore a position espoused by MOG cannot be attributed to Kentucky.

Appendix C included modeling results performed by Alpine Geophysics as presented in the Alpine TSD. The Alpine modeling results identified the Harford, Maryland receptor as a nonattainment receptor, with Kentucky emissions contributing 2.07 ppb. In addition, the Alpine modeling results identified Kentucky linkages above 1 percent to the following maintenance-only receptors: Gloucester, New Jersey (ID: 340150002), with a Kentucky contribution of 1.69 ppb; Richmond, New York (ID: 360850067), with a Kentucky contribution of 0.93; and Philadelphia, Pennsylvania (ID: 421010024), with a Kentucky contribution of 1.53. (While MOG asserts in separate comments that emission reductions not accounted for in EPA's modeling suggests there will be no receptors by 2023, this is not consistent with Alpine's modeling.)

The Alpine TSD also evaluated additional approaches and flexibilities that states could apply in SIP revisions, based on the potential concepts provided in Appendix A of EPA's March 2018 memorandum.[44] These included reliance on alterative modeling data, evaluation of international contributions (both anthropogenic contribution and as an additional percentage of boundary conditions), alternate contribution thresholds, proportional control of upwind emissions by level of upwind state contribution, and addressing interference with maintenance obligations through use of 10-year projections.

MOG suggested states should be allowed to select multiple sources of modeling data rather than a single modeling simulation if such information is considered equally credible when making policy decisions related to the development of good neighbor SIPs.

With respect to international emissions, MOG cited to an attachment to EPA's 2018 memorandum and asserts that EPA's and Alpine's contribution modeling tracks and reports the relative impact contributions of anthropogenic emissions located within the 36 km modeling domain. Considering this information, MOG concluded that states seeking to avoid overcontrol may wish to consider removing that portion of the projected design value that is explicitly attributed to international anthropogenic contribution, which may be enough to demonstrate attainment with the 2008 or 2015 8-hour ozone NAAQS at multiple monitors in the U.S.

With respect to potential use of alternative contribution thresholds, MOG pointed to states raising concerns that the 1 percent threshold is more stringent than the 2016 EPA Significant Impact level (SIL) guidance of 1 ppb, which is designed as an individual source or group of sources' contribution limit (in the context of prevention of significant deterioration (PSD) permitting).[45] MOG suggested that states could submit SIP revisions citing the SIL of 1 ppb as an acceptable total state anthropogenic contribution threshold under Step 2 of the 4-step process, and request relief from the 1 percent threshold in lieu of using an alternate value.

MOG presented an alternative approach to how upwind-state emission reduction obligations could be allocated. Specifically, MOG proposed that upwind reductions could be allocated in proportion to the size of their contribution to downwind nonattainment. To illustrate this approach, MOG determined a proportional reduction requirement associated with the relative contribution from each upwind state to the Harford County, Maryland monitor. Under this analysis, MOG's approach indicated that Kentucky would be responsible for a 0.02 ppb reduction at the monitor and ''would then need to craft a [good neighbor SIP] revision to generate reductions associated with this proportional amount.''

With respect to ''interference with maintenance'' obligations, MOG suggested that an upwind state could choose to indicate that no additional controls would be needed to address a maintenance monitor if the upwind state can show that either the monitor is likely to remain in attainment for a period of 10 years or that the upwind state's emissions will not increase for 10 years after the attainment date.

III. EPA's Evaluation of Kentucky's 2015 8-Hour Ozone Interstate Transport SIP Submission

EPA is proposing to find that Kentucky's January 11, 2019, SIP submission does not meet the Commonwealth's obligations with respect to prohibiting emissions that contribute significantly to nonattainment or interfere with maintenance of the 2015 8-hour ozone NAAQS in any other state based on EPA's evaluation of the SIP submission using the 4-step interstate transport framework, and therefore EPA is proposing to disapprove Kentucky's SIP submission.

A. Results of EPA's Step 1 and Step 2 Modeling and Findings for Kentucky

As described in section I, EPA performed updated air quality modeling to project design values and contributions for 2023. These data were examined to determine if Kentucky contributes at or above the threshold of 1 percent of the 2015 8-hour ozone NAAQS (0.70 ppb) to any downwind nonattainment or maintenance receptor. As shown in Table 1, the data[46] indicate that in 2023, emissions from Kentucky contribute greater than 1 percent of the standard to nonattainment or maintenance-only receptors in Bucks County, Pennsylvania (ID: 420170012), New Haven County, Connecticut (ID: 90099002), and Fairfield County, Connecticut (ID: 90019003 and 90013007).[47]

[44] *See* Section 9.0—Selected SIP Revision Approaches in Appendix C—MOG's TSD of Kentucky's January 11, 2019 transport SIP submission.

[45] MOG cited to the Georgia Environmental Protection Division's comment on EPA's March 2018 Memorandum to support this claim. *See* Section 9.0—Selected SIP Revision Approaches in Appendix C—MOG's TSD of Kentucky's January 11, 2019 transport SIP submission, *citing* Boylan, J. W. (May 4, 2018). Georgia EPD Comments on EPA's March 27, 2018 Interstate Transport Memo [Memorandum].

[46] The ozone design values and contributions at individual monitoring sites nationwide are provided in the file ''2016v2_DVs_state_contributions.xlsx'' which is included in Docket No. EPA–HQ–OAR–2021–0663.

[47] These modeling results are consistent with the results of a prior round of 2023 modeling using the 2016v1 emissions platform which became available to the public in the fall of 2020 in the Revised CSAPR Update, as noted in section I. That modeling showed that Kentucky had a maximum contribution greater than 0.70 ppb to at least one nonattainment or maintenance-only receptor in 2023. These modeling results are included in the file ''Ozone Design Values And Contributions Revised CSAPR Update.xlsx'' in Docket No. EPA–HQ–OAR–2021–0663.

TABLE 1—KENTUCKY LINKAGE RESULTS BASED ON EPA UPDATED 2023 MODELING

Receptor ID	Location	County	Nonattainment/ maintenance	2023 average design value (ppb)	2023 maximum design value (ppb)	Kentucky contribution (ppb)
420170012	Pennsylvania	Bucks	Maintenance	70.7	72.2	0.88
90099002	Connecticut	New Haven	Nonattainment	71.8	73.9	0.83
90019003	Connecticut	Fairfield	Nonattainment	76.1	76.4	0.82
90013007	Connecticut	Fairfield	Nonattainment	74.2	75.1	0.77

B. Evaluation of Information Provided by Kentucky Regarding Step 1

At Step 1 of the 4-step interstate transport framework, Kentucky relied on EPA modeling released in the March 2018 memorandum to identify nonattainment and maintenance receptors in 2023 and also included results from modeling performed by Alpine. As described previously in this notice, EPA has recently updated its 2023 modeling using the most current and technically appropriate information. EPA proposes to rely on EPA's most recent modeling to identify nonattainment and maintenance receptors in 2023. However, even using EPA modeling available to Kentucky at the time of its SIP submittal, three nonattainment receptors and one maintenance-only receptor were projected in 2023 to which Kentucky was linked above 1 percent of the NAAQS. In addition, the Alpine modeling that Kentucky appended to its submittal also indicated that Kentucky was linked to several receptors in 2023.[48] Kentucky appended comments from MOG arguing that states should be allowed to select multiple sources of modeling data rather than a single modeling simulation if such information is considered equally credible when making policy decisions related to the development of good neighbor SIPs. Whether EPA's most recent 2023 modeling is relied on, or whether it is considered in conjunction with its older 2023 modeling and/or the Alpine modeling, the results consistently identify several nonattainment or maintenance receptors to which Kentucky is linked above 1 percent of the 2015 8-hour ozone NAAQS.

As discussed in section II.E, Kentucky attached documents from MOG that discussed international transport of emissions and their contribution to U.S. ozone monitors, and argued that states could remove that portion of the projected design value explicitly attributed to international anthropogenic contribution. MOG asserted that excluding the international anthropogenic contributions could result in attainment with the 2008 or 2015 8-hour ozone NAAQS at ozone monitors in the United States, thus potentially eliminating 2023 receptors. Kentucky did not explicitly discuss in its SIP submittal MOG's arguments regarding contributions from international emissions and therefore it is unclear if the Commonwealth intended to rely on this argument to support their conclusion, however, EPA is providing its analysis related to these arguments.

EPA disagrees that excluding international contribution (whether from North American international anthropogenic, boundary conditions, or other international sources) from the projected design value of receptors is acceptable under the CAA.[49] The good neighbor provision requires states and EPA to address interstate transport of air pollution that *contributes to* downwind states' ability to attain and maintain NAAQS. Whether emissions from other states or other countries also contribute to the same downwind air quality issue is irrelevant in assessing whether a downwind state has an air quality problem, or whether an upwind state is significantly contributing to that problem. States are not obligated under CAA section 110(a)(2)(D)(i)(I) to reduce emissions sufficient on their own to resolve downwind receptors' nonattainment or maintenance problems. Rather, states are obligated to eliminate their own ''significant contribution'' or ''interference'' with the ability of other states to attain or maintain the NAAQS.

Indeed, the D.C. Circuit in *Wisconsin* specifically rejected petitioner arguments suggesting that upwind states should be excused from good neighbor obligations on the basis that some other source of emissions (whether international or another upwind state) could be considered the ''but-for'' cause of downwind air quality problem. *See* 938 F.3d at 323–324. The court viewed petitioners' arguments as essentially an argument ''that an upwind State 'contributes significantly' to downwind nonattainment only when its emissions are the sole cause of downwind nonattainment.'' *See* 938 F.3d at 324. The court explained that ''an upwind State can 'contribute' to downwind nonattainment even if its emissions are not the but-for cause.'' *Id.* at 324–325. *See also Catawba County* v. *EPA,* 571 F.3d 20, 39 (D.C. Cir. 2009) (rejecting the argument ''that 'significantly contribute' unambiguously means 'strictly cause' '' because there is ''no reason why the statute precludes EPA from determining that [an] addition of [pollutant] into the atmosphere is significant even though a nearby county's nonattainment problem would still persist in its absence''); *Miss. Comm'n on Envtl. Quality* v. *EPA,* 790 F.3d 138, 163 n.12 (D.C. Cir. 2015) (observing that the argument that ''there likely would have been no violation at all . . . if it were not for the emissions resulting from [another source]'' is ''merely a rephrasing of the but-for causation rule that we rejected in *Catawba County*.''). Therefore, a state is not excused from eliminating its significant contribution on the basis that international emissions also contribute some amount of pollution to the same receptors to which the state is linked.

C. Evaluation of Information Provided by Kentucky Regarding Step 2

At Step 2 of the 4-step interstate transport framework, Kentucky relied on EPA modeling released in the March 2018 memorandum to identify upwind state linkages to nonattainment and maintenance receptors in 2023 and included results from modeling run by

[48] The Alpine modeling results identified the Harford, Maryland receptor as a nonattainment receptor, with Kentucky emissions contributing 2.07 ppb. In addition, the Alpine modeling results identified Kentucky linkages above 1 percent to the following maintenance-only receptors: Gloucester, New Jersey (ID: 340150002), with a Kentucky contribution of 1.69 ppb; Richmond, New York (ID: 360850067), with a Kentucky contribution of 0.93; and Philadelphia, Pennsylvania (ID: 421010024), with a Kentucky contribution of 1.53.

[49] To the extent that MOG cited Attachment A to EPA's March 2018 memorandum as suggesting support for this approach, this is incorrect. As discussed in section I.D, the attachment summarized ideas from outside stakeholders, and EPA did not endorse such approaches as technically or legally appropriate. Further, nothing in Attachment A suggested that international contribution could simply be subtracted from a downwind receptor's projected design value.

Alpine. Both EPA's modeling released in the March 2018 memorandum as well as Alpine's modeling indicate that Kentucky is linked to downwind monitors.[50] As Kentucky attached Alpine's modeling without discussing it in the narrative of the submittal, it is unclear whether Kentucky intended to rely on Alpine's modeling in its submittal.

As described in section I.C of this notice, EPA has recently updated modeling to identify upwind state contributions to nonattainment and/or maintenance receptors in 2023. In this notice, EPA proposes to rely on the Agency's most recently available modeling to identify upwind contributions and ''linkages'' to downwind air quality problems in 2023 using a threshold of 1 percent of the NAAQS. *See* section I.D for a general explanation of the use of 1 percent of the NAAQS.

As shown in Table 1, updated EPA modeling identifies Kentucky's maximum contribution to a downwind nonattainment or maintenance receptor is greater than 1 percent of the standard (i.e., 0.70 ppb).

Kentucky, however, argued in its SIP submittal for the use of an alternative 1 ppb contribution threshold at Step 2 to attempt to demonstrate that it was no longer ''linked'' to projected downwind nonattainment receptors. Specifically, Kentucky cited EPA's August 2018 memorandum as supporting the use of a 1 ppb alternative contribution threshold at Step 2 to assert that the Commonwealth was no longer ''linked'' to projected downwind nonattainment receptors, while conceding that even under this alternative threshold, it was linked above 1 ppb to the projected Harford, Maryland maintenance-only receptor. EPA's most recent modeling of 2023 no longer identifies the Harford, Maryland monitoring site as either a maintenance or nonattainment receptor. Nonetheless, Kentucky is linked above 1 percent of the NAAQS but less than 1 ppb to the four receptors in EPA's most recent modeling. Therefore, whether Kentucky's use of an alternative 1 ppb contribution threshold is approvable is potentially a dispositive question in EPA's evaluation.

EPA proposes to find that Kentucky's reliance on an alternative contribution threshold of 1 ppb at Step 2 is not approvable. EPA acknowledges that the August 2018 memorandum generally recognized that a 1 ppb threshold may be appropriate for states to use, but also made clear that this guidance would be applied under the facts and circumstances of each particular SIP submittal.[51] However, Kentucky did not provide a technical analysis to sufficiently justify use of an alternative 1 ppb threshold at the linked, downwind monitors. Kentucky's SIP submission simply stated that the Commonwealth agrees with EPA's rationale set out in the August 2018 memorandum that the amount of upwind collective contribution captured with the 1 percent and 1 ppb thresholds was generally comparable. But the guidance anticipated that states would evaluate whether the alternative threshold was appropriate under their specific facts and circumstances, not that the use of the alternative threshold would be automatically approvable.[52] With respect to the assertion that 1 ppb was generally comparable to 1 percent, Kentucky did not provide discussion or analysis containing information specific to Kentucky or a receptor analysis for the affected monitors, as anticipated in the 2018 memorandum, to evaluate whether the alternative threshold was appropriate to apply with respect to the monitors to which Kentucky was linked. Such state-specific information is necessary to thoroughly evaluate the state-specific circumstances that could support approval. Given the absence of technical analysis to support the use of a 1 ppb threshold under the facts and circumstances relevant to Kentucky and its linked receptors, EPA proposes that the use of 1 ppb as a contribution threshold is not approvable.[53] (As discussed in section III.C.1 below, EPA no longer intends to dedicate resources to supplement state submittals with insufficient analysis in this regard, and also has identified other policy and programmatic concerns with attempting to recognize alternative thresholds at Step 2 or otherwise deviating from its historical, consistent practice since CSAPR of applying a threshold of 1 percent of the NAAQS at Step 2.)

The MOG materials appended to Kentucky's submission argued that a 2016 EPA SIL guidance could be cited as acceptable to support a 1 ppb contribution threshold. As an initial matter, Kentucky appears not to have relied on this rationale. In EPA's comments on Kentucky's draft SIP submittal, EPA stated, ''EPA has not made a determination that the SIL, developed for source-specific (PSD) purposes, could be considered an appropriate threshold to use when assessing contribution from an entire state.'' [54] Kentucky stated in response that it ''concurs with the comment'' and had adjusted its SIP submittal accordingly.[55] Further, even if the State had attempted to rely on the SIL as support for a 1 ppb threshold, the basis supplied by MOG is inadequate. The SIL is an analytical metric used in the context of PSD permitting, a part of the CAA's ''prevention of significant deterioration'' program, which generally is applicable in areas that designated attainment [56] or unclassifiable for the NAAQS. Good neighbor analysis for the ozone NAAQS, by contrast, addresses the degree of significant contribution to nonattainment and interference with maintenance of the NAAQS resulting at downwind receptors from the collective contribution of many upwind sources. Further, it is not correct to conflate the

[50] Although the various modeling runs (EPA's March 2018 modeling, Alpine's modeling and EPA's updated modeling) indicate that Kentucky is linked to different receptors and with differing amounts of contribution, all three sets of modeling are consistent in that each indicates linkages between Kentucky and downwind receptors.

[51] *See* August 2018 memorandum at 1.

[52] As an example of the type of analysis that EPA anticipated states might conduct under the guidance, in one instance, EPA itself attempted to conduct a state- and receptor-specific analysis that could support approval of the use of a 1 ppb threshold. *See* Air Plan Approval; Iowa; Infrastructure State Implementation Plan Requirements for the 2015 Ozone National Ambient Air Quality Standard, 85 FR 12232 (March 2, 2020). The Agency received adverse comment on this proposed approval and has not taken final action with respect to this proposal.

[53] Kentucky applied the 1 ppb contribution threshold to the Connecticut, Wisconsin, and Maryland receptors, as the Commonwealth found that Kentucky was linked to these receptors based on the modeling released with the March 2018 memorandum. Under EPA's updated modeling, Kentucky is no longer linked to the Wisconsin and Maryland receptors and is linked to receptors in Pennsylvania and New Haven, Connecticut. *See* Table 1. However, as Kentucky did not provide any state-specific information, the rationale is also applicable to the Pennsylvania and New Haven, Connecticut linkages.

[54] *See* Kentucky's January 11, 2019, submission, Appendix D, Summary of Comments and Responses, at 6–7.

[55] *Id.* at 7. EPA directed Kentucky instead to the August 2018 memorandum if it wished to rely on a 1 ppb threshold; however, EPA's comments noted that this memorandum was only a ''part'' of the rationale the Commonwealth should develop. *Id.* at 6.

[56] Pursuant to section 107(d) of the CAA, EPA must designate areas as either ''nonattainment,'' ''attainment,'' or ''unclassifiable.'' Historically for ozone, the EPA has designated most areas that do not meet the definition of nonattainment as ''unclassifiable/attainment.'' This category includes areas that have air quality monitoring data meeting the NAAQS and areas that do not have monitors but for which the EPA has no evidence that the areas may be violating the NAAQS or contributing to a nearby violation. In the designations for the 2015 ozone NAAQS, the EPA reversed the order of the label to be ''attainment/unclassifiable'' to better convey the definition of the designation category and so that the category is more easily distinguished from the separate unclassifiable category. An ''attainment'' designation is reserved for a previous nonattainment area that has been redesignated to attainment as a result of the EPA's approval of a CAA section 175A maintenance plan submitted by the state air agency.

use of the term ''significance'' as used in the SIL guidance, with the term ''contribution,'' which is the appliable statutory term that EPA applies at Step 2 of the 4-step interstate transport framework. (''Significance'' within the 4-step framework is evaluated at Step 3 through a multifactor analysis, for those states that are determined to ''contribute'' to downwind receptors at Steps 1 and 2. See section I.D.4.) Given the fundamentally different statutory objectives and context, EPA disagrees with MOG's contention that the SIL guidance is applicable in the good neighbor context.

1. EPA's Experience With Alternative Step 2 Thresholds

EPA here shares further evaluation of its experience since the issuance of the August 2018 memorandum regarding use of alternative thresholds at Step 2. This experience leads the Agency to now believe it may not be appropriate to continue to attempt to recognize alternative contribution thresholds at Step 2. The August 2018 memorandum stated that ''it may be reasonable and appropriate'' for states to rely on an alternative threshold of 1 ppb threshold at Step 2.[57] (The memorandum also indicated that any higher alternative threshold, such as 2 ppb, would likely not be appropriate.) However, EPA also provided that ''air agencies should consider whether the recommendations in this guidance are appropriate for each situation.'' Following receipt and review of 49 good neighbor SIP submittals for the 2015 8-hour ozone NAAQS, EPA's experience has been that nearly every state that attempted to rely on a 1 ppb threshold did not provide sufficient information and analysis to support a determination that an alternative threshold was reasonable or appropriate for that state.

For instance, in nearly all submittals, the states did not provide EPA with analysis specific to their state or the receptors to which its emissions are potentially linked. In one case, the proposed approval of Iowa's SIP submittal, EPA expended its own resources to attempt to supplement the information submitted by the state, in order to more thoroughly evaluate the state-specific circumstances that could support approval.[58] It was at EPA's sole discretion to perform this analysis in support of the state's submittal, and the Agency is not obligated to conduct supplemental analysis to fill the gaps whenever it believes a state's analysis is insufficient. The Agency no longer intends to undertake supplemental analysis of SIP submittals with respect to alternative thresholds at Step 2 for purposes of the 2015 8-hour ozone NAAQS.

Furthermore, EPA's experience since 2018 is that allowing for alternative Step 2 thresholds may be impractical or otherwise inadvisable for a number of additional policy reasons. For a regional air pollutant such as ozone, consistency in requirements and expectations across all states is essential. Based on its review of submittals to-date and after further consideration of the policy implications of attempting to recognize an alternative Step 2 threshold for certain states, the Agency now believes the attempted use of different thresholds at Step 2 with respect to the 2015 8-hour ozone NAAQS raises substantial policy consistency and practical implementation concerns.[59] The availability of different thresholds at Step 2 has the potential to result in inconsistent application of good neighbor obligations based solely on the strength of a state's implementation plan submittal at Step 2 of the 4-step interstate transport framework. From the perspective of ensuring effective regional implementation of good neighbor obligations, the more important analysis is the evaluation of the emissions reductions needed, if any, to address a state's significant contribution after consideration of a multifactor analysis at Step 3, including a detailed evaluation that considers air quality factors and cost. Where alternative thresholds for purposes of Step 2 may be ''similar'' in terms of capturing the relative amount of upwind contribution (as described in the August 2018 memorandum), nonetheless, use of an alternative threshold would allow certain states to avoid further evaluation of potential emission controls while other states must proceed to a Step 3 analysis. This can create significant equity and consistency problems among states.

Further, it is not clear that national ozone transport policy is best served by allowing for less stringent thresholds at Step 2. EPA recognized in the August 2018 memorandum that there was some similarity in the amount of total upwind contribution captured (on a nationwide basis) between 1 percent and 1 ppb. However, EPA notes that while this may be true in some sense, that is hardly a compelling basis to move to a 1 ppb threshold. Indeed, the 1 ppb threshold has the disadvantage of losing a certain amount of total upwind contribution for further evaluation at Step 3 (*e.g.,* roughly 7 percent of total upwind state contribution was lost according to the modeling underlying the August 2018 memorandum;[60] in EPA's updated modeling, the amount lost is 5 percent). Considering the core statutory objective of ensuring elimination of all significant contribution to nonattainment or interference of the NAAQS in other states and the broad, regional nature of the collective contribution problem with respect to ozone, there does not appear to be a compelling policy imperative in allowing some states to use a 1 ppb threshold while others rely on a 1 percent of the NAAQS threshold.

Consistency with past interstate transport actions such as CSAPR, and the CSAPR Update and Revised CSAPR Update rulemakings (which used a Step 2 threshold of 1 percent of the NAAQS for two less stringent ozone NAAQS), is also important. Continuing to use a 1 percent of NAAQS approach ensures that as the NAAQS are revised and made more stringent, an appropriate increase in stringency at Step 2 occurs, so as to ensure an appropriately larger amount of total upwind-state contribution is captured for purposes of fully addressing interstate transport. *See* 76 FR 48208, 48237–38 (August 8, 2011).

Therefore, notwithstanding the August 2018 memorandum's recognition of the potential viability of alternative Step 2 thresholds, and in particular, a potentially applicable 1 ppb threshold, EPA's experience since the issuance of that memorandum has revealed substantial programmatic and policy difficulties in attempting to implement this approach. Nonetheless, EPA is not at this time rescinding the August 2018 memorandum. The basis for disapproval of Kentucky's SIP submission with respect to the Step 2 analysis is, in the Agency's view, warranted even under the terms of the August 2018 memorandum. EPA invites comment on this broader discussion of issues associated with alternative thresholds at Step 2. Depending on comment and further evaluation of this issue, EPA may determine to rescind the August 2018 memorandum in the future.

[57] *See* August 2018 memorandum at 4.

[58] *Air Plan Approval; Iowa; Infrastructure State Implementation Plan Requirements for the 2015 Ozone National Ambient Air Quality Standard,* 85 FR 12232 (March 2, 2020). The Agency received adverse comment on this proposed approval and has not taken final action with respect to this proposal.

[59] EPA notes that Congress has placed on EPA a general obligation to ensure the requirements of the CAA are implemented consistently across states and regions. *See* CAA section 301(a)(2). Where the management and regulation of interstate pollution levels spanning many states is at stake, consistency in application of CAA requirements is paramount.

[60] *See* August 2018 memorandum at 4.

In summary, EPA's updated modeling indicates that emissions from Kentucky sources are linked to downwind receptors identified in Table 1, and application of 1 ppb alternative threshold is not supported by Kentucky's SIP submission. Thus, EPA preliminarily finds that Kentucky is linked to downwind nonattainment and maintenance receptors, and proceeds to Step 3 of the 4-step framework.

D. Evaluation of Information Provided by Kentucky Regarding Step 3

At Step 3 of the 4-step interstate transport framework, a state's emissions are further evaluated, in light of multiple factors, including air quality and cost considerations, to determine what, if any, emissions significantly contribute to nonattainment or interfere with maintenance and, thus, must be eliminated under CAA section 110(a)(2)(D)(i)(I).

To effectively evaluate which emissions in the state should be deemed ''significant'' and therefore prohibited, states generally should prepare an accounting of sources and other emissions activity for relevant pollutants and assess potential, additional emissions reduction opportunities and resulting downwind air quality improvements. EPA has consistently applied this general approach (*i.e.,* Step 3 of the 4-step interstate transport framewor46k) when identifying emissions contributions that the Agency has determined to be ''significant'' (or interfere with maintenance) in each of its prior Federal, regional ozone transport rulemakings, and this interpretation of the statute has been upheld by the Supreme Court. *See EME Homer City,* 572 U.S. 489, 518–520 (2014). While EPA has not directed states that they must conduct a Step 3 analysis in precisely the manner EPA has done in its prior regional transport rulemakings, state implementation plans addressing the obligations in CAA section 110(a)(2)(D)(i)(I) must prohibit ''any source or other type of emissions activity within the State'' from emitting air pollutants which will contribute significantly to downwind air quality problems. Thus, states must complete something similar to EPA's analysis (or an alternative approach to defining ''significance'' that comports with the statute's objectives) to determine whether and to what degree emissions from a state should be ''prohibited'' to eliminate emissions that will ''contribute significantly to nonattainment in, or interfere with maintenance of'' the NAAQS in any other state. Kentucky did not conduct such an analysis in its SIP submission.

Kentucky did not include a comprehensive accounting of facilities in the Commonwealth and did not include a sufficient analysis of potential NO_X emissions control technologies, their associated costs, estimated emissions reductions, and downwind air quality improvements for the purpose of identifying what additional emission controls may be necessary to eliminate their significant contribution. Rather, Kentucky's SIP included air quality analysis related to downwind receptors and relied on existing NO_X emission measures in the Commonwealth without any rationale to show how or why existing measures would eliminate the Kentucky's downwind contribution. Further, the Commonwealth provided information related to programs that it asserted were responsible for a 10-year decline in ozone season NO_X emissions in Kentucky, such as regulations and Federal programs (including the CSAPR Update), EGU shutdowns, retirements, and fuel switches. However, Kentucky did not quantify the NOx emission reduction potential of on-the-books regulations or Federal programs or on-the-way measures for 2023, nor does the submission consider cost-effectiveness of potential emissions controls, the total emissions reductions that may be achieved by requiring these controls, or an evaluation of the air quality impacts such emissions reductions would have on the downwind receptors to which Kentucky is linked. Identifying a range of on-the-books emissions control measures that have been or may be enacted at the state or local level, without analysis of the impact of those measures on the downwind receptors, is not a sufficient analysis.

Furthermore, the emissions-reducing effects of on-the-books emissions control requirements are already reflected in the air quality results of EPA's modeling under Steps 1 and 2 of the 4-step framework. Kentucky, and MOG in the materials it submitted to Kentucky, maintain that there were additional emission reductions that have occurred that were not accounted for in EPA's 2023 modeling as presented in the March 2018 memorandum. Kentucky cites the 2019 retirement of units 1 and 2 at the E.W. Brown coal-fired power plant (see Appendix D, Response to Comments, at 5), and MOG claims a variety of unidentified changes not accounted for in EPA's emissions inventory at the time of the modeling in the March 2018 memorandum, as well as certain downwind state measures apparently under consideration but not adopted, and certain changes in the Wisconsin EGU fleet (*see* Alpine TSD, Appendix B, at pages B–5, B–6). In general, any changes in the emissions inventory and on-the-books controls relevant to emissions in 2023 have now been incorporated into EPA's most recent modeling of 2023. This includes changes in Kentucky EGU emissions.

As previously discussed, EPA's updated modeling indicates sources in Kentucky are linked to downwind air quality problems for the 2015 8-hour ozone standard. However, Kentucky's SIP submittal did not include a sufficient accounting of emissions sources or activity in the Commonwealth, along with an analysis of potential NO_X emissions control technologies, associated costs, estimated emissions reductions, and downwind air quality improvements to eliminate the Kentucky's downwind contribution.

EPA therefore propose to find that Kentucky was required to analyze emissions from the sources and other emissions activity from within the Commonwealth to determine whether its contributions were significant, and EPA proposes to disapprove its submission because Kentucky failed to do so.

The subsections below contain additional detail with respect to arguments made by the Commonwealth in its SIP submission.[61]

1. Evaluation of Kentucky's Reliance on Existing and Future NO_X Emission Reductions

The Commonwealth's SIP submission does not contain a Step 3 analysis regarding future emissions reduction opportunities beyond pointing to NO_X emission reductions from expected retirements, fuel switching, and shutdowns. While the Commonwealth claimed there would be an estimated 471 tons of NO_X emissions from potential shutdown of units at the E.W. Brown Generating Station facility in Harrodsburg, Kentucky, the Commonwealth did not clarify how these planned reductions would resolve the Commonwealth's downwind contribution to the Harford County, Maryland maintenance-only receptor by 2023. (Nor did the Commonwealth evaluate whether emissions may increase at other sources whose generation would replace that lost at E. W. Brown.) Further, the E.W. Brown facility retired coal-fired units 1 and 2

[61] These subsections provide brief summaries of the issues as presented in Kentucky's SIP as context; please see section II of this notice for additional detail on the contents of Kentucky's SIP.

in February 2019,[62] the units' retirement is included in the recently updated modeling for Steps 1 and 2, and yet emissions from Kentucky sources remain linked to one or more downwind receptors.

While the Commonwealth generally asserted that on-the-books or on-the-way regulations and programs may provide future emissions reductions, Kentucky did not quantify these reductions in a meaningful way or demonstrate that the downwind improvements from these regulations and programs would be sufficient to eliminate the Commonwealth's significant contribution or interference with maintenance. In addition, the SIP submission did not evaluate or even attempt to identify additional control measures for EGUs or non-EGUs, nor did it include a determination of emission reduction potential for these potential additional controls or consider their cost-effectiveness or downwind air quality effects. This is not a sufficient Step 3 analysis.

2. Evaluation of Kentucky's Reliance on Prior Transport FIPs

The 10-year emission reductions discussed by Kentucky relies in part on the implementation of CAIR, CSAPR, and the CSAPR Update. Kentucky's SIP relied on its EGUs being subject to the CSAPR Update (which reflected a stringency at the nominal marginal cost threshold of $1,400/ton (in 2011 dollars) for the 2008 8-hour ozone NAAQS) to argue that it has already implemented all cost-effective emissions reductions to support its conclusion that additional NO_X emission reductions are not necessary from sources in Kentucky. Kentucky did not conduct a comprehensive Step 3 analysis or provide any justification for reliance on the CSAPR Update beyond identifying the NO_X emission reductions that the Commonwealth believes are the source of the 10-year decline in NO_X emissions at EGUs in the Commonwealth and noting that the actual emissions from EGUs in the Commonwealth are well below the CSAPR Update NO_X ozone season trading budget.

EPA disagrees with the Commonwealth. Reliance on the CSAPR Update (or the subsequent Revised CSAPR Update, which fully resolved Kentucky's good neighbor obligations for the 2008 ozone NAAQS, 86 FR 23056–57), is insufficient because those policies addressed section 110(a)(2)(D)(i)(I) only for the *2008* ozone NAAQS. Additionally, reliance on an alleged cost-threshold stringency from the CSAPR Update is insufficient without additional Step 3 analysis and justification. First, the CSAPR Update did not regulate non-EGUs, and thus this analysis would have been incomplete, even with respect to obligations under the 2008 ozone NAAQS. *See Wisconsin,* 938 F.3d at 318–20. Second, relying on the CSAPR Update's (or any other CAA program's) determination of cost-effectiveness without further Step 3 analysis is not approvable. Cost-effectiveness must be assessed in the context of the specific CAA program; assessing cost-effectiveness in the context of ozone transport should reflect a more comprehensive evaluation of the nature of the interstate transport problem under the relevant NAAQS, the total emissions reductions available at alternative cost thresholds, and the air quality impacts of the reductions at downwind receptors. While EPA has not established a benchmark cost-effectiveness value for 2015 8-hour ozone NAAQS interstate transport obligations, because the 2015 8-hour ozone NAAQS is a more stringent and more protective air quality standard, it is reasonable to expect control measures or strategies to address interstate transport under this NAAQS to reflect higher marginal control costs. As such, the marginal cost threshold of $1,400/ton for the CSAPR Update (which addresses the 2008 ozone 8-hour NAAQS and is in 2011 dollars) is not an appropriate cost threshold and cannot be approved as a benchmark to use for interstate transport SIP submissions for the 2015 8-hour ozone NAAQS.

In addition, the updated EPA modeling captures all existing CSAPR trading programs in the baseline, and that modeling confirms that these control programs were not sufficient to eliminate the Kentucky's linkage at Steps 1 and 2 under the 2015 8-hour ozone NAAQS. Kentucky was therefore obligated at Step 3 to assess *additional* control measures using a multifactor analysis.

Finally, relying on a FIP at Step 3 is per se not approvable if the state has not adopted that program into its SIP and instead continues to rely on the FIP. States may not rely on non-SIP measures to meet SIP requirements. *See* CAA section 110(a)(2)(D) (''Each such [SIP] shall . . . contain adequate provisions. . . .''). *See also* CAA section 110(a)(2)(A); *Committee for a Better Arvin* v. *U.S. E.P.A.,* 786 F.3d 1169, 1175–76 (9th Cir. 2015) (holding that measures relied on by state to meet CAA requirements must be included in the SIP). Kentucky has not adopted the Group 3 NO_X Ozone Season Trading Program promulgated in the Revised CSAPR Update into its SIP.

3. Evaluation of Kentucky's Analysis of Air Quality and Emission Reductions Near the Linked Monitors

Kentucky's SIP also evaluated air quality in the vicinity of the Fairfield County, Connecticut (IDs: 090013007 and 090019003) and Harford County, Maryland (ID: 240251001) monitors for which the Commonwealth is linked based on EPA's modeling in the March 2018 memorandum. Kentucky's submission asserts that the primary cause of nonattainment problems at the Connecticut and Maryland monitors are due to local emissions of ozone precursors (particularly NO_X) and meteorological conditions.

Kentucky's SIP submittal argues against control requirements on Kentucky sources to address the two nonattainment receptors in Fairfield, Connecticut (IDs: 090013007, 090019003) and the maintenance-only monitor in Harford County, Maryland monitor, claiming that additional emission reductions from Kentucky EGUs (the only Kentucky source category discussed in the submittal) are not necessary. Kentucky concludes that local emissions reductions should be applied before requiring Kentucky to control its sources, and that the implementation of local programs to reduce emissions should be sufficient for monitors in the area to attain the 2015 8-hour ozone NAAQS.[63]

With respect to the information Kentucky provided that is related to local emissions and the impact on air quality at the Connecticut and Maryland receptors, this information is insufficient to approve Kentucky's SIP submission. Regardless of whether local emissions are the largest contributor to a specific nonattainment or maintenance receptor, the good neighbor provision requires that upwind states prohibit emissions that contribute significantly to nonattainment or interfere with maintenance of the NAAQS in downwind states. EPA evaluates a state's obligations to eliminate interstate transport emissions under the interstate transport provision according to EPA's 4-step process, and EPA's updating modeling at Steps 1 and

[62] *See* Retired Unit exemption forms for E.W. Brown Generating station in Docket No.: EPA–R04–OAR–2021–0841.

[63] The Commonwealth's submission cites to MOG's statements regarding controls on local sources ''When an area is measuring nonattainment of a NAAQS, as is the case with the areas linked to Kentucky, the CAA requires that the effects and benefits of local controls on all source sectors be considered first, prior to pursuing controls of sources in upwind states.''

2 has identified a linkage between emission from Kentucky sources and downwind nonattainment and maintenance receptors.

Further, EPA disagrees with Kentucky's claims that local emissions reductions from the jurisdiction where the downwind receptor is located must first be implemented and accounted for before imposing obligations on upwind states under the interstate transport provision. There is nothing in the CAA that supports that position, and it does not provide grounds on which to approve Kentucky SIP submission. The D.C. Circuit has held on five different occasions that the timing framework for addressing interstate transport obligations must be consistent with the downwind areas' attainment schedule. In particular, for the ozone NAAQS, the states and EPA are to address interstate transport obligations ''as expeditiously as practicable'' and no later than the attainment schedule set in accordance with CAA section 181(a). *See North Carolina,* 531 F.3d at 911–13; *Wisconsin,* 938 F.3d at 313–20; *Maryland,* 958 F.3d at 1204; *New York* v. *EPA,* 964 F.3d 1214, 1226 (D.C. Cir. 2020); *New York* v. *EPA,* 781 Fed. App'x 4, 6–7 (D.C. Cir. 2019). The court in *Wisconsin* explained its reasoning in part by noting that downwind jurisdictions often may need to heavily rely on emissions reductions from upwind states in order to achieve attainment of the NAAQS, 938 F.3d at 316–17; such states would face increased regulatory burdens including the risk of bumping up to a higher nonattainment classification if attainment is not reached by the relevant deadline. *Maryland,* 958 F.3d at 1204. The statutory framework of the CAA and these cases establish clearly that states and EPA must address interstate transport obligations in line with the attainment schedule provided in the Act in order to timely assist downwind states in attaining and maintain the NAAQS, and this schedule is ''central to the regulatory scheme.'' *Wisconsin,* 938 F.3d at 316 (quoting *Sierra Club* v. *EPA,* 294 F.3d 155, 161 (D.C. Cir. 2002)).

In addition, Kentucky's SIP does not provide a technical justification to support its conclusion that local emissions reductions at the receptors will achieve attainment without upwind reductions from sources within Kentucky. Specifically, Kentucky does not provide any information to support its claim that the implementation of local programs alone will address the air quality problems at the Connecticut and Maryland monitors. Even with the consideration of on-the-books control measures to reduce mobile source emissions, EPA's modeling projects that the total contribution from upwind states is a substantial part of the ozone problem at the nonattainment and maintenance receptors to which Kentucky is linked. To illustrate this, at the four receptors to which Kentucky is linked in EPA's latest 2023 modeling, the total percent of U.S. anthropogenic emissions from upwind states is 55 percent (Bucks Co., Pennsylvania), 90 percent (New Haven Co., Connecticut), 90 percent (Fairfield Co.—Stratford, Connecticut), and 94 percent (Fairfield Co.—Westport, Connecticut) of the total design values at these receptors. Clearly, emissions reductions from upwind states would have an impact on the design values at the identified receptors.[64]

Additionally, the SIP submission does not assess whether the Commonwealth's own emissions contributed to nonattainment or interfered with maintenance at the linked receptors, or rather substantiate that emissions from the Commonwealth's sources were not interacting with these monitors. Consequently, the application of local emission reduction measures does not absolve upwind states and sources from the responsibility of addressing their significant contribution. Moreover, Kentucky still has an obligation under the Act to address its downwind contribution to ozone nonattainment or interference with maintenance regardless of the emission reduction potential for local control measures. Furthermore, given that EPA's updated modeling indicates that Kentucky is linked to nonattainment and maintenance receptors at Step 2 including the same Fairfield County, Connecticut nonattainment receptors as were linked in the modeling released with the March 2018 memorandum, EPA disagrees with Kentucky's claims regarding the application of local emission reduction measures with respect to its downwind linkages in the most recent modeling.

[64] In contrast to the receptors to which Kentucky is linked, EPA has found that certain receptors are so heavily impacted by local emissions that they should not be considered ''transport'' receptors for purposes of the ozone NAAQS. Typically, in such cases, only one state is linked above 1 percent to that receptor and the total upwind state contribution is on the order of 2 percent to 4 percent of the receptor's DV. *See, e.g.,* 81 FR 15200 (March 22, 2016), 81 FR 31513 (May 19, 2016), and 81 FR 36179 (June 6, 2016) (approving Arizona's transport SIP on basis that certain California receptors should not be considered impacted by interstate ozone transport).

4. Evaluation of Kentucky's HYSPLIT Analysis

Kentucky's SIP submittal also included HYSPLIT model back trajectory analysis, which Kentucky used to emphasize the local nature of the ozone precursor emissions at the two Connecticut receptors, mobile sources along the I–95 Corridor, and the proximity of large point sources and ozone nonattainment areas in New York, New Jersey, Pennsylvania, and Maryland. Similarly, Kentucky also evaluated HYSPLIT back-trajectory for the Harford County, Maryland monitor and noted similar localized emissions impacts with respect to the Maryland monitor as discussed previously for the two Fairfield County, Connecticut monitors.

However, the limited information provided by Kentucky is not adequate to support approval of Kentucky's SIP on this basis and in the absence of a more complete Step 3 evaluation. Kentucky's SIP submittal did not address that the HYSPLIT back-trajectories indicate that ozone precursor emissions sources in Kentucky are upwind of the linked nonattainment receptors in Connecticut (regardless of the existence of other upwind nonattainment areas that may also be contributing to those receptors). Additionally, the HYSPLIT trajectory information provided by Kentucky was developed by EPA to inform the 2015 8-hour ozone NAAQS area designations and was not intended to evaluate long-distance interstate transport.[65]

Attachment 3 of the 2015 8-hour ozone Area Designations memorandum states that the line thickness displayed on trajectory plots ''does not imply coverage other than to represent the centerline of an air parcel's motion calculated to arrive at the starting location at the starting time. Uncertainties are clearly present in these results and these uncertainties change with trajectory time and distance traveled. One should avoid concluding a region is not along a trajectory's path if the center line of that trajectory missed the region by a relatively small distance.'' [66]

[65] *See* Area Designations for the 2015 Ozone National Ambient Air Quality Standards memorandum from Janet G. McCabe to EPA Regional Administrators, February 25, 2016 (2015 ozone Area Designations memorandum).

[66] *See id.* It is important to understand that HYSPLIT back trajectory analyses use archived meteorological modeling that includes actual observed data (surface, upper air, airplane data, etc.) and modeled meteorological fields to estimate the most likely route of an air parcel transported to a receptor at a specified time. The method essentially follows a parcel of air backward in hourly steps for a specified length of time. HYSPLIT

Continued

Further, the back trajectories used by Kentucky were limited to evaluating transport of air parcels over a relatively short 24-hour period, which limits their use for evaluating long-distance transport of emissions from Kentucky to the Fairfield, Connecticut receptors and the Harford, Maryland receptor. In contrast, EPA's analysis of transported emissions as discussed in section III.A uses updated, photochemical grid modeling designed to assess ozone transported to downwind monitors across the entire region and over extended timeframes that fully account for fate and transport of ozone-precursors over longer distances.

Kentucky's SIP submission states that the Fairfield County ozone monitors are located in the New York Metro Area, in close proximity to the I–95 transportation artery. The Commonwealth's analysis asserts a high VMT and number of commuters in the area indicating the presence of mobile emissions that could be the cause of violating monitors along the I–95 corridor. Kentucky's SIP also mentions two additional coastal monitor sites (Westport Sherwood and Stratford Point Lighthouse) located less than three miles from the I–95 corridor that also show a pattern of ozone violations. Kentucky raises similar points regarding the effect of mobile source emissions along the I–95 corridor in Maryland near the Edgewood receptor. Further, Kentucky asserts that both the Connecticut and Maryland receptor sites may be particularly impacted by unique coastal conditions associated with the Long Island Sound and the Chesapeake Bay. While it is true that both of these monitors are affected by coastal meteorological conditions such as complex land-water wind flows and mixing heights, a large portion of anthropogenic ozone at these locations is the result of transport from upwind states. In addition, as noted above, EPA's most recent modeling shows that Kentucky is linked to a receptor in Bucks County, Pennsylvania which is inland and not influenced by coastal meteorology.

The relevance of the points raised by Kentucky regarding the HYSPLIT back trajectories related to the evaluation of Kentucky's good neighbor obligations is not clear. As already discussed, the statute and the case law (particularly the holdings in *Wisconsin* and *Maryland*) make clear that good neighbor obligations are not merely supplementary to or deferable until after local emission reductions are achieved. Further, all of the receptors to which Kentucky is linked are heavily impacted by upwind state emissions in addition to local sources and conditions. The *Wisconsin* decision's holding regarding international contribution (discussed in section III.A) is equally applicable to an upwind state's claims that some other state's emissions, or local emissions, are ''more to blame'' than its own emissions. *See* 938 F.3d 303 at 323–25 (''an upwind State can 'contribute' to downwind nonattainment even if its emissions are not the but-for cause'').

5. Evaluation of Kentucky's Approach to Maintenance Receptors

Kentucky's SIP argues that states linked only to maintenance receptors should be held to less stringent standards of emissions reductions compared to states linked to a nonattainment receptor. Thus, as the Edgewood monitor was identified as a maintenance receptor in EPA's March 2018 memorandum modeling, the Commonwealth asserts that no further reductions from Kentucky sources other than on-the-books controls should be required. Although the Harford monitor is no longer linked to Kentucky based on EPA's updated modeling,[67] emissions from the Commonwealth are linked to the Bucks County, Pennsylvania (ID: 420170012) maintenance-only receptor. Additionally, MOG argues that states should be absolved from additional emissions controls to address a maintenance monitor if the upwind state can show that either the monitor is likely to remain in attainment for a period of 10 years or that the upwind state's emissions will not increase for 10 years after the attainment date.[68]

Under the D.C. Circuit's decision in *North Carolina,* states and EPA are required to give independent significance to the ''interference with maintenance'' prong of section 110(a)(2)(D)(i)(I). *See* 531 F.3d at 910. Since CSAPR, EPA's nationally consistent policy framework for addressing interstate ozone transport has given meaning to this prong through a separate definition of maintenance receptors at Step 1 of the 4-step interstate transport framework. For states linked only to those receptors, EPA has found it appropriate to apply an emissions control solution that is uniform with the strategy applied for states that are linked to nonattainment receptors. *See* 76 FR at 48271. EPA's approach to addressing interference with maintenance under prong 2 for ozone NAAQS has been upheld twice. *See EME Homer City Generation, L.P.,* 795 F.3d at 136; *Wisconsin,* 938 F.3d at 325–27. *See also* 86 FR at 23054 (April 30, 2021).[69]

Particularly given this context, Kentucky's SIP submission does not provide information sufficient to support less stringent standards of emissions reductions than would result from EPA's historical approach of addressing emissions activities from upwind states that are linked to maintenance-only receptors. The Commonwealth does not explain how the obligations of upwind states linked to maintenance-only receptors should be treated differently than the obligations of upwind states linked to nonattainment receptors.

Further, EPA believes it would be inconsistent with the CAA for EPA to identify receptors that are at risk of NAAQS violations given certain conditions due to transported upwind emissions and then not prohibit the emissions that place the receptor at risk. The Supreme Court held that it was a permissible interpretation of the statute to apportion responsibility for states

estimates the central path in both the vertical and horizontal planes. The HYSPLIT central path represents the centerline with the understanding that there are areas on each side horizontally and vertically that also contribute to the end point at the monitor. The horizontal and vertical areas from the centerline grow wider the further back in time the trajectory goes. Therefore, a HYSPLIT centerline does not have to pass directly over emissions sources or emission source areas but merely relatively near emission source areas.

[67] *See* Table 1, shown previously in this notice.

[68] Kentucky did not rely on MOG's proposed approach in its SIP submittal, therefore EPA does not comprehensively evaluate MOG's suggestion. However, EPA's definition of maintenance receptors already accounts for, and projects whether, receptors may have trouble attaining the NAAQS, through the use of projected maximum design values in the relevant analytic year. Further, EPA's modeling of the relevant analytic year also already accounts for projected emissions trends of the upwind state (among others) and may (and often does) identify a linkage to areas that may struggle to maintain the NAAQS despite an overall declining emissions trend. This is not surprising. First, most maintenance receptors in EPA's projections are currently measuring nonattainment, meaning that, despite projecting improved air quality in the future analytic year, the receptor location is currently, and may continue to be, near the level of the NAAQS. Second, ozone levels are influenced by meteorological variability and thus high ozone levels may persist despite declining emissions as a result of recurring or worsening ozone-conducive atmospheric conditions (*e.g.,* higher temperatures). It is unclear how MOG's approach would account for this variability or ensure that projected emissions reductions from linked states are rendered certain and enforceable.

[69] In the main text of its SIP submittal conclusion regarding interstate transport, Kentucky incorrectly attributes statements regarding the ''interfere with maintenance'' prong to the U.S. Supreme Court. *See* Submittal at 45–46. A footnote, however, correctly attributes this language to the D.C. Circuit's original opinion in *EME Homer City* v *EPA,* 696 F.3d 7 (D.C. Cir. 2012). This decision was reversed and remanded by the Supreme Court, and on remand, the D.C. Circuit affirmed EPA's approach to implementing prong 2, *see* 795 F.3d at 136.

linked to nonattainment receptors considering ''both the magnitude of upwind States' contributions and the cost associated with eliminating them.'' *EME Homer City,* 134 S. Ct. at 1606. It is equally reasonable and permissible to use these factors to apportion responsibility among upwind states linked to maintenance receptors because the goal in both instances is to prohibit the ''amounts'' of pollution that will either significantly contribute to nonattainment or interfere with maintenance of the NAAQS downwind. EPA's updated modeling indicates that the Commonwealth is still linked to downwind nonattainment and maintenance receptors for the 2015 8-hour ozone standard. Consequently, EPA believes Kentucky's assertion that upwind states linked to maintenance-only receptors should be held to less stringent standards of emissions reductions (as compared to states linked to a nonattainment receptor) is also inappropriate for new downwind linkages.

6. Evaluation of Weighted Step 3 Approach

Although Kentucky did not adopt this approach in its SIP submittal, the MOG materials Kentucky appended provided arguments suggesting a ''weighted'' approach to Step 3 similar to an approach that stakeholders had identified to EPA (as listed in Attachment A to EPA's March 2018 memorandum). Under this approach, upwind-state emission reduction obligations would be allocated in proportion to the size of their contribution to downwind nonattainment. MOG determined the proportional reduction requirement associated with the relative significant contribution from each upwind state to the Harford County, Maryland monitor including Kentucky, which resulted in an additional emission reduction obligation for Kentucky of 0.02 ppb, as MOG proposed would be the appropriate proportion of reductions necessary for attainment at the Harford receptor. This approach would have imposed additional emissions reductions for Kentucky sources. Kentucky's final SIP did not consider MOG's proposal, and did not provide an explanation for why it was rejecting this approach to allocating upwind emission reductions, even though it appended this recommendation to its SIP submittal.

In summary, EPA has newly available information that confirms sources in Kentucky are linked to downwind air quality problems for the 2015 8-hour ozone standard. Kentucky's SIP submittal did not include an accounting of emissions sources and activity in the Commonwealth along with an analysis of potential NO_X emissions control technologies, their associated costs, estimated emissions reductions, and downwind air quality improvements. Nor did Kentucky present an alternative approach to assess which of its emissions should be deemed ''significant.'' EPA proposes to find that Kentucky's analysis—including reliance on on-the-books state and Federal measures (including prior CSAPR programs) and claimed on-the-way emission reductions, as well as other air quality, emissions, and geographic factors—is insufficient to support the Commonwealth's claim that its SIP adequately prohibits emissions within Kentucky in a manner sufficient to address the State's interstate transport obligations for the 2015 8-hour ozone.

E. Evaluation of Information Provided by Kentucky Regarding Step 4

Step 4 of the 4-step interstate transport framework calls for development of permanent and federally enforceable control strategies to achieve the emissions reductions determined to be necessary at Step 3 to eliminate significant contribution to nonattainment or interference with maintenance of the NAAQS. Kentucky indicates that certain upcoming planned fuel switches or shutdowns at EGUs will occur before the end of 2023, for which Kentucky cites a press release and a closure plan developed by each plant's parent company.[70] As discussed in section III.D., Kentucky's analysis is insufficient to demonstrate that these reductions are sufficient to address the Commonwealth's interstate transport obligations; however, the Commonwealth also did not provide a separate SIP revision to ensure the reductions were permanent and enforceable. As a result, EPA proposes to disapprove Kentucky's January 11, 2019, submittal on the separate, additional basis that the Commonwealth has not developed permanent and enforceable emissions reductions necessary to meet the obligations of CAA section 110(a)(2)(d)(i)(I).

F. Conclusion

Based on EPA's evaluation of Kentucky's SIP submission, EPA is proposing to find that the interstate transport portion of Kentucky's January 11, 2019, SIP submission addressing CAA section 110(a)(2)(D)(i)(I) does not meet the Commonwealth's interstate transport obligations because it fails to contain the necessary provisions to eliminate emissions that will contribute significantly to nonattainment or interfere with maintenance of the 2015 8-hour ozone NAAQS in any other state.

[70] Pointing to anticipated upcoming emission reductions, even if they were not included in the analysis at Steps 1 and 2, is not sufficient as a Step 3 analysis, for the reasons discussed in section III.C. In this section, EPA explain that to the extent such anticipated reductions are not included in the SIP and rendered permanent and enforceable, reliance on such anticipated reductions is also insufficient at Step 4.

IV. Proposed Action

EPA is proposing to disapprove the 2015 8-hour ozone good neighbor interstate transport SIP revision from Kentucky, dated January 11, 2019. Under CAA section 110(c)(1), if finalized, this disapproval would establish a 2-year deadline for EPA to promulgate a FIP for Kentucky to address the CAA section 110(a)(2)(D)(i)(I) interstate transport requirements pertaining to significant contribution to nonattainment and interference with maintenance of the 2015 8-hour ozone NAAQS in other states, unless EPA approves a SIP that meets these requirements. However, under the CAA, a good neighbor SIP disapproval does not start a mandatory sanctions clock.

V. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review

This proposed action is not a significant regulatory action and was therefore not submitted to the Office of Management and Budget for review.

B. Paperwork Reduction Act (PRA)

This proposed action does not impose an information collection burden under the PRA because it does not contain any information collection activities.

C. Regulatory Flexibility Act (RFA)

This action merely proposes to disapprove a SIP submission as not meeting the CAA for Kentucky. EPA certifies that this proposed rule will not have a significant economic impact on a substantial number of small entities under the RFA (5 U.S.C. 601 *et seq.*).

D. Unfunded Mandates Reform Act (UMRA)

This proposed action does not contain any unfunded mandate as described in UMRA, 2 U.S.C. 1531–1538, and does not significantly or uniquely affect small governments. This proposed action imposes no enforceable duty on any state, local, or tribal governments or the private sector.

E. Executive Order 13132: Federalism

This proposed action does not have federalism implications. It will not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government.

F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments

This proposed action does not have tribal implications as specified in Executive Order 13175. This proposed action does not apply on any Indian reservation land, any other area where EPA or an Indian tribe has demonstrated that a tribe has jurisdiction, or non-reservation areas of Indian country. Thus, Executive Order 13175 does not apply to this action.

G. Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks

EPA interprets Executive Order 13045 as applying only to those regulatory actions that concern environmental health or safety risks that EPA has reason to believe may disproportionately affect children, per the definition of ''covered regulatory action'' in section 2–202 of the Executive Order. This proposed action is not subject to Executive Order 13045 because it merely proposes to disapprove a SIP submission from Kentucky as not meeting the CAA.

H. Executive Order 13211, Actions That Significantly Affect Energy Supply, Distribution or Use

This proposed action is not subject to Executive Order 13211, because it is not a significant regulatory action under Executive Order 12866.

I. National Technology Transfer and Advancement Act

This proposed rulemaking does not involve technical standards.

J. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations

EPA believes the human health or environmental risk addressed by this action will not have potential disproportionately high and adverse human health or environmental effects on minority, low-income or indigenous populations. This action merely proposes to disapprove a SIP submission as not meeting the CAA.

K. CAA Section 307(b)(1)

Section 307(b)(1) of the CAA governs judicial review of final actions by EPA. This section provides, in part, that petitions for review must be filed in the D.C. Circuit: (i) When the agency action consists of ''nationally applicable regulations promulgated, or final actions taken, by the Administrator,'' or (ii) when such action is locally or regionally applicable, if ''such action is based on a determination of nationwide scope or effect and if in taking such action the Administrator finds and publishes that such action is based on such a determination.'' For locally or regionally applicable final actions, the CAA reserves to EPA complete discretion whether to invoke the exception in (ii).[71]

If EPA takes final action on this proposed rulemaking, the Administrator intends to exercise the complete discretion afforded to him under the CAA to make and publish a finding that the final action (to the extent a court finds the action to be locally or regionally applicable) is based on a determination of ''nationwide scope or effect'' within the meaning of CAA section 307(b)(1). Through this rulemaking action (in conjunction with a series of related actions on other SIP submissions for the same CAA obligations), EPA interprets and applies section 110(a)(2)(d)(i)(I) of the CAA for the 2015 8-hour ozone NAAQS based on a common core of nationwide policy judgments and technical analysis concerning the interstate transport of pollutants throughout the continental U.S. In particular, EPA is applying here (and in other proposed actions related to the same obligations) the same, nationally consistent 4-step framework for assessing good neighbor obligations for the 2015 8-hour ozone NAAQS. EPA relies on a single set of updated, 2016-base year photochemical grid modeling results of the year 2023 as the primary basis for its assessment of air quality conditions and contributions at Steps 1 and 2 of that framework. Further, EPA proposes to determine and apply a set of nationally consistent policy judgments to apply the 4-step framework. EPA has selected a nationally uniform analytic year (2023) for this analysis and is applying a nationally uniform approach to nonattainment and maintenance receptors and a nationally uniform approach to contribution threshold analysis.[72] For these reasons, the Administrator intends, if this proposed action is finalized, to exercise the complete discretion afforded to him under the CAA to make and publish a finding that this action is based on one or more determinations of nationwide scope or effect for purposes of CAA section 307(b)(1).[73]

[71] In deciding whether to invoke the exception by making and publishing a finding that an action is based on a determination of nationwide scope or effect, the Administrator takes into account a number of policy considerations, including his judgment balancing the benefit of obtaining the D.C. Circuit's authoritative centralized review versus allowing development of the issue in other contexts and the best use of agency resources.

[72] A finding of nationwide scope or effect is also appropriate for actions that cover states in multiple judicial circuits. In the report on the 1977 Amendments that revised section 307(b)(1) of the CAA, Congress noted that the Administrator's determination that the ''nationwide scope or effect'' exception applies would be appropriate for any action that has a scope or effect beyond a single judicial circuit. *See* H.R. Rep. No. 95–294 at 323, 324, reprinted in 1977 U.S.C.C.A.N. 1402–03.

[73] EPA may take a consolidated, single final action on all of the proposed SIP disapproval actions with respect to obligations under CAA section 110(a)(2)(D)(i)(I) for the 2015 8-hour ozone NAAQS. Should EPA take a single final action on all such disapprovals, this action would be nationally applicable, and EPA would also anticipate, in the alternative, making and publishing a finding that such final action is based on a determination of nationwide scope or effect.

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Ozone.

Authority: 42 U.S.C. 7401 *et seq.*

Dated: February 3, 2022.

Daniel Blackman,

Regional Administrator, Region 4.

[FR Doc. 2022–02947 Filed 2–18–22; 8:45 am]

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ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

EPA–R03–OAR–2021–0873; EPA–HQ–OAR–2021–0663; FRL–9494–01–R3]

Air Plan Disapproval; West Virginia; Interstate Transport of Air Pollution for the 2015 8-Hour Ozone National Ambient Air Quality Standard

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: Pursuant to the Federal Clean Air Act (CAA or the Act), the Environmental Protection Agency (EPA) is proposing to disapprove a State Implementation Plan (SIP) submittal from West Virginia intended to address interstate transport for the 2015 8-hour ozone national ambient air quality standards (2015 8-hour ozone NAAQS). The ''good neighbor'' or ''interstate

transport'' provisions require that each state's SIP contain adequate provisions to prohibit emissions from within the state from significantly contributing to nonattainment or interfering with maintenance of the NAAQS in other states. This requirement is part of the broader set of ''infrastructure'' requirements, which are designed to ensure that the structural components of each state's air quality management program are adequate to meet the state's responsibilities under the CAA. This disapproval, if finalized, will establish a 2-year deadline for the EPA to promulgate a Federal Implementation Plan (FIP) to address the relevant interstate transport requirements, unless the EPA approves a subsequent SIP submittal that meets these requirements. Disapproval does not start a mandatory sanctions clock.

DATES: Written comments must be received on or before April 25, 2022.

ADDRESSES: You may send comments, identified as Docket No. EPA–R03–OAR–2021–0873, by any of the following methods: Federal eRulemaking Portal at *https://www.regulations.gov* following the online instructions for submitting comments or via email to *gordon.mike@epa.gov.* For additional methods for submitting comments, contact the person in the **FOR FURTHER INFORMATION CONTACT** section. Include Docket ID No. EPA–R03–OAR–2021–0873 in the subject line of the message.

Instructions: All submissions received must include the Docket ID No. for this rulemaking. Comments received may be posted without change to *https://www.regulations.gov/,* including any personal information provided. For detailed instructions on sending comments and additional information on the rulemaking process, see the ''Public Participation'' heading of the **SUPPLEMENTARY INFORMATION** section of this document. Out of an abundance of caution for members of the public and our staff, the EPA Docket Center and Reading Room are open to the public by appointment only to reduce the risk of transmitting COVID–19. Our Docket Center staff also continues to provide remote customer service via email, phone, and webform. For further information on EPA Docket Center services and the current status, please visit us online at *https://www.epa.gov/dockets.*

FOR FURTHER INFORMATION CONTACT: Michael Gordon, Planning & Implementation Branch (3AD30), Air & Radiation Division, U.S. Environmental Protection Agency, Region III, 1650 Arch Street, Philadelphia, Pennsylvania 19103. The telephone number is (215) 814–2039. Mr. Gordon can also be reached via electronic mail at *gordon.mike@epa.gov.*

SUPPLEMENTARY INFORMATION: *Public Participation:* Submit your comments, identified by Docket ID No. EPA–R03–OAR–2021–0873, at *https://www.regulations.gov* (our preferred method), or the other methods identified in the **ADDRESSES** section. Once submitted, comments cannot be edited or removed from the docket. The EPA may publish any comment received to its public docket. Do not submit to EPA's docket at *https://www.regulations.gov* any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. The EPA will generally not consider comments or comment contents located outside of the primary submission (*i.e.,* on the web, cloud, or other file sharing system).

There are two dockets supporting this action, EPA–R03–OAR–2021–0873 and EPA–HQ–OAR–2021–0663. Docket No. EPA–R03–OAR–2021–0873 contains information specific to West Virginia, including the notice of proposed rulemaking. Docket No. EPA–HQ–OAR–2021–0663 contains additional modeling files, emissions inventory files, technical support documents, and other relevant supporting documentation regarding interstate transport of emissions for the 2015 8-hour ozone NAAQS which are being used to support this action. All comments regarding information in either of these dockets are to be made in Docket No. EPA–R03–OAR–2021–0873. For additional submission methods, please contact Michael Gordon, 215–814–2039, *gordon.mike@epa.gov.* For the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit *https://www.epa.gov/dockets/commenting-epa-dockets.* Due to public health concerns related to COVID–19, the EPA Docket Center and Reading Room are open to the public by appointment only. Our Docket Center staff also continues to provide remote customer service via email, phone, and webform. For further information and updates on EPA Docket Center services, please visit us online at *https://www.epa.gov/dockets.*

The EPA continues to carefully and continuously monitor information from the Centers for Disease Control and Prevention (CDC), local area health departments, and our Federal partners so that we can respond rapidly as conditions change regarding COVID–19. The index to the docket for this action, Docket No. EPA–R03–OAR–2021–0873, is available electronically at *www.regulations.gov.* While all documents in the docket are listed in the index, some information may not be publicly available via the online docket, such as modeling data files, due to docket file size restrictions or content (*e.g.,* CBI). Please contact the EPA Docket Center Services for further information on how to obtain these files.

Throughout this document, ''we,'' ''us,'' and ''our'' means the EPA.

I. Background

A. Description of Statutory Background

On October 1, 2015, the EPA promulgated a revision to the ozone NAAQS (2015 8-hour ozone NAAQS), lowering the level of both the primary and secondary standards to 0.070 parts per million (ppm).[1] Section 110(a)(1) of the CAA requires states to submit, within 3 years after promulgation of a new or revised standard, SIP submissions meeting the applicable requirements of section 110(a)(2).[2] One of these applicable requirements is found in CAA section 110(a)(2)(D)(i)(I), otherwise known as the ''interstate transport'' or ''good neighbor'' provision, which generally requires SIPs to contain adequate provisions to prohibit in-state emissions activities from having certain adverse air quality effects on other states due to interstate transport of pollution. There are two so-called ''prongs'' within CAA section 110(a)(2)(D)(i)(I). A SIP for a new or revised NAAQS must contain adequate provisions prohibiting any source or other type of emissions activity within the state from emitting air pollutants in amounts that will significantly contribute to nonattainment of the NAAQS in another state (prong 1) or interfere with maintenance of the NAAQS in another state (prong 2). The EPA and states must give independent

[1] National Ambient Air Quality Standards for Ozone, Final Rule, 80 FR 65292 (October 26, 2015). Although the level of the standard is specified in the units of ppm, ozone concentrations are also described in parts per billion (ppb). For example, 0.070 ppm is equivalent to 70 ppb.

[2] SIP revisions that are intended to meet the applicable requirements of section 110(a)(1) and (2) of the CAA are often referred to as infrastructure SIPs and the applicable elements under section 110(a)(2) are referred to as infrastructure requirements.

significance to prong 1 and prong 2 when evaluating downwind air quality problems under CAA section 110(a)(2)(D)(i)(I).[3]

B. Description of the EPA's Four-Step Interstate Transport Regulatory Process

The EPA is using the 4-step interstate transport framework (or 4-step framework) to evaluate the states' SIP submittals addressing the interstate transport provision for the 2015 8-hour ozone NAAQS. The EPA has addressed the interstate transport requirements of CAA section 110(a)(2)(D)(i)(I) with respect to prior ozone NAAQS in several regional regulatory actions, including the Cross-State Air Pollution Rule (CSAPR), which addressed interstate transport with respect to the 1997 ozone NAAQS as well as the 1997 and 2006 fine particulate matter standards,[4] and the Cross-State Air Pollution Rule Update (CSAPR Update) [5] and the Revised CSAPR Update, both of which addressed the 2008 ozone NAAQS.[6]

Through the development and implementation of the CSAPR rulemakings and prior regional rulemakings pursuant to the interstate transport provision,[7] the EPA, working in partnership with states, developed the following 4-step interstate transport framework to evaluate a State's obligations to eliminate interstate transport emissions under the interstate transport provision for the ozone NAAQS: (1) Identify monitoring sites that are projected to have problems attaining and/or maintaining the NAAQS (*i.e.,* nonattainment and/or maintenance receptors); (2) identify states that impact those air quality problems in other (*i.e.,* downwind) states sufficiently such that the states are considered ''linked'' and therefore warrant further review and analysis; (3) identify the emissions reductions necessary (if any), applying a multifactor analysis, to eliminate each linked upwind state's significant contribution to nonattainment or interference with maintenance of the NAAQS at the locations identified in Step 1; and (4) adopt permanent and enforceable measures needed to achieve those emissions reductions.

C. Background on the EPA's Ozone Transport Modeling Information

In general, the EPA has performed nationwide air quality modeling to project ozone design values which are used in combination with measured data to identify nonattainment and maintenance receptors. To quantify the contribution of emissions from specific upwind states on 2023 ozone design values for the identified downwind nonattainment and maintenance receptors, the EPA performed nationwide, state-level ozone source apportionment modeling for 2023. The source apportionment modeling provided contributions to ozone at receptors from precursor emissions of anthropogenic nitrogen oxides (NO_X) and volatile organic compounds (VOCs) in individual upwind states.

The EPA has released several documents containing projected ozone design values, contributions, and information relevant to evaluating interstate transport with respect to the 2015 8-hour ozone NAAQS. First, on January 6, 2017, the EPA published a notice of data availability (NODA) in which we requested comment on preliminary interstate ozone transport data including projected ozone design values (DVs) and interstate contributions for 2023 using a 2011 base year platform.[8] In the NODA, the EPA used the year 2023 as the analytic year for this preliminary modeling because that year aligns with the expected attainment year for Moderate ozone nonattainment areas for the 2015 8-hour ozone NAAQS.[9] On October 27, 2017, we released a memorandum (October 2017 memorandum) containing updated modeling data for 2023, which incorporated changes made in response to comments on the NODA, and noted that the modeling may be useful for states developing SIPs to address interstate transport obligations for the 2008 ozone NAAQS.[10] On March 27, 2018, we issued a memorandum (March 2018 memorandum) noting that the same 2023 modeling data released in the October 2017 memorandum could also be useful for identifying potential downwind air quality problems with respect to the 2015 8-hour ozone NAAQS at Step 1 of the 4-step interstate transport framework.[11] The March 2018 memorandum also included the then newly available contribution modeling data for 2023 to assist states in evaluating their impact on potential downwind air quality problems for the 2015 8-hour ozone NAAQS under Step 2 of the 4-step interstate transport framework.[12] The EPA subsequently issued two more memoranda in August and October 2018, providing additional information to states developing interstate transport SIP submissions for the 2015 8-hour ozone NAAQS concerning, respectively, potential contribution thresholds that may be appropriate to apply in Step 2 of the 4-step interstate transport framework, and considerations for identifying downwind areas that may have problems maintaining the standard at Step 1 of the 4-step interstate transport framework.[13]

Since the release of the modeling data shared in the March 2018

[3] *See North Carolina* v. *EPA,* 531 F.3d 896, 909–11 (D.C. Cir. 2008).

[4] *See* Federal Implementation Plans: Interstate Transport of Fine Particulate Matter and Ozone and Correction of SIP Approvals, 76 FR 48208 (August 8, 2011).

[5] Cross-State Air Pollution Rule Update for the 2008 Ozone NAAQS, 81 FR 74504 (October 26, 2016).

[6] In 2019, the D.C. Circuit Court of Appeals remanded the CSAPR Update to the extent it failed to require upwind states to eliminate their significant contribution by the next applicable attainment date by which downwind states must come into compliance with the NAAQS, as established under CAA section 181(a). *Wisconsin* v. *EPA,* 938 F.3d 303, 313 (D.C. Cir. 2019). The Revised CSAPR Update for the 2008 Ozone NAAQS, 86 FR 23054 (April 30, 2021), responded to the remand of the CSAPR Update in *Wisconsin* and the vacatur of a separate rule, the ''CSAPR Close-Out,'' 83 FR 65878 (December 21, 2018), in *New York* v. *EPA,* 781 F. App'x. 4 (D.C. Cir. 2019).

[7] In addition to the CSAPR rulemakings, other regional rulemakings addressing ozone transport include the ''NO_X SIP Call,'' 63 FR 57356 (October 27, 1998), and the ''Clean Air Interstate Rule'' (CAIR), 70 FR 25162 (May 12, 2005).

[8] *See* Notice of Availability of the Environmental Protection Agency's Preliminary Interstate Ozone Transport Modeling Data for the 2015 8-hour Ozone National Ambient Air Quality Standard (NAAQS), 82 FR 1733 (January 6, 2017).

[9] *See* 82 FR 1733, 1735 (January 6, 2017).

[10] *See* Information on the Interstate Transport State Implementation Plan Submissions for the 2008 Ozone National Ambient Air Quality Standards under Clean Air Act Section 110(a)(2)(D)(i)(I), October 27, 2017, available in the docket for this action or at *https://www.epa.gov/interstate-air-pollution-transport/interstate-air-pollution-transport-memos-and-notices.*

[11] *See* Information on the Interstate Transport State Implementation Plan Submissions for the 2015 Ozone National Ambient Air Quality Standards under Clean Air Act Section 110(a)(2)(D)(i)(I), March 27, 2018 (''March 2018 memorandum''), available in the docket for this action or at *https://www.epa.gov/interstate-air-pollution-transport/interstate-air-pollution-transport-memos-and-notices.*

[12] The March 2018 memorandum, however, provided, ''While the information in this memorandum and the associated air quality analysis data could be used to inform the development of these SIPs, the information is not a final determination regarding states' obligations under the good neighbor provision. Any such determination would be made through notice-and-comment rulemaking.''

[13] *See* Analysis of Contribution Thresholds for Use in Clean Air Act Section 110(a)(2)(D)(i)(I) Interstate Transport State Implementation Plan Submissions for the 2015 Ozone National Ambient Air Quality Standards, August 31, 2018) (''August 2018 memorandum''), and Considerations for Identifying Maintenance Receptors for Use in Clean Air Act Section 110(a)(2)(D)(i)(I) Interstate Transport State Implementation Plan Submissions for the 2015 Ozone National Ambient Air Quality Standards, October 19, 2018, available in the docket for this action or at *https://www.epa.gov/airmarkets/memo-and-supplemental-information-regarding-interstate-transport-sips-2015-ozone-naaqs.*

memorandum, the EPA performed updated modeling using a 2016-based emissions modeling platform (*i.e.,* 2016v1). This emissions platform was developed under the EPA/Multi-Jurisdictional Organization (MJO)/state collaborative project.[14] This collaborative project was a multi-year joint effort by the EPA, MJOs, and states to develop a new, more recent emissions platform for use by the EPA and states in regulatory modeling as an improvement over the dated 2011-based platform that the EPA had used to project ozone design values and contribution data provided in the 2017 and 2018 memoranda. The EPA used the 2016v1 emissions to project ozone design values and contributions for 2023. On October 30, 2020, in the Notice of Proposed Rulemaking for the Revised CSAPR Update, the EPA released and accepted public comment on 2023 modeling that used the 2016v1 emissions platform.[15] Although the Revised CSPAR Update addressed transport for the 2008 ozone NAAQS, the projected design values and contributions from the 2016v1 platform are also useful for identifying downwind ozone problems and linkages with respect to the 2015 ozone NAAQS.[16]

Following the final Revised CSAPR Update, the EPA made further updates to the 2016 emissions platform to include mobile emissions from the EPA's Motor Vehicle Emission Simulator MOVES3 model [17] and updated emissions projections for electric generating units (EGUs) that reflect the emissions reductions from the Revised CSAPR Update, recent information on plant closures, and other sector trends. The construct of the updated emissions platform, 2016v2 (2016v2 emissions platform), is described in the emissions modeling technical support document (TSD) for this proposed rulemaking.[18] The EPA performed air quality modeling of the 2016v2 emissions using the most recent public release version of the Comprehensive Air-quality Model with extensions (CAMx) photochemical modeling, version 7.10.[19] The EPA now proposes to primarily rely on modeling based on the updated and newly available 2016v2 emissions platform in evaluating these submissions with respect to Steps 1 and 2 of the 4-step interstate transport framework and generally referenced within this action as 2016v2 modeling for 2023. By using the updated modeling results, the EPA is using the most current and technically appropriate information for this proposed rulemaking. Section III of this document and the Air Quality Modeling TSD for 2015 8-hour Ozone NAAQS Transport SIP Proposed Actions, included in Docket ID No. EPA–HQ–OAR–2021–0663 for this proposal, contain additional detail on the EPA's 2016v2 modeling. In this document, the EPA is accepting public comment on this updated 2023 modeling, which uses a 2016v2 emissions platform. Comments on the EPA's air quality modeling should be submitted in the Regional docket for this action, Docket ID No. EPA–R03–OAR–2021–0873. No comments on any topic are being accepted in docket ID No. EPA–HQ–OAR–2021–0663.

States may have chosen to rely on the results of EPA modeling and/or alternative modeling performed by states or MJOs to evaluate downwind air quality problems and contributions as part of their submissions. EPA's evaluation of how West Virginia used air quality modeling information in their submission is in Section III of this document.

D. The EPA's Approach to Evaluating Interstate Transport SIPs for the 2015 8-Hour Ozone NAAQS

The EPA proposes to apply a consistent set of policy judgments across all states for purposes of evaluating interstate transport obligations and the approvability of interstate transport SIP submittals for the 2015 8-hour ozone NAAQS. These policy judgments reflect consistency with relevant case law and past agency practice as reflected in the CSAPR and related rulemakings. Nationwide consistency in approach is particularly important in the context of interstate ozone transport, which is a regional-scale pollution problem involving many smaller contributors. Effective policy solutions to the problem of interstate ozone transport going back to the NO_X SIP Call have necessitated the application of a uniform framework of policy judgments in order to ensure an ''efficient and equitable'' approach. *See EME Homer City Generation, LP* v. *EPA,* 572 U.S. 489, 519 (2014).

In the March, August, and October 2018 memoranda, the EPA recognized that states may be able to establish alternative approaches to addressing their interstate transport obligations for the 2015 8-hour ozone NAAQS that vary from a nationally uniform framework. The EPA emphasized in these memoranda, however, that such alternative approaches must be technically justified and appropriate in light of the facts and circumstances of each particular state's submittal. In general, the EPA continues to believe that deviation from a nationally consistent approach to ozone transport must be substantially justified and have a well-documented technical basis that is consistent with relevant case law. Where states submitted SIPs that rely on any such potential ''flexibilities'' as may have been identified or suggested in the past, the EPA will evaluate whether the state adequately justified the technical and legal basis for doing so. The EPA's proposed framework with respect to analytic year, definition of nonattainment and maintenance receptors, selection of contribution threshold, and multifactor control strategy assessment is described in this section. The EPA notes that certain concepts included in an attachment to the March 2018 memorandum require unique consideration, and these ideas do not constitute agency guidance with respect to transport obligations for the 2015 ozone NAAQS. Attachment A to the March 2018 memorandum identified a ''Preliminary List of Potential Flexibilities'' that could potentially inform SIP development.[20] However, EPA made clear in that Attachment that the list of ideas were not suggestions endorsed by the Agency but rather ''comments provided in various forums'' on which EPA sought ''feedback from interested stakeholders.'' [21] Further, Attachment A stated, ''EPA is not at this time making any determination that the ideas discussed below are consistent with the requirements of the CAA, nor is the EPA specifically recommending that states use these approaches.'' [22] Attachment A to the March 2018 memorandum, therefore, does not constitute agency guidance, but was intended to generate further discussion around potential approaches to addressing ozone transport among interested stakeholders. To the extent

[14] The results of this modeling, as well as the underlying modeling files, are included in docket EPA–HQ–OAR–2021–0663.

[15] *See* 85 FR 68964, 68981

[16] *See* the Air Quality Modeling Technical Support Document for the Final Revised Cross-State Air Pollution Rule Update, included in the Headquarters docket ID No. EPA–HQ–OAR–2021–0663.

[17] Additional details and documentation related to the MOVES3 model can be found at *https://www.epa.gov/moves/latest-version-motor-vehicle-emission-simulator-moves.*

[18] *See* Technical Support Document (TSD) Preparation of Emissions Inventories for the 2016v2 North American Emissions Modeling Platform, included in the Headquarters docket ID No. EPA–HQ–OAR–2021–0663.

[19] Ramboll Environment and Health, January 2021, *www.camx.com.*

[20] March 2018 memorandum, Attachment A.

[21] *Id.* at A–1.

[22] *Id.*

states sought to develop or rely on these ideas in support of their SIP submittals, the EPA will thoroughly review the technical and legal justifications for doing so.

The remainder of this section describes the EPA's proposed framework with respect to analytic year, definition of nonattainment and maintenance receptors, selection of contribution threshold, and multifactor control strategy assessment.

1. Selection of Analytic Year

In general, the states and the EPA must implement the interstate transport provision in a manner ''consistent with the provisions of [title I of the CAA.]'' CAA section 110(a)(2)(D)(i). This requires, among other things, that these obligations are addressed consistently with the timeframes for downwind areas to meet their CAA obligations. With respect to ozone NAAQS, under CAA section 181(a), this means obligations must be addressed ''as expeditiously as practicable'' and no later than the schedule of attainment dates provided in CAA section 181(a)(1).[23] Several D.C. Circuit court decisions address the issue of the relevant analytic year for the purposes of evaluating ozone transport air-quality problems. On September 13, 2019, the D.C. Circuit issued a decision in *Wisconsin* v. *EPA,* remanding the CSAPR Update to the extent that it failed to require upwind states to eliminate their significant contribution by the next applicable attainment date by which downwind states must come into compliance with the NAAQS, as established under CAA section 181(a). 938 F.3d 303 at 313.

On May 19, 2020, the D.C. Circuit issued a decision in *Maryland* v. *EPA* that cited the *Wisconsin* decision in holding that the EPA must assess the impact of interstate transport on air quality at the next downwind attainment date, including Marginal area attainment dates, in evaluating the basis for the EPA's denial of a petition under CAA section 126(b). *Maryland* v. *EPA,* 958 F.3d 1185, 1203–04 (D.C. Cir. 2020). The court noted that ''section 126(b) incorporates the Good Neighbor Provision,'' and, therefore, ''EPA must find a violation [of section 126] if an upwind source will significantly contribute to downwind nonattainment at the *next downwind attainment deadline.* Therefore, the agency must evaluate downwind air quality at that deadline, not at some later date.'' *Id.* at 1204 (emphasis added). The EPA interprets the court's holding in *Maryland* as requiring the Agency, under the good neighbor provision, to assess downwind air quality as expeditiously as practicable and no later than the next applicable attainment date,[24] which is now the Moderate area attainment date under CAA section 181 for ozone nonattainment. The Moderate area attainment date for the 2015 8-hour ozone NAAQS is August 3, 2024.[25] The EPA believes that 2023 is now the appropriate year for analysis of interstate transport obligations for the 2015 8-hour ozone NAAQS because the 2023 ozone season is the last relevant ozone season during which achieved emissions reductions in linked upwind states could assist downwind states with meeting the August 3, 2024 Moderate area attainment date for the 2015 8-hour ozone NAAQS.

The EPA recognizes that the attainment date for nonattainment areas classified as Marginal for the 2015 8-hour ozone NAAQS was August 3, 2021. Under the *Maryland* holding, any necessary emissions reductions to satisfy interstate transport obligations should have been implemented by no later than this date. At the time of the statutory deadline to submit interstate transport SIPs (October 1, 2018), many states relied upon the EPA modeling of the year 2023, and no state provided an alternative analysis using a 2021 analytic year (or the prior 2020 ozone season). However, the EPA must act on SIP submittals using the information available at the time it takes such action. In this circumstance, the EPA does not believe it would be appropriate to evaluate states' obligations under CAA section 110(a)(2)(D)(i)(I) as of an attainment date that is wholly in the past, because the Agency interprets the interstate transport provision as forward looking. *See* 86 FR at 23074(April 30, 2021); *see also Wisconsin,* 938 F.3d at 322. Consequently, in this proposal the EPA will use the analytical year of 2023 to evaluate each state's CAA section 110(a)(2)(D)(i)(I) SIP submission with respect to the 2015 8-hour ozone NAAQS.

2. Step 1 of the 4-Step Interstate Transport Framework

In Step 1, the EPA identifies monitoring sites that are projected to have problems attaining and/or maintaining the NAAQS in the 2023 analytic year. Where the EPA's analysis shows that a site does not fall under the definition of a nonattainment or maintenance receptor, that site is excluded from further analysis under the EPA's 4-step interstate transport framework. For sites that are identified as a nonattainment or maintenance receptor in 2023, we proceed to the next step of our 4-step interstate transport framework by identifying the upwind state's contribution to those receptors.

The EPA's approach to identifying ozone nonattainment and maintenance receptors in this action is consistent with the approach used in previous transport rulemakings. The EPA's approach gives independent consideration to both the ''contribute significantly to nonattainment'' and the ''interfere with maintenance'' prongs of CAA section 110(a)(2)(D)(i)(I), consistent with the D.C. Circuit's direction in *North Carolina* v. *EPA.*[26]

For the purpose of this proposal, the EPA identifies nonattainment receptors as those monitoring sites that are projected to have average design values that exceed the NAAQS and that are also measuring nonattainment based on the most recent monitored design values. This approach is consistent with prior transport rulemakings, such as the CSAPR Update, where the EPA defined nonattainment receptors as those areas that both currently measure nonattainment and that the EPA projects will be in nonattainment in the future analytic year (*i.e.,* 2023).[27]

In addition, in this proposal, the EPA identifies a receptor to be a ''maintenance'' receptor for purposes of defining interference with maintenance, consistent with the method used in the CSAPR and upheld by the D.C. Circuit in *EME Homer City Generation, L.P.* v. *EPA,* 795 F.3d 118, 136 (D.C. Cir.

[23] For attainment dates for the 2015 8-hour ozone NAAQS, refer to CAA section 181(a), 40 CFR 51.1303, and Additional Air Quality Designations for the 2015 Ozone National Ambient Air Quality Standards, 83 FR 25776 (June 4, 2018, effective August 3, 2018).

[24] We note that the court in *Maryland* did not have occasion to evaluate circumstances in which the EPA may determine that an upwind linkage to a downwind air quality problem exists at steps 1 and 2 of the interstate transport framework by a particular attainment date, but for reasons of impossibility or profound uncertainty the Agency is unable to mandate upwind pollution controls by that date. *See Wisconsin,* 938 F.3d at 320. The D.C. Circuit noted in *Wisconsin* that upon a sufficient showing, these circumstances may warrant flexibility in effectuating the purpose of the interstate transport provision.

[25] *See* CAA section 181(a); 40 CFR 51.1303; Additional Air Quality Designations for the 2015 Ozone National Ambient Air Quality Standards, 83 FR 25776 (June 4, 2018, effective August 3, 2018).

[26] *See North Carolina* v. *EPA,* 531 F.3d 896, 910–11 (D.C. Cir. 2008) (holding that the EPA must give ''independent significance'' to each prong of CAA section 110(a)(2)(D)(i)(I)).

[27] *See* 81 FR 74504 (October 26, 2016). This same concept, relying on both current monitoring data and modeling to define nonattainment receptor, was also applied in CAIR. *See* 70 FR 25241 (January 14, 2005); *see also North Carolina,* 531 F.3d at 913–14 (affirming as reasonable EPA's approach to defining nonattainment in CAIR).

2015).[28] Specifically, the EPA identified maintenance receptors as those receptors that would have difficulty maintaining the relevant NAAQS in a scenario that takes into account historical variability in air quality at that receptor. The variability in air quality was determined by evaluating the ''maximum'' future design value at each receptor based on a projection of the maximum measured design value over the relevant period. The EPA interprets the projected maximum future design value to be a potential future air quality outcome consistent with the meteorology that yielded maximum measured concentrations in the ambient data set analyzed for that receptor (*i.e.,* ozone conducive meteorology). The EPA also recognizes that previously experienced meteorological conditions (*e.g.,* dominant wind direction, temperatures, air mass patterns) promoting ozone formation that led to maximum concentrations in the measured data may reoccur in the future. The maximum design value gives a reasonable projection of future air quality at the receptor under a scenario in which such conditions do, in fact, reoccur. The projected maximum design value is used to identify upwind emissions that, under those circumstances, could interfere with the downwind area's ability to maintain the NAAQS.

Recognizing that nonattainment receptors are also, by definition, maintenance receptors, the EPA often uses the term ''maintenance-only'' to refer to those receptors that are not nonattainment receptors. Consistent with the concepts for maintenance receptors, as described above, the EPA identifies ''maintenance-only'' receptors as those monitoring sites that have projected average design values above the level of the applicable NAAQS, but that are not currently measuring nonattainment based on the most recent official design values. In addition, those monitoring sites with projected average design values below the NAAQS, but with projected maximum design values above the NAAQS are also identified as ''maintenance only'' receptors, even if they are currently measuring nonattainment based on the most recent official design values.

[28] *See* 76 FR 48208 (August 8, 2011). CSAPR Update and Revised CSAPR Update also used this approach. See 81 FR 74504 (October 26, 2016) and 86 FR 23054 (April 30, 2021).

3. Step 2 of the 4-Step Interstate Transport Framework

In Step 2, the EPA quantifies the contribution of each upwind state to each receptor in the 2023 analytic year. The contribution metric used in Step 2 is defined as the average impact from each state to each receptor on the days with the highest ozone concentrations at the receptor based on the 2023 modeling. If a state's contribution value does not equal or exceed the threshold of 1 percent of the NAAQS (*i.e.,* 0.70 parts per billion (ppb) for the 2015 8-hour ozone NAAQS), the upwind state is not ''linked'' to a downwind air quality problem, and the EPA, therefore, concludes that the state does not significantly contribute to nonattainment or interfere with maintenance of the NAAQS in the downwind states. However, if a state's contribution equals or exceeds the 1 percent threshold, the state's emissions are further evaluated in Step 3, considering both air quality and cost as part of a multi-factor analysis, to determine what, if any, emissions might be deemed ''significant'' and, thus, must be eliminated under CAA section 110(a)(2)(D)(i)(I). The EPA is proposing to rely in the first instance on the 1 percent threshold (*i.e.,* 0.70 ppb) for the purpose of evaluating a state's contribution to nonattainment or maintenance of the 2015 8-hour ozone NAAQS at downwind receptors. This is consistent with the Step 2 approach that EPA applied in CSAPR for the 1997 ozone NAAQS, which has subsequently been applied in the CSAPR Update when evaluating interstate transport obligations for the 2008 ozone NAAQS. The EPA continues to find 1 percent to be an appropriate threshold. For ozone, as the EPA found in the Clean Air Interstate Rule (CAIR), CSAPR, and CSAPR Update, a portion of the nonattainment problems from anthropogenic sources in the U.S. result from the combined impact of relatively small contributions from many upwind states, along with contributions from in-state sources and, in some cases, substantially larger contributions from a subset of particular upwind states. The EPA's analysis shows that much of the ozone transport problem being analyzed in this proposed rulemaking is still the result of the collective impacts of contributions from many upwind states. Therefore, application of a consistent contribution threshold is necessary to identify those upwind states that should have responsibility for addressing their contribution to the downwind nonattainment and maintenance problems to which they collectively contribute. Continuing to use 1 percent of the NAAQS as the screening metric to evaluate collective contribution from many upwind states also allows the EPA (and states) to apply a consistent framework to evaluate interstate emissions transport under the interstate transport provision from one NAAQS to the next. *See* 81 FR at 74518 (October 26, 2016). *See also* 86 FR at 23085 (April 30, 2021) (reviewing and explaining rationale from CSAPR, 76 FR at 48237–38 (August 8, 2011), for selection of 1 percent threshold).

The EPA's August 2018 memorandum recognized that in certain circumstances, a state may be able to establish that an alternative contribution threshold of 1 ppb is justifiable. Where a state relies on this alternative threshold, and where that state determined that it was not linked at Step 2 using the alternative threshold, the EPA will evaluate whether the state provided a technically sound assessment of the appropriateness of using this alternative threshold based on the facts and circumstances underlying its application in the particular SIP submission.

4. Step 3 of the 4-Step Interstate Transport Framework

Consistent with the EPA's longstanding approach to eliminating significant contribution or interference with maintenance, at Step 3, states linked at Steps 1 and 2 are generally expected to prepare a multifactor assessment of potential emissions controls. The EPA's analysis at Step 3 in prior Federal actions addressing interstate transport requirements has primarily focused on an evaluation of cost-effectiveness of potential emissions controls (on a marginal cost-per-ton basis), the total emissions reductions that may be achieved by requiring such controls (if applied across all linked upwind states), and an evaluation of the air quality impacts such emissions reductions would have on the downwind receptors to which a state is linked; other factors may potentially be relevant if adequately supported. In general, where the EPA's or alternative air quality and contribution modeling establishes that a state is linked at Steps 1 and 2, it will be insufficient at Step 3 for a state merely to point to its existing rules requiring control measures as a basis for approval. In general, the emissions-reducing effects of all existing emissions control requirements are already reflected in the air quality results of the modeling for Steps 1 and 2. If the state is shown to still be linked to one or more downwind receptor(s), states must provide a well-

documented evaluation determining whether their emissions constitute significant contribution or interference with maintenance by evaluating additional available control opportunities by preparing a multifactor assessment. While the EPA has not prescribed a particular method for this assessment, the EPA expects states at a minimum to present a sufficient technical evaluation. This would typically include information on emissions sources, applicable control technologies, emissions reductions and costs, cost effectiveness, and downwind air quality impacts of the estimated reductions, before concluding that no additional emissions controls should be required.[29]

5. Step 4 of the 4-Step Interstate Transport Framework

At Step 4, states (or the EPA) develop permanent and federally enforceable control strategies to achieve the emissions reductions determined to be necessary at Step 3 to eliminate significant contribution to nonattainment or interference with maintenance of the NAAQS. For a state linked at Steps 1 and 2 to rely on an emissions control measure at Step 3 to address its interstate transport obligations, that measure must be included in the state's SIP so that it is permanent and federally enforceable. *See* CAA section 110(a)(2)(D) (''Each such [SIP] shall . . . contain adequate provisions . . .''). *See also* CAA section 110(a)(2)(A); *Committee for a Better Arvin* v. *U.S. E.P.A.,* 786 F.3d 1169, 1175–76 (9th Cir. 2015) (holding that measures relied on by state to meet CAA requirements must be included in the SIP).

II. West Virginia's SIP Submission Addressing Interstate Transport of Air Pollution for the 2015 8-Hour Ozone NAAQS

On September 14, 2018, the West Virginia Department of Environmental Protection (WVDEP), on behalf of the State of West Virginia, made a SIP submission to address most of the 2015 8-hour ozone NAAQS i-SIP requirements under CAA section 110(a)(2), except for the CAA section 110(a)(2)(D)(i)(I) (the ''Good Neighbor'' or ''interstate transport'') requirements, which West Virginia proposed to address in a separate SIP submittal. The EPA published a final approval of this SIP submission on March 17, 2020. 85 FR 15071. On February 4, 2019, WVDEP submitted a separate, supplemental SIP revision addressing only the CAA Section 110(a)(2)(D)(i)(I) interstate transport requirements for the 2015 8-hour ozone NAAQS (the 2019 SIP).[30] West Virginia's 2019 SIP submittal evaluated different modeling options, provided an analysis of ozone monitoring data and emission trends, and argued that the State has already implemented adequate measures to address pollutant transport that may significantly contribute to downwind states' ozone maintenance and nonattainment problems, before concluding that West Virginia has satisfied its section 110(a)(2)(D)(i)(I) Good Neighbor obligations for the 2015 8-hour ozone NAAQS.

WVDEP requested that the EPA ''conditionally'' approve the 2019 SIP submittal, because at the time of submission, WVDEP had a proposed rulemaking pending before the West Virginia Legislature for approval during the 2019 legislative session. The proposed rulemaking, entitled ''45CSR43—Cross-State Air Pollution Rule to Control Annual Nitrogen Oxide Emissions, Annual Sulfur Dioxide Emissions and Ozone Season Nitrogen Oxide Emissions,'' would incorporate by reference into the West Virginia regulations the following emissions trading programs set forth in the CSAPR and CSAPR Update regulations: 40 CFR part 97, subpart AAAAA (CSAPR NO_X Annual Trading Program), subpart CCCCC (CSAPR SO_2 Group 1 Trading Program), and subpart EEEEE (CSAPR NO_X Ozone Season Group 2 Trading Program). Following the submission of this 2019 SIP revision, the West Virginia Legislature approved the state regulation incorporating by reference these subparts, and WVDEP submitted a SIP revision requesting that the EPA approve this regulation into the West Virginia SIP on June 5, 2019. The EPA proposed approval of this SIP revision on August 16, 2019. 84 FR 41944.[31] WVDEP claimed that following the EPA final approval of the SIP revision incorporating these programs, the West Virginia SIP would contain all the measures necessary to ensure that it met the good neighbor obligations of the CAA section 110(a)(2)(D)(i)(I) for the 2015 8-hour ozone NAAQS. The EPA has not taken final action on that SIP revision.[32]

WVDEP's submittal to address interstate transport for the 2015 8-hour ozone NAAQS roughly followed the 4-step interstate transport framework, as briefly described here. At Step 1, WVDEP discussed and compared the EPA's transport modeling provided in the March 2018 memorandum against transport modeling provided by Alpine and LADCO and decided that the Alpine modeling was the ''most appropriate, robust modeling available to identify the nonattainment and maintenance receptors to which West Virginia significantly contributes.'' Alpine released air quality modeling in June 2018, which used a 12-km grid (supplemented with two 4-km nested grids) based on the EPA's 2023en modeling platform and preliminary source contribution assessment. In addition to air quality modeling, the Alpine TSD[33] included a discussion of ''Selected SIP Revision Approaches'' based on information on the ''flexibilities'' listed in an appendix to the EPA's March 2018 Memorandum. Alpine's air quality modeling incorporated meteorological data from the WRF model along with emissions data developed using SMOKE, MOVES2014, and BEIS version 3.61. Alpine used CAMx, and the OSAT/APCA tool to project ozone concentrations at downwind receptors. The modeling used 2023 as the projection year based on the EPA's guidance in the 2017 Memorandum stating that 2023 was the appropriate year to use. As shown in Table 1 of this document, Alpine modeling projected that in the Mid-Atlantic region, one receptor would have nonattainment issues and nine receptors would have maintenance problems in 2023 with respect to the 2015 ozone NAAQS.

[29] As examples of general approaches for how such an analysis could be conducted for their sources, states could look to the CSAPR Update, 81 FR 74504, 74539–51; CSAPR, 76 FR 48208, 48246–63 (August 8, 2011); CAIR, 70 FR 25162, 25195–229 (May 12, 2005).; or the NO_X SIP Call, 63 FR 57356, 57399–405 (October 27, 1998). *See also* Revised CSAPR Update, 86 FR 23054, 23086–23116 (April 30, 2021). Consistently across these rulemakings, the EPA has developed emissions inventories, analyzed different levels of control stringency at different cost thresholds, and assessed downwind air quality improvements.

[30] *See* the 2019 SIP submittal included in docket EPA–R03–OAR–2021–0873.

[31] Docket No. EPA–R03–OAR–2019–0349.

[32] The D.C. Circuit court's decision in *Wisconsin* v. *EPA,* 938 F.3d 303 (September 13, 2019) remanding the CSAPR Update rule to EPA for further consideration prevented final approval of West Virginia's SIP submission.

[33] *See* Appendix E of the WVDEP submittal. ''Good Neighbor'' Modeling Technical Support Document for 8-Hour Ozone State Implementation Plans.'' Alpine Geophysics, June 2018.

TABLE 1—RECEPTORS IDENTIFIED BY WEST VIRGINIA USING ALPINE'S JUNE 2018 MODELING

Receptor ID	Location	Nonattainment/ maintenance	2023 Average design value (ppb)	2023 Maximum design value (ppb)	2014–2016 Actual design value (ppb)
240251001	Harford, MD	Nonattainment	71.1	73.5	73
551170006	Sheboygan, WI	Nonattainment	71.7	74.0	79
90010017	Fairfield, CT	Maintenance	69.2	71.5	80
90013007	Farifield, CT	Maintenance	69.7	73.6	81
90019003	Farifield, CT	Maintenance	69.9	72.7	83
90099002	New Haven, CT	Maintenance	70.3	73.0	76
90110124	New London, CT	Maintenance	68.2	71.3	72
260050003	Allegan, MI	Maintenance	70.3	73.1	75
340150002	Gloucester, NJ	Maintenance	68.8	71.0	74
360850067	Richmond, NY	Maintenance	69.6	71.0	76
361030002	Suffolk, NY	Maintenance	70.7	72.1	72
421010024	Philadelphia, PA	Maintenance	68.0	71.0	77

At Step 2 of the analysis, WVDEP noted that the Alpine modeling projected that West Virginia would be ''linked'' to the only downwind 2023 nonattainment receptor and three maintenance receptors in the Mid-Atlantic 4-km region. The contribution results of the Alpine modeling are shown in Table 2 of this document. WVDEP noted that the Alpine modeling projected that West Virginia's largest identified contribution to downwind 8-hour ozone nonattainment and maintenance receptors was 2.52 ppb and 1.63 ppb, respectively.

TABLE 2—WEST VIRGINIA'S CONTRIBUTION TO RECEPTORS BASED ON ALPINE'S JUNE 2018 MODELING

Receptor ID	Location	Nonattainment/maintenance	2023 Average design value (ppb)	2023 Maximum design value (ppb)	West Virginia contribution (ppb)
240251001	Harford County, MD	Nonattainment	71.1	73.5	2.52
340150002	Gloucester County, NJ	Maintenance	68.8	71.0	1.63
360850067	Richmond County, NY	Maintenance	69.6	71.0	0.71
421010024	Philadelphia County, PA	Maintenance	68.0	71.0	1.21

WVDEP identified specific receptors for further analysis, based upon the Alpine modeling that indicated that emissions from the State would be ''linked'' to the downwind ozone nonattainment receptor at Harford, Maryland, and to three maintenance receptors at Gloucester, New Jersey; Richmond, New York; and Philadelphia, Pennsylvania. Therefore, WVDEP stated that further review and analysis relevant to those areas was warranted. With respect to these specific monitors, WVDEP also presented further analysis of the air pollution problems at these four locations in Section 4 of the SIP submittal, entitled ''Flexibilities.''

At Step 3, WVDEP noted that it is necessary to identify the emissions reductions necessary (if any), considering cost and air quality factors, to prevent the identified upwind state from contributing significantly to downwind air quality problems. To do this, WVDEP reviewed NO_X emissions data from EPA's 2008, 2011, 2014 and 2017 NEI Air Pollution Emissions Trends Data website, to evaluate emissions' trends data for all Tier 1 Categories from 1990 through 2017.[34] This review determined that six categories of Tier 1 sources accounted for approximately 95% of the State's NO_X emissions in 2017, and thus WVDEP focused its evaluation of potential controls and the cost-effectiveness of those controls on these six categories of sources in West Virginia.

For two of these categories—highway vehicles and off-highway vehicles—WVDEP determined that these emission sources are regulated by the Federal government, and therefore declined to conduct any further analysis of emissions reduction opportunities. For the other four categories—fuel combustion electric utilities, fuel combustion industrial, fuel combustion other, and petroleum and related industries—WVDEP grouped these into two categories for analysis: EGUs and non-EGUs. For the EGU category, WVDEP identified the shutdown of six EGUs since 2011 and the amount of emissions that these sources emitted prior to shutdown. For those EGUs still operating, WVDEP relied upon the EPA's analysis in the proposed CSAPR Update for its finding that ''because all identified highly cost-effective emission reductions have already been implemented with respect to EGUs, WV finds that no additional highly cost-effective reductions are available for EGUs for the 2015 ozone NAAQS.''

For the non-EGU categories, WVDEP relied upon a technical support document (TSD) developed by the EPA analyzing available controls and the costs for non-EGU sources for the CSAPR Update. This TSD identified nine non-EGU sources in West Virginia emitting more than 100 tons per year of NO_X, and 21 West Virginia sources emitting between 25 and 100 tons per year of NO_X. WVDEP then listed those sources in these two groupings which have shut down, or will shut down in the near future, and the reduction in NO_X emissions from the 2011 base year attributable to these past and future shutdowns and various other information before determining that ''[t]he shutdown of the identified 10 sources; the required shutdown of the

[34] This website provides current emissions trends data for all Tier 1 Categories from 1990 through 2017. *See also https://www.epa.gov/air-emissions-inventories/what-sources-make-tier-1-categories-used-emissions-trends.*

additional five sources; and the current level of control on the remaining 20 sources, in conjunction with the implementation of the Control Measures programs listed in Section 6, represent the implementation of reasonable control measures in West Virginia.''

For the petroleum category, WVDEP separately opined that its approved permitting programs would prevent new or modified sources from causing or contributing to a violation of the NAAQS and included a discussion of these programs in section 6.1 of the SIP submittal.

At Step 4 of its analysis, WVDEP identified the control measures it has already implemented or is subject to that ''reasonably'' reduce emissions from relevant sources located in the State. Among the measures identified by WVDEP in its SIP submittal are permitting programs, stationary source control measures, and mobile source control measures. WVDEP also determined that the adoption of a regional trading program to replace the CSAPR Update FIP under 45CSR43 was sufficient to address the State's significant contribution to the downwind receptors. Upon approval of West Virginia's 45CSR43 into the SIP, WVDEP states that its SIP will contain the necessary measures to reduce the State's impact on the identified downwind receptors for purposes of the 2015 ozone NAAQS.

Under the permitting programs, WVDEP referenced the State's NSR permit program, which includes revision of applications, determination of permit applicability and issuance of permits for both minor [35] and major [36] sources. Under the minor source NSR program, the construction or modification of a source with the potential to emit six or more pounds per hour (lbs/hr), or greater than 144 pounds per calendar day, of a regulated pollutant, including ozone precursors, requires that the source obtain a permit under the state rule 45CSR13. WVDEP stated that ''45CSR13 is the mechanism under which NSPS are applied to a given minor source,'' and reductions from sources subject to NSPS are assumed to be equivalent to reasonably available control technology/reasonably available control measures (RACT/RACM).

For major stationary sources, WVDEP referenced two additional permitting programs: One that satisfies the prevention of significant deterioration (PSD) requirements under Part C of Title 1 of the CAA, and another that satisfies the nonattainment area NSR (NNSR) requirements under Part D of the CAA. These are codified at 45CSR14 [37] and 45CSR19,[38] respectively. WVDEP asserts that the PSD regulations at 45CSR14 regulate future growth and thus provide for continued maintenance of the 2015 8-hour ozone NAAQS. WVDEP also notes that, pursuant to CAA section 165(a)(3), WVDEP is authorized to implement the existing PSD permit program to ensure that construction and modification of a major source will not cause or contribute to violations of the NAAQS.[39] The State explained that the NNSR regulations at 45CSR19 cover new major sources and major modifications, not subject to PSD, in nonattainment areas. The State explained that this regulation contains a significance level for ozone of 40 tons per year of VOC or NO_X. WVDEP specified in its SIP submittal that there are no areas designated as nonattainment for the 2008 or 2015 ozone NAAQS in West Virginia.

For stationary sources, WVDEP's submittal also included a list of other federally established control measures including: (i) New source performance standards (40 CFR part 60); (ii) the Acid Rain Program; (iii) the NO_X SIP call; (iv) the CAIR; (v) CSAPR; (vi) the CSAPR Update; (vii) solid waste combustion rules (40 CFR part 60); and (viii) the maximum achievable control technology (MACT) program (*i.e.,* the NESHAPS at 40 CFR part 63).

In addition, WVDEP included a list of control measures for mobile sources that EPA has established. These control measures include: (i) The 2007 heavy-duty highway rule in 40 CFR part 86, subpart P; (ii) Tier 2 vehicle and gasoline sulfur program at 40 CFR part 80, subpart H, 40 CFR part 85 and 40 CFR part 86; (iii) Tier 3 motor vehicle emission and fuel standards codified under 40 CFR parts 79, 80, 85, 86, 600, 1036, 1037, 1039, 1042, 1048, 1054, 1065, and 1066; (iv) Tier 4 vehicle standards; and (v) the nonroad diesel emissions program at 40 CFR part 89.

In conclusion, following a review of the emission reductions created by shutdowns, and various existing emission control requirements, WVDEP states that ''upon incorporation of 45CSR43 into the SIP, no additional highly cost-effective reductions are available for the 2015 8-hour ozone NAAQS.''

III. EPA Evaluation

The EPA is proposing to find that WVDEP's February 4, 2019 SIP submission does not meet the State's obligations with respect to prohibiting emissions that contribute significantly to nonattainment or interfere with maintenance of the 2015 8-hour ozone NAAQS in any other state. The proposed disapproval is based on both newer, updated modeling performed by the EPA that was not available when WVDEP submitted its SIP submission to address the requirements of section 110(a)(2)(D)(i)(I) for the 2015 ozone NAAQS, and the EPA's evaluation of WVDEP's SIP submission using the 4-step interstate transport framework.

A. West Virginia

1. Evaluation of Information Provided by West Virginia Regarding Steps 1 and 2

As explained in Section II of this document, at Step 1 of the 4-Step interstate transport framework, WVDEP used the Alpine modeling released in June 2018 to identify any areas where that modeling would project nonattainment or maintenance problems in 2023. Although Alpine's June 2018 modeling TSD describes several potential concepts identified by outside parties and listed in an appendix to the EPA's March 2018 Memorandum, it does not appear that WVDEP relied on those so-called ''flexibilities.'' [40] The nonattainment and maintenance receptors identified in Alpine's modeling under Step 1 are listed in Table 1 in Section II of this document. Based on the results of the Alpine modeling alone, WVDEP acknowledged

[35] Permitting requirements for minor sources are codified at 45CSR13—*Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Administrative Updates, Temporary Permits, General Permits, Permission to Commence Construction, and Procedures for Evaluation.*

[36] Permitting requirements for major sources are codified at 45CSR14—*Permits for the Construction and Major Modification of Major Stationary Sources of Air Pollution for the Prevention of Significant Deterioration,* and 45CSR19—*Permits for Construction and Major Modification of Major Stationary Sources Which Cause or Contribute to Nonattainment Areas* and 45CSR30—*Requirements for Operating Permits.*

[37] *Permits for the Construction and Major Modification of Major Stationary Sources of Air Pollution for the Prevention of Significant Deterioration.*

[38] *Permits for Construction and Major Modification of Major Stationary Sources Which Cause or Contribute to Nonattainment Areas.*

[39] *See* 45CSR 14–9.1 and 40 CFR 51.166(k).

[40] The ''flexibilities'' identified in the Alpine modeling TSD, but not used by West Virginia, include removing Canadian and Mexican contributions from modeling results, using an alternate significant contribution threshold in Step 2 of EPA's four-step transport interstate framework, using relative significant impact amongst those states similarly contributing to a downwind receptor under Step 3 of EPA's four-step transport interstate framework, and using alternative timeframes to address the ''interference with maintenance'' prong of the good neighbor provision.

in its SIP submission that it should proceed to Step 2 of the analysis.

At Step 2 of its analysis, WVDEP again relied on Alpine's June 2018 modeling results and highlighted any receptors to which emissions from the State contributed more than 1 percent of the NAAQS (*i.e.,* >0.70 ppb). Table 2 in Section II of this document identifies receptors from Alpine's June 2018 modeling that are projected to receive contribution levels from emissions in West Virginia above the 1 percent threshold. According to Alpine's June 2018 modeling projections, emissions from West Virginia would significantly contribute to the Harford, MD nonattainment receptor, with a 2.52 ppm contribution, and to the Gloucester, NJ, Richmond, NY, and Philadelphia, PA maintenance receptors with contributions of 1.63, 0.71, and 1.21 ppb, respectively.

WVDEP concluded in its own analysis that it was linked using the 1 percent of the NAAQS threshold and acknowledged that ''it is [then] necessary to identify the emissions reductions (if any), considering cost and air quality factors, to prevent West Virginia from contributing to downwind air quality problems,'' [41] which is Step 3 of the 4-step interstate transport framework.

Although WVDEP relied on alternative modeling instead of the EPA's modeling included in the March 2018 memorandum, WVDEP acknowledged in its SIP submission that it is linked to downwind receptors and is projected to contribute above the 1 percent threshold to certain nonattainment and/or maintenance receptors in 2023. Because the alternative modeling relied on by the state also demonstrates that a linkage exists between the state and downwind receptors at Step 2, the EPA need not conduct a comparative assessment of the alternative modeling. The State's analysis corroborates the conclusion in the EPA's most recent modeling.

2. Results of the EPA's Step 1 and Step 2 Modeling and Findings for West Virginia

As described in Section I of this document, the EPA performed air quality modeling using the 2016v2 emissions platform to project design values and contributions for 2023. These data were examined to determine if West Virginia contributes at or above the threshold of 1 percent of the 2015 8-hour ozone NAAQS (*i.e.,* 0.70 ppb) to any downwind nonattainment or maintenance receptor. As shown in Table 1 of this document, the data [42] indicate that in 2023, emissions from West Virginia contribute greater than 1 percent of the NAAQS to nonattainment or maintenance-only receptors in Fairfield County-Westport, Fairfield County-Stratford, and New Haven County in Connecticut, as well as Bucks County, Pennsylvania.[43]

TABLE 3—WEST VIRGINIA'S LINKAGE RESULTS BASED ON EPA 2016v2-BASED MODELING

Receptor ID	Location	Nonattainment/maintenance	2023 Average design value (ppb)	2023 Maximum design value (ppb)	West Virginia contribution (ppb)
90099002	New Haven, CT	Nonattainment	71.8	73.9	1.45
420170012	Bucks, PA	Maintenance	70.7	72.2	1.44
90019003	Fairfield-Westport, CT	Nonattainment	76.1	76.4	1.34
90013007	Fairfield-Stratford, CT	Nonattainment	74.2	75.1	1.30

We recognize that the results of EPA (2011 and 2016 base year) and Alpine (2011 base year) modeling indicated different receptors and linkages at Steps 1 and 2 of the framework. These differing results regarding receptors and linkages can be affected by the varying meteorology from year to year, but this does not indicate that the modeling or the EPA or the state's methodology for identifying receptors or linkages is inherently unreliable. Rather, these three separate modeling runs all indicated: (i) That there would be receptors in areas that would struggle with nonattainment or maintenance in the future, and (ii) that West Virginia was linked to some set of these receptors, even if the receptors and linkages differed from one another in their specifics (*e.g.,* a different set of receptors were identified to have nonattainment or maintenance problems, or West Virginia was linked to different receptors in one modeling run versus another). The EPA thinks this common result indicates that West Virginia's emissions have been substantial enough to generate linkages at Steps 1 and 2 to some set of downwind receptors, under varying assumptions and meteorological conditions, even if the precise set of linkages changed between modeling runs. Under these circumstances, we think it is appropriate to proceed to a Step 3 analysis to determine what portion of West Virginia's emissions should be deemed ''significant.'' In doing so, the EPA does not necessarily agree with the methods and assumptions contained in the Alpine modeling relied on by WVDEP in this action, nor that we consider our own earlier modeling to be of equal reliability relative to more recent modeling. However, where alternative or older modeling generated linkages, even if those linkages differ from linkages in the EPA's most recent set of modeling, that information provides further evidence, not less, in support of a conclusion that the state is required to proceed to Step 3 to further evaluate its emissions.

Therefore, based on the EPA's evaluation of the information submitted by West Virginia, and based on the EPA's most recent modeling results for 2023, the EPA proposes to find that West Virginia is linked at Steps 1 and 2 and has an obligation to assess potential emissions reductions from sources or other emissions activity at Step 3 of the 4-step framework.

[41] *See* the February 4, 2019 SIP submittal included in docket EPA–R03–OAR–2021–0873.

[42] Design values and contributions at individual monitoring sites nationwide are provide in the file: 2016v2_DVs_state_contributions.xlsx which is included in docket ID No. EPA–HQ–OAR–2021–0663.

[43] These modeling results are consistent with the results of a prior round of 2023 modeling using the 2016v1 emissions platform which became available to the public in the fall of 2020 in the Revised CSAPR Update, as noted in Section I of this document. That modeling showed that West Virginia had a maximum contribution greater than 0.70 ppb to at least one nonattainment or maintenance-only receptor in 2023. These modeling results are included in the file ''Ozone Design Values And Contributions Revised CSAPR Update.xlsx'' in docket EPA–HQ–OAR–2021–0663.

3. West Virginia's Analysis of ''Flexibilities''

Before proceeding to Step 3 of the analysis, WVDEP examined several so-called ''flexibilities'' identified in Attachment A to the EPA's March 2018 Memorandum in section 4 of its SIP submission,[44] ostensibly to show that West Virginia should not be seen as contributing significantly to certain 2023 nonattainment or maintenance receptors identified by the Alpine modeling. Although the Alpine modeling is now out of date, and the EPA is primarily relying upon the updated 2023 modeling using the 2016v2 emissions platform to inform its decision, the EPA has evaluated the ''flexibilities'' discussed by West Virginia to see if any of these ideas continue to have relevance to this proposed disapproval action.

a. HYSPLIT Back Trajectories

WVDEP evaluated the potential interstate impacts of emissions from West Virginia on other states, using HYPLIT modeling. To do so, WVDEP considered impacts at the one nonattainment receptor (Harford, MD) and three maintenance receptors (Philadelphia, PA; Gloucester, NJ; Richmond, NY) to which West Virginia was linked by the Alpine 4-km modeling. WVDEP identified the exceedance days for each of those receptors during the 2015–2017 time period. For the identified exceedance days, West Virginia then used the National Oceanic and Atmospheric Administration's (NOAA) Air Resources Laboratory's Hybrid Single-Particle Lagrangian Integrated Trajectory (HYSPLIT) model to develop a back trajectory analysis for each day to show the origin of air masses and establish emission source-receptor relationships. These back trajectory analyses are shown in Appendix H of the West Virginia 2019 SIP submittal. Using this approach, WVDEP concluded that the 291 back trajectory analyses ''demonstrate that on the majority of the days on which ozone exceedances occurred at the subject receptors, the origin of the air masses impacting the receptors did not originate within, or pass through, West Virginia's borders in the 48 hours preceding the exceedance.'' [45]

The EPA notes that WVDEP's own back trajectory analysis did not indicate that there were no cases when air masses associated with exceedance days at linked receptors passed over West Virginia. Rather, the state claimed that air masses did not move across West Virginia on a ''majority'' of the days the State examined ''in the 48 hours preceding'' the exceedance. WVDEP further argued that only some of the air masses moving across the state moved across ''an industrial area where air emissions are more predominate.'' Thus, WVDEP's evaluation of HYSPLIT back trajectories still show linkages between some downwind exceedances and air masses originating or passing through West Virginia.

In addition, the data in Appendix H of the WVDEP submittal indicate that one or more of the daily back trajectories from the Harford, Maryland receptor moved across West Virginia on 50 percent of the exceedance days between 2015 and 2017 at this receptor. Furthermore, the line thickness displayed on trajectory plots does not represent the geographic extent of the transported air mass, but rather they represent the centerline of an air parcel's motion, calculated to understand the trajectory line itself. Uncertainties are clearly present in these results and these uncertainties change with trajectory time and distance traveled. In this regard, one should avoid concluding a region is not along a trajectory's path if the center line of that trajectory missed the region by a relatively small distance.[46] In contrast, the EPA's analysis of transported emissions as discussed in Section I.C of this document, above, uses updated, photochemical grid modeling designed to assess ozone transported to downwind monitors across the entire region and over extended timeframes that fully account for fate and transport of ozone-precursors over longer distances. Thus, the EPA finds that WVDEP's back trajectory analysis does not show that West Virginia should not be linked to downwind nonattainment or maintenance receptors in 2023.

b. Downwind Air Quality Context

As the ''context'' surrounding certain downwind receptors, WVDEP presented information regarding other local sources of emissions also contributing to the nonattainment or maintenance problems at those locations. In Section 4.2 of the SIP submittal, WVDEP analyzed various types of information.[47] From this analysis, WVDEP concluded that all of the projected receptors in the Alpine modeling are located in 2015 8-hour ozone NAAQS nonattainment areas within the Interstate 95 highway corridor, that high population areas ''closely correspond'' to the nonattainment areas, and that high Vehicle Miles Traveled (VMT) also ''closely correlate'' with the nonattainment areas. WVDEP included a more detailed analysis of these factors in Appendix I of the West Virginia 2019 SIP Submittal.

While the EPA would generally agree that the high VMT along the Interstate 95 corridor, along with high population densities in the various existing and predicted 2023 nonattainment areas, have a large impact on the ozone nonattainment status of these areas, this does not prove that West Virginia's emissions do not also contribute to nonattainment and maintenance problems at those locations. The fact that local sources of emissions also contribute to high ozone levels is neither surprising nor outcome determinative. The EPA has developed the 4-step process to help evaluate whether or not a given state is linked to downwind nonattainment and maintenance problems, and that analysis starts at the question of whether the state's emissions have a projected impact above the 1 percent of the NAAQS threshold in 2023. That value at Step 2 is set relatively low in light of the ''collective contribution'' problem associated with regional ozone transport. The Alpine modeling that WVDEP relied upon shows such impacts above the Step 2 threshold from West Virginia at a number of receptors. The more recent modeling that the EPA has conducted indicates impacts above that threshold at other monitors. Thus, the EPA does not agree that WVDEP's analysis of the relative impacts of local sources compared to the projected impacts of emissions from the state establishes that West Virginia does not significantly contribute to these nonattainment and maintenance areas. Nor would the EPA agree that similar arguments about the ''context'' of local emissions would apply at the more recently identified receptors.

c. International Emissions

The last consideration noted by WVDEP is Section 179B of the CAA, entitled ''International border areas.'' The State focused not on section 179B(a), applicable to states that are required to submit nonattainment plan SIP submissions to address applicable requirements in nonattainment areas, but rather section 179B(b), which applies in the case of a state with a designated ozone nonattainment area that fails to meet the applicable attainment date and thus may trigger a reclassification to the next highest

[44] *See* West Virginia 2019 SIP submittal, p. 14.

[45] *Id.* at 17.

[46] See Area Designations for the 2015 Ozone National Ambient Air Quality Standards memorandum from Janet G. McCabe to the EPA Regional Administrators, February 25, 2016.

[47] *Id.*

classification of ozone nonattainment. Section 179B(b) states:
''Notwithstanding any other provision of law, any State that establishes to the satisfaction of the Administrator that, with respect to an ozone nonattainment area in such State, such State would have attained the national ambient air quality standard for ozone by the applicable attainment date, but for emissions emanating from outside of the United States, shall not be subject to the provisions of section 7511(a)(2) or (5) of this title or section 7511d of this title.'' [48]

West Virginia cites a statement in the TSD for the Alpine modeling which notes that if anthropogenic emissions from Canada and Mexico, tracked as a single tag, are taken into account, then both the EPA and Alpine's modeling demonstrate attainment at the Harford Maryland receptor with the 2015 ozone NAAQS.[49] In other words, simply subtracting the projected impact of international emissions from Canada and Mexico at that receptor would result in ''attainment'' at that location. WVDEP asserts that this fact would allow the State to ''stop at Step 1 of the four-factor process.'' EPA notes that WVDEP only raised this issue with respect to the nonattainment receptor it identified in Harford, Maryland, rather than the maintenance receptors, presumably in recognition of the fact that section 179B(b) pertains to nonattainment areas, rather than maintenance areas.

The EPA disagrees with the theory that section 179B applies in this way. First, the EPA notes that section 179B(b), relied upon and quoted by WVDEP, has no bearing on the issue of interstate transport as posited in the State's SIP submission. That specific statutory provision, by its explicit terms, only applies in the event a state with a designated ozone nonattainment area fails to attain the NAAQS by the applicable attainment date. If, in those circumstances, the state at issue would have attained the NAAQS but for the impacts of international transport, then that state may seek to avoid reclassification to the next level of ozone nonattainment that would otherwise occur upon the EPA making the requisite finding of failure to attain. WVDEP misapplies section 179B(b) when it suggests that it alters the State's obligations with respect to section 110(a)(D)(i)(I), using the example of the impacts at the Harford Maryland receptor identified in the Alpine modeling. However, even if Maryland could in the future seek to invoke section 179B(b), the only effect would be to excuse Maryland from certain additional nonattainment plan requirements of CAA sections 7511(a)(2) and (5) and 7511D. Further, if Maryland were to do so, the mere existence of international transport impacts would not be outcome determinative—even in that context where CAA section 179B(b) actually applies.[50] Section 179B does not supplant the separate obligation of upwind states such as West Virginia to address their interstate transport impacts on other downwind states. It is a separate provision of the CAA intended to address the impacts of international emissions on nonattainment areas.

Second, and more importantly, West Virginia's reasoning related to international emissions is inapplicable to the requirements of CAA section 110(a)(2)(D)(i)(I). The good neighbor provision requires states and the EPA to address interstate transport of air pollution that *contributes to* downwind states' ability to attain and maintain NAAQS. Whether emissions from other states or other countries also contribute to the same downwind air quality issue is irrelevant in assessing whether a downwind state has an air quality problem, or whether an upwind state is significantly contributing to that problem. States are not obligated under CAA section 110(a)(2)(D)(i)(I) to reduce emissions sufficient on their own to resolve downwind receptors' nonattainment or maintenance problems. Rather, states are obligated to eliminate their own ''significant contribution'' or ''interference'' with the ability of other states to attain or maintain the NAAQS.

Indeed, the D.C. Circuit in *Wisconsin* specifically rejected petitioner arguments suggesting that upwind states should be excused from good neighbor obligations on the basis that some other source of emissions (whether international or another upwind state) could be considered the ''but-for'' cause of downwind air quality problem. 938 F.3d 303 at 323–324. The court viewed petitioners' arguments as essentially an argument ''that an upwind State 'contributes significantly' to downwind nonattainment only when its emissions are the sole cause of downwind nonattainment.'' 938 F.3d 303 at 324. The court explained that ''an upwind State can 'contribute' to downwind nonattainment even if its emissions are not the but-for cause.'' *Id.* at 324–325. *See also Catawba County* v. *EPA,* 571 F.3d 20, 39 (D.C. Cir. 2009) (rejecting the argument ''that 'significantly contribute' unambiguously means 'strictly cause' '' because there is ''no reason why the statute precludes EPA from determining that [an] addition of [pollutant] into the atmosphere is significant even though a nearby county's nonattainment problem would still persist in its absence''); *Miss. Comm'n o Envtl. Quality* v. *EPA,* 790 F.3d 138, 163 n.12 (D.C. Cir. 2015) (observing that the argument that ''there likely would have been no violation at all . . . if it were not or the emissions resulting from [another source]'' is ''merely a rephrasing of the but-for causation rule that we rejected in *Catawba County.*''). Therefore, a state is not excused from eliminating its significant contribution on the basis that international emissions also contribute some amount of pollution to the same receptors to which the State is linked.

Therefore, the EPA proposes to find that Section 179B(b) of the CAA does not serve to alleviate West Virginia of any potential obligations under Section 110(a)(2)(D)(i)(I).

EPA will proceed to evaluate the information and analysis WVDEP provided at Step 3 of the 4-step interstate transport framework.

4. Evaluation of Information Provided Regarding Step 3

At Step 3 of the 4-step interstate transport framework, the state should further evaluate its sources of emissions that may impact the relevant downwind receptors, in light of multiple factors, including air quality and cost considerations, to determine what, if any, emissions significantly contribute to nonattainment or interfere with maintenance and, thus, must be eliminated under CAA section 110(a)(2)(D)(i)(I).

To evaluate effectively which emissions in the state should be deemed ''significant'' and therefore prohibited, states generally should prepare an accounting of sources and other emissions activity for relevant pollutants and assess potential, additional emissions reduction opportunities and resulting downwind air quality improvements. The EPA has consistently applied this general approach (*i.e.,* Step 3 of the 4-step

[48] Section 7511(a)(2) relates to the attainment date for severe ozone nonattainment areas, and (a)(5) describes the conditions necessary for a one-year extension of ozone attainment dates. Section 7511d pertains to enforcement for severe and extreme ozone nonattainment areas for failure to attain. Neither provision is germane to this action.

[49] *Id.* at p. 20.

[50] *See* Guidance on the Preparation of Clean Air Act Section 179B Demonstrations for Nonattainment Areas Affected by International Transport of Emissions (December 2020), pages 10–12, available at *https://www.epa.gov/sites/default/files/2020-01/documents/draft_179b_guidance-final_draft_for_posting.pdf.*

interstate transport framework) when identifying emissions contributions that the Agency has determined to be ''significant'' (or interfere with maintenance) in each of its prior Federal, regional ozone transport rulemakings, and this interpretation of the statute has been upheld by the Supreme Court. *See EME Homer City,* 572 U.S. 489, 519 (2014). While the EPA has not directed states that they must conduct a Step 3 analysis in precisely the manner the EPA has done in its prior regional transport rulemakings, state implementation plans addressing the obligations in CAA section 110(a)(2)(D)(i)(I) must prohibit ''any source or other type of emissions activity within the State'' from emitting air pollutants which will contribute significantly to downwind air quality problems. Thus, states must complete something similar to the EPA's analysis (or an alternative approach to defining ''significance'' that comports with the statute's objectives) to determine whether and to what degree emissions from a state should be ''prohibited'' to eliminate emissions that will ''contribute significantly to nonattainment in, or interfere with maintenance of,'' the NAAQS in any other state.

In Step 3, West Virginia evaluated statewide NO_X emissions data from the triennial National Emissions Inventory (NEI) for 2008, 2011, 2014 and 2017, as updated on August 2, 2018, on the EPA's NEI Air Pollution Emissions Trends Data website. This website provides current emissions trends data for all Tier 1 Categories of NO_X emissions from 1990 through 2020.[51] WVDEP's analysis found that of the Tier 1 Categories, six of those categories represented 95% of the total 2017 NO_X emissions from sources in the State. These categories are: (i) Fuel Combustion—Electric Utilities (29.5%); (ii) Fuel Combustion—Industrial (9.1%); (iii) Fuel Combustion—Other (4.8%); (iv) Petroleum and Related Industries (22.8%); (v) Highway Vehicles (21.5%); (vi) and Off-Highway (7.6%). West Virginia therefore focused its Step 3 control and cost analysis on these six categories of sources.

a. Highway Vehicles and Off-Highway

West Virginia's analysis of NEI data indicated that these two Tier 1 source categories combined produced 29.1% of the NO_X emissions in the State in 2017. For these categories of mobile sources, WVDEP noted that such sources are regulated at the Federal level and not the state level, so WVDEP concluded that no further analysis of the Highway Vehicles and Off-Highway categories for additional potential reductions is required. In Section 6.1 of the SIP submission, WVDEP noted and described a number of EPA programs designed to reduce NO_X emissions from mobile sources, including the 2007 Heavy-Duty Highway Rule (40 CFR part 86, subpart P); the Tier 2 Vehicle and Sulfur Program (40 CFR part 80, subpart H; 40 CFR part 85, 40 CFR part 86), Tier 3 Motor Vehicle Emission and Fuel Standards (40 CFR parts 79, 80, 85, 86, 600, 1036, 1037, 1042, 1048, 1054, 1065, and 1066); Tier 4 Vehicle Standards; and the Nonroad Diesel Emissions Program (40 CFR part 89).

Given the magnitude of NO_X emission reductions in West Virginia reflected in the NEI, the EPA agrees that it is appropriate for WVDEP to evaluate these source categories for potential additional controls to reduce interstate transport for the purposes of the 2015 8-hour ozone NAAQS. The EPA does not agree, however, with the State's attempt to categorize certain sectors of emissions as per se beyond its regulatory control. Clearly the State possesses regulatory authority over many categories of sources and other types of ''emissions activity within the state,'' *see* CAA section 110(a)(2)(D)(i). While the EPA generally regulates mobile sources at the Federal level under title II of the CAA, the state also has the authority to undertake any number of measures to reduce emissions from mobile sources through means and techniques that are not preempted by title II. *See, e.g.,* CAA sections 182(b)(3), 182(b)(4), 182(c)(3), 182(c)(4), 182(c)(5), 182(d)(1), 182(e)(3), and 182(e)(4) (identifying programs to control mobile source emissions that states are required to implement depending on the degree of ozone nonattainment). Pursuant to CAA section 116, states retain authority to regulate sources in SIPs, and to do so more stringently than the EPA, unless preempted. For example, many states, including states with receptors to which West Virginia is linked, have adopted California motor vehicle standards as permitted under CAA section 177.[52]

WVDEP's listing of existing Federal control measures for mobile sources does not in and of itself serve as an adequate substitute for a Step 3 analysis of additional potential emission reductions. First, these standards, to the extent they are ''on-the-books,'' are already reflected in the base case air quality modeling conducted at Steps 1 and 2. Further, the listing of existing or on-the-way control measures, whether approved into the State's SIP or not, does not substitute for a complete Step 3 analysis under the EPA's 4-step framework to define ''significant contribution.''

b. Petroleum and Related Industries

For the Petroleum and Related Industries Tier 1 category, WVDEP's analysis indicated that sources of this type produced 22.8% of the 2017 NO_X emissions in the State. West Virginia further acknowledged that this category has been a growing source of emissions in more recent years, but argued that West Virginia's New Source Review (NSR) permitting programs will adequately ensure that emissions from any new or modified sources in this category do not cause or contribute to nonattainment of the NAAQS.[53] West Virginia has a PSD program that requires new or modified major stationary sources located in designated attainment areas to obtain a permit and impose emission controls that meet the best available control technology (BACT) level of control. Similarly, West Virginia has a Nonattainment NSR program that requires new or modified major stationary sources located in designated nonattainment areas to obtain a permit and impose emission controls that meet the lowest achievable emission rate (LAER) level of control. WVDEP asserts that the BACT and LAER requirements are by definition more stringent than the RACT/RACM level of control required in nonattainment plans that states must impose in designated nonattainment areas. As a component of these permitting programs, the State noted that there is also a requirement to consider whether the emissions from the source ''will interfere with attainment or maintenance of an applicable ambient air quality standard.'' The State therefore did not perform an analysis of potential additional control measures or costs for this category of sources.

The EPA agrees with WVDEP's identification of the sources in the Petroleum and Related Industries category from the NEI as sufficiently significant to warrant evaluation for NO_X emission controls. As the State reflected in its SIP submission, the

[51] At the time West Virginia submitted its SIP in 2019, NEI data for 2020 was not available, so West Virginia limited its analysis to data available at that time.

[52] California Air Resources Board, States That Have Adopted California's Vehicle Standards Under Section 177 of the Federal Clean Air Act (Current as of December 6, 2021), *https://ww2.arb.ca.gov/resources/documents/states-have-adopted-californias-vehicle-standards-under-section-177-federal.*

[53] *Id.* at 25.

cumulative NO_X emissions from this category comprise 22.8% of West Virginia's emissions, and thus a proportion of emissions second only to the category that includes EGUs. Further, WVDEP acknowledged that unlike other source categories, the NO_X emissions from this category have been increasing in recent years. In Table 6 of the SIP submission, the State reflected the large increase in such emissions from 2008 through 2017.

Notwithstanding these increases in emissions, WVDEP relies primarily on the existing permitting programs (minor source, PSD, and NNSR) as the basis for concluding that no further controls would be necessary for these sources to address interstate transport problems for purposes of the 2015 8-hour ozone NAAQS. First, WVDEP seems to have done no more than describe the general framework for new source permitting that is mandated of all states under the CAA and has not identified how its state programs in particular go beyond those basic requirements in any manner relevant to ozone transport. Nonetheless, the State is correct that these permitting programs do impose control requirements (*e.g.,* BACT or LAER) and do require an analysis of potential impacts on attainment and maintenance of the NAAQS. But there are likewise important distinctions between the permitting program requirements and interstate transport requirements, including but not limited to: (i) The permitting programs generally apply only to new sources or major modification of existing sources; (ii) the evaluation of impacts on attainment and maintenance in other states in the context of a permit for a single source may not be as robust and have the same geographic scope as that undertaken by states and the EPA for purposes of section 110(a)(2)(D)(i)(I); and (iii) the timing of the permitting process evaluation may have no bearing on the NAAQS at issue (*i.e.,* a permit issued in 2005 would not have considered impacts vis a vis the 2015 8-hour ozone NAAQS). Further, existing sources may have been permitted under a new source permitting program years or even decades ago, before more effective or cheaper emissions control technologies became available.

Thus, even if the permitting programs address new sources of emissions for the intended purposes of those programs, it does not necessarily follow that they automatically meet all other CAA requirements as well. The EPA disagrees, therefore, with the conclusion that the existence of these permitting programs resolves the issue of whether there are additional control measures that the State should impose specifically for purposes of eliminating significant contribution to nonattainment or interference with maintenance at downwind receptors for the 2015 8-hour ozone NAAQS.[54]

In general, the listing of existing or on-the-way control measures, whether approved into the State's SIP or not, does not substitute for a complete Step 3 analysis under EPA's 4-step framework to define ''significant contribution.'' WVDEP did not provide an assessment of the overall effects of these measures, when the emissions reductions would be achieved, and what the overall resulting air quality effects would be at identified out of state receptors. WVDEP did not evaluate additional, potential emissions control opportunities, or their costs or impacts, or attempt to analyze whether, if applied more broadly across linked states, the emissions reductions would constitute the elimination of significant contribution. Although the EPA acknowledges states are not necessarily bound to follow its own analytical framework at Step 3, we note that WVDEP did not do a meaningful analysis of what other potential controls may be necessary to achieve NO_X emission reductions from these sources for the 2015 ozone NAAQS. This would have been similar to the approach to defining significant contribution that EPA has applied in prior rulemakings such as CSAPR and or the CSAPR Update, even if such an analysis is not technically mandatory.

c. Fuel Combustion—Electric Utilities

West Virginia's analysis of NEI data indicated that EGUs produced 30.2% of the NO_X emissions in the State in 2017.[55] The State noted that NO_X emissions from EGUs have already declined as a result of other CAA requirements, such as the Acid Rain Program, the NO_X Budget Trading Program, the CAIR, and the CSAPR programs. As a result of these programs and actions, WVDEP estimated a reduction in ozone season emissions of 75 percent, or almost 2 million tons, since 1997. The EPA acknowledges that these existing programs have already reduced NO_X emissions substantially from EGUs, but the question at issue at this time is whether more NO_X emissions reductions are necessary from such sources for purposes of CAA section 110(a)(2)(D)(i)(I) for the 2015 8-hour ozone NAAQS. Notwithstanding the past reductions of NO_X from EGUs, WVDEP correctly concluded that further analysis of potential controls is necessary.

As one part of this analysis, West Virginia relied on the shutdown of specific EGUs that would further reduce NO_X emissions from the state. West Virginia identified the retirements of six coal-fired power plants (consisting of 17 units total) that have occurred in recent years. Three power plants shut down in September 2012. Three additional power plants shut down in June 2015. WVDEP provided documentation for these units showing that the units were permanently retired, and the Title V permits were surrendered. The State further indicated that should operations resume at any of the shut-down units in the future, the source[56] would have to complete the permitting process as a new facility.

The EPA agrees that these shutdowns will eliminate NO_X emissions from these sources, and thus this may help to reduce the impacts of such emissions from West Virginia at the identified nonattainment and maintenance receptors. Evaluation of further control of these specific EGU sources is not required. However, EPA's most recent 2016v2 emissions platform-based modeling has already taken these shutdowns into account, and projects impacts at nonattainment or maintenance receptors in Connecticut, New York, and Maryland notwithstanding these reductions in emissions. Further, the mere fact that a particular EGU has shutdown does not mean that all associated emissions should be subtracted from the total inventory of a state's emissions. Typically, a shutdown is accompanied by a shift in generation to new sources or existing sources with available capacity, which in turn produces some incremental increase in emissions at those sources. WVDEP did not analyze the net emissions effects of the shutdowns it listed. By contrast, in its most recent modeling, the EPA has thoroughly and comprehensively evaluated emissions from EGUs in West Virginia and other states. The EPA's latest projections of the baseline EGU emissions uses the version 6—Summer 2021 Reference Case of the Integrated Planning Model (IPM). IPM is a multi-

[54] The EPA notes that WVDEP has not explained why new source permitting was a sufficient control measure for interstate ozone transport from the ''Petroleum and Related Industries'' category, but not other source categories, when the new source permitting requirements apply to all new sources.

[55] The narrative text of West Virginia's SIP submission at page 27 says that EGUs contribute 30.2%, while Table 6 of the SIP submission identifies the EGU contribution as 29.5%. This difference in attributed contribution does not change the outcome of EPA's analysis.

[56] The documentation is in Appendix M of West Virginia's 2019 SIP submittal.

regional, dynamic, and deterministic linear programming model of the U.S. electric power sector.[57] The model provides forecasts of least cost capacity expansion, electricity dispatch, and emission control strategies, while meeting energy demand, environmental, transmission, dispatch, and reliability constraints.

The IPM version 6—Summer 2021 Reference Case incorporated recent updates through the Summer of 2021 to account for updated Federal and State environmental regulations for EGUs. This projected base case accounts for the effects of the finalized Mercury and Air Toxics Standards rule, CSAPR, the CSAPR Update, the Revised CSAPR Update, New Source Review settlements, the final effluent limitation guidelines (ELG) Rule, the coal combustion residual (CCR) Rule, and other on-the-books Federal and State rules (including renewable energy tax credit extensions from the Consolidated Appropriations Act of 2021) through early 2021 impacting SO_2, NO_X, directly emitted particulate matter, CO_2, and power plant operations. It also includes final actions EPA has taken to implement the Regional Haze Rule and best available retrofit technology (BART) requirements. Further, the IPM Platform v6 uses demand projections from the Energy Information Agency's (EIA) Annual Energy Outlook (AEO) 2020.[58]

The IPM version 6—Summer 2021 Reference Case uses the National Electric Energy Data System (NEEDS) v6 database as its source for data on all existing and planned-committed units. Units are removed from the NEEDS inventory only if a high degree of certainty could be assigned to future implementation of the announced future closure or retirement.[59] The available retirement-related information was reviewed for each unit, and the following rules are applied to remove:

(i) Units that are listed as retired in the December 2020 EIA Form 860M;

(ii) Units that have a planned retirement year prior to June 30, 2023 in the December 2020 EIA Form 860M;

(iii) Units that have been cleared by a regional transmission operator (RTO) or independent system operator (ISO) to retire before 2023, or whose RTO/ISO clearance to retire is contingent on actions that can be completed before 2023;

(iv) Units that have committed specifically to retire before 2023 under Federal or state enforcement actions or regulatory requirements; and

(v) Finally, units for which a retirement announcement can be corroborated by other available information. Units required to retire pursuant to enforcement actions or state rules on July 1, 2023 or later are retained in NEEDS v6.

Retirement of EGU units that follow this process are excluded from the NEEDS inventory. This includes EGU units as highlighted in the West Virginia SIP submission (Appendix G and Appendix M).[60] Thus, the modeling already accounts for the NO_X emission reductions in West Virginia that resulted from the source shutdowns identified by WVDEP. Further, closures taking place on or after July 1, 2023 are captured as constraints on those units in the IPM modeling, and the units are retired in future year projections per the terms of the related requirements.

As a second part of its Step 3 evaluation of potential controls for EGUs, West Virginia also relied on the EPA's own analysis of potential NO_X emission reductions in connection with the CSAPR Update for the 2008 ozone NAAQS. WVDEP noted that the EPA itself considered the adequacy of NO_X controls for EGUs as part of the CSAPR Update rulemaking. The State pointed to the EPA's analytical process in the CSAPR Update rulemaking concerning factors such as cost, available emissions reductions, and downwind air impacts, and the resulting emission budgets that EPA derived using the ''knee in the curve'' evaluation of cost effectiveness as described in the proposed ''Determination Regarding Good Neighbor Obligations for the 2008 Ozone National Ambient Air Quality Standard.'' In particular, WVDEP emphasized the EPA statement in the proposal that it ''considers the turning on and optimizing of existing SCR controls and the installation of combustion controls to be NO_X control strategies that have already been appropriately evaluated and implemented in the final CSAPR Update.'' The State also pointed to the EPA's proposed CSAPR Close-Out Rule, in which the EPA similarly stated, ''the EPA considers the turning on and optimizing of existing SCR controls and the installation of combustion controls to be NO_X control strategies that have already been appropriately evaluated and implemented in the final CSAPR Update.''

In support of this argument, WVDEP also included a Table containing the ozone season NO_X emission rates in 2017 and 2018 for EGU sources located in West Virginia. Table 7 presents information about the size, fuel type, control type, and emission rates in pounds (lbs) per million British thermal unit (MMBtu) (lbs/MMBtu). This table provides key information about the existing control measures and emission rates for these individual sources, at the time of the SIP submission. However, WVDEP does not provide analysis of any potential additional or strengthened control measures at these sources, that may or may not be needed for purposes of the 2015 8-hour ozone NAAQS.

Finally, for EGUs, WVDEP asserted that because the EPA's CSAPR Update concluded that all identified highly cost-effective emission reductions have already been implemented with respect to EGUs for the 2008 ozone NAAQS, no additional highly cost-effective reductions are available for EGUs for the 2015 8-hour ozone NAAQS. WVDEP argues that because its EGUs are subject to the CSAPR Update (which reflected a stringency at the nominal marginal cost threshold of $1400/ton (2011$) for the 2008 ozone NAAQS), it has already implemented all cost-effective emissions reductions for its EGU fleet.

The EPA disagrees. First, the so-called CSAPR Close-Out has been vacated for unlawfully permitting significant contribution to continue beyond the next attainment date. *New York* v. *EPA,* 781 Fed. App'x 4 (D.C. Cir. 2019). *See also Wisconsin,* 938 F.3d at 318–20. Second, in the CSAPR Update, EPA had promulgated only a partial remedy as to EGUs even with respect to the less stringent *2008* ozone NAAQS, a conclusion affirmed by the D.C. Circuit in *New York* v. *EPA,* 964 F.3d 1214, 1225 (D.C. Cir. 2020). EPA has recently completed action on remand from the *Wisconsin* decision and has promulgated a full remedy as to West Virginia's obligations for the 2008 ozone NAAQS in the Revised CSAPR Update. EPA found that additional, cost-effective emissions reductions from West Virginia's EGUs were indeed necessary to resolve its obligations under the 2008

[57] Detailed information and documentation of EPA's Base Case, including all the underlying assumptions, data sources, and architecture parameters can be found on EPA's website at: *https://www.epa.gov/airmarkets/epas-power-sector-modeling-platform-v6-using-ipm-summer-2021-reference-case.*

[58] Detailed information and documentation of EPA's Base Case, including all the underlying assumptions, data sources, architecture parameters, and IPM comments form can be found on EPA's website at: *https://www.epa.gov/airmarkets/epas-power-sector-modeling-platform-v6-using-ipm-summer-2021-reference-case.*

[59] The ''Capacity Dropped'' and the ''Retired Through 2023'' worksheets in NEEDS lists all units that are removed from the NEEDS v6 inventory—NEEDS v6 Summer 2021 Reference Case. This data can be found on EPA's website at: *https://www.epa.gov/airmarkets/national-electric-energy-data-system-needs-v6.*

[60] The ''Capacity Dropped'' and the ''Retired Through 2023'' worksheets in NEEDS lists all units that are removed from the NEEDS v6 inventory—NEEDS v6 Summer 2021 Reference Case. This data can be found on EPA's website at: *https://www.epa.gov/airmarkets/national-electric-energy-data-system-needs-v6.*

ozone NAAQS, *see* 86 FR 23054, 23100, 23123–24 (April 30, 2021). Therefore, WVDEP's conclusions that no further cost-effective emission reductions are available from its EGUs cannot be sustained.

More fundamentally, relying on the CSAPR Update's (or any other CAA program's) determination of cost-effectiveness without further Step 3 analysis is insufficient. Cost-effectiveness must be assessed in the context of the specific CAA program; assessing cost-effectiveness in the context of ozone transport should reflect a more comprehensive evaluation of the nature of the interstate transport problem, the total emissions reductions available at several cost thresholds, and the air quality impacts of the reductions at downwind receptors. While the EPA has not established a benchmark cost-effectiveness value for the 2015 8-hour ozone NAAQS interstate transport obligations, because the 2015 8-hour ozone NAAQS is a more stringent and more protective air quality standard, it is reasonable to expect control measures or strategies to address interstate transport under this NAAQS to reflect higher marginal control costs. As such, the marginal cost threshold of $1,400/ton for the CSAPR Update (which addresses the 2008 ozone NAAQS and is in 2011$) is not an appropriate cost threshold and cannot be approved as a benchmark to use for interstate transport SIP submissions for the 2015 8-hour ozone NAAQS.

In addition, the updated 2016v2 emissions platform captures all existing CSAPR trading programs in the baseline, and that modeling confirms that these control programs were not sufficient to eliminate West Virginia's linkage at Steps 1 and 2 under the 2015 8-hour ozone NAAQS. Although the state provided an inventory of existing controls on its EGU fleet, based on updated modeling results, the State was therefore obligated at Step 3 to assess *additional* control measures using a multifactor analysis.

d. Fuel Combustion—Industrial and Fuel Combustion—Other

WVDEP's analysis indicated that NO_X emissions from non-EGU sources in two other NEI source categories, Fuel Combustion—Industrial and Fuel Combustion—Other, together comprised 13.9% of the NO_X emissions in West Virginia in 2017. For non-EGU sources of NO_X emissions, WVDEP similarly reviewed EPA documentation for the CSAPR Update, specifically a cost-effectiveness evaluation provided by SRA International (SRA), which was contracted by the EPA to perform this analysis. The analysis split the sources subject to the cost-effectiveness analysis into two groups: Sources with NO_X emissions greater than 100 tons per year (tpy) in 2017, and sources with NO_X emissions between 25 and 100 tpy in 2017. The analysis then reviewed these sources using a $10,000 per ton cost effectiveness threshold. In West Virginia, the analysis identified nine emissions units in the ''greater than 100 tpy'' group and 21 emission units in the ''25 to 100 tpy'' group for further evaluation based on potential for controls.

Of the nine ''greater than 100 tpy'' units, WVDEP noted that four had permanently shutdown, two were subject to a Consent Order to shutdown by December 31, 2021, and one was subject to a Consent Order which established a 0.20 lbs/MMBtu during the ozone season. For the remaining two sources, WVDEP claims that the EPA determined in the CSAPR Close-Out Rule that one source was well controlled and the other did not have any technically and economically available controls. However, EPA made no such determinations with respect to any non-EGUs in the CSAPR Close-Out. Of the 21 ''25 to 100 tpy'' units, WVDEP noted that six units have permanently shutdown and three are subject to a Consent Order to shutdown by December 31, 2021.[61] West Virginia's SIP submission concludes that ''[t]he shutdown of the identified 10 sources; the required shutdown of the additional five sources; and the current level of control on the remaining 20 sources, in conjunction with the implementation of the Control Measures programs listed in Section 6, represent the implementation of reasonable control measures in West Virginia.'' [62]

Given that the emissions from these source categories comprise 13.9% of the total NO_X emissions from West Virginia in the 2017 NEI, the EPA agrees that it is appropriate for WVDEP to evaluate them. The EPA does not, however, agree with this analysis for certain non-EGU sources. First, many of the source shutdowns identified by West Virginia have generally been captured in the data the EPA used to perform the 2016v2 emissions platform-based modeling. Even with the shutdowns, the results of that updated modeling continue to show that West Virginia's sources contribute to nonattainment and maintenance receptors. Moreover, because the 2015 8-hour ozone NAAQS is more stringent than the 2008 ozone NAAQS, the EPA's findings of an acceptable cost threshold for controls (which did not include non-EGUs) in the CSAPR Update, which only addresses transport for the 2008 ozone NAAQS, are not sufficient to evaluate whether West Virginia has adopted all reasonable control measures for these non-EGU sources for purposes of the 2015 8-hour ozone NAAQS. Additional reductions above and beyond those amounts may be needed for a more stringent 2015 8-hour ozone NAAQS, so WVDEP's analysis showing the NO_X reductions attributable to sources shutdown since 2011 did not address the quantity of additional reductions that may be needed from these types of sources for purposes of meeting section 110(a)(2)(D)(i)(I) requirements for the 2015 8-hour ozone NAAQS. Although the State provided an inventory of non-EGU sources based on previous CoST outputs, the State did not assess *additional* control measures using a multifactor analysis for sources that were not shut down, not under the obligations of a consent order, or were not considered well controlled based on the EPA's assessment. The inventory of non-EGU stationary sources included in EPA's most recent emissions inventory indicates that there are a number of such sources that continue to emit NO_X in excess of 100 tpy.[63] WVDEP conducted no analysis of additional emissions control opportunities at these sources.

Finally, relying on a FIP at Step 3 is per se not approvable if the state has not adopted that program into its SIP and instead continues to rely on the FIP. States may not rely on non-SIP measures to meet SIP requirements. *See* CAA section 110(a)(2)(D) (''Each such [SIP] shall . . . contain adequate provisions. . . .''). *See also* CAA section 110(a)(2)(A); *Committee for a Better Arvin* v. *U.S. E.P.A.,* 786 F.3d 1169, 1175–76 (9th Cir. 2015) (holding that measures relied on by state to meet CAA requirements must be included in the SIP). In this matter, West Virginia has adopted a state regulation, 45CSR43,[64] incorporating by reference 40 CFR part 97, subparts AAAAA, CCCCC, and EEEEE, which are the CSAPR NO_X Annual, SO_2 Group 1, and Ozone Season NO_X trading programs. The State designed the SIP submission to incorporate into the West Virginia SIP the requirements of the CSAPR Update

[61] See Appendix N of West Virginia's SIP submittal.

[63] *See* ''wv_og_nonegu_unit_comparison_16_17_18_19_20.xlsx'' in Docket ID No. EPA–R03–OAR–2021–0873.

[64] *See* ''Cross State Air Pollution Rule to Control Annual Nitrogen Oxide Emissions, Annual Sulfur Dioxide Emissions, and Ozone Season Nitrogen Oxide Emission,'' at *https://dep.wv.gov/daq/publicnoticeandcomment/Documents/45CSR43Prop_wAttachments.pdf.*

Group 2 trading program, in order to meet the State's obligations under the good neighbor provision for the 2008 ozone NAAQS. WVDEP submitted this as a SIP revision to the EPA on June 5, 2019, and the EPA proposed approval of the revision.[65] However, following EPA's proposed approval of this SIP submission, a court decision and EPA's subsequent rulemaking in the Revised CSAPR Update have rendered it inadequate. As explained in Section I of this document, the D.C. Circuit issued a decision in *Wisconsin* v. *EPA,* remanding the CSAPR Update because the EPA had failed to require upwind states to eliminate their significant contribution by the next applicable attainment date by which downwind states must come into compliance with the NAAQS, as established under CAA section 181(a). 938 F.3d at 313. The EPA has since issued the Revised CSAPR Update, which released updated budgets and requirements for states, including West Virginia, in order to fully resolve interstate transport obligations for the 2008 ozone NAAQS. As such, the ozone season NO_X budgets in the West Virginia SIP submission for which the EPA proposed approval no longer satisfy the State's interstate transport obligations under the 2008 ozone NAAQS. The EPA is not in this action addressing the pending June 5, 2019 SIP submission and will address it in a separate action. The EPA encourages West Virginia to withdraw the June 5, 2019 SIP submission.

5. Evaluation of Information Provided Regarding Step 4

Step 4 of the 4-step interstate transport framework calls for development of permanent and federally enforceable control strategies to achieve the emissions reductions determined to be necessary at Step 3 to eliminate significant contribution to nonattainment or interference with maintenance of the NAAQS. As mentioned previously, WVDEP's SIP submission did not contain an evaluation of additional emission control opportunities or establish that no additional controls are required beyond their existing controls and regulatory mechanisms to eliminate significant contribution to nonattainment or interference with maintenance of the 2015 8-hour ozone NAAQS. WVDEP additionally identified the incorporation by reference into its SIP certain emission budgets and trading programs created by CSAPR and the CSAPR Update and the EPA's pending final action on this proposed SIP revision to meet its requirements for the good neighbor provisions under the 2015 8-hour ozone NAAQS. However, as explained in our evaluation of Step 3 of WVDEP's 2019 SIP submittal, we do not agree that the requirements of the CSAPR Update satisfy West Virginia's good neighbor obligations under the 2015 8-hour ozone NAAQS (or the 2008 ozone NAAQS). Additionally, the budgets and trading programs created by CSAPR and the CSAPR Update is not a new measure with new requirements, as the FIP implementing these programs has been in effect for several years and the emissions reductions associated have been taken into account in the EPA's modeling of 2023 nonattainment and maintenance receptors using the 2016v2 emissions platform. As a result, EPA proposes to disapprove West Virginia's submittal on the separate, additional basis that the State has not developed the appropriate permanent and enforceable emissions reductions necessary to meet the obligations of CAA section 110(a)(2)(d)(i)(I).

6. Conclusion

Based on the EPA's evaluation of West Virginia's SIP submission, the EPA is proposing to find that West Virginia's February 4, 2019 SIP submission addressing CAA section 110(a)(2)(D)(i)(I) does not meet the State's interstate transport obligations, because it fails to contain the necessary provisions to eliminate emissions that will contribute significantly to nonattainment or interfere with maintenance of the 2015 8-hour ozone NAAQS in any other state.

IV. Proposed Action

We are proposing to disapprove West Virginia's February 4, 2019 SIP submission pertaining to interstate transport of air pollution which will significantly contribute to nonattainment or interfere with maintenance of the 2015 8-hour ozone NAAQS in other states. Under CAA section 110(c)(1), disapproval would establish a 2-year deadline for the EPA to promulgate a FIP for West Virginia to address the CAA section 110(a)(2)(D)(i)(I) interstate transport requirements pertaining to significant contribution to nonattainment and interference with maintenance of the 2015 8-hour ozone NAAQS in other states, unless the EPA approves a new West Virginia SIP submission that meets these requirements. Disapproval does not start a mandatory sanctions clock for West Virginia.

V. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review

This action is not a significant regulatory action as defined by E.O. 12866 and was therefore not submitted to the Office of Management and Budget for review.

B. Paperwork Reduction Act (PRA)

This proposed action does not impose an information collection burden under the PRA because it does not contain any information collection activities.

C. Regulatory Flexibility Act (RFA)

I certify that this action will not have a significant economic impact on a substantial number of small entities under the RFA. This action merely proposes to disapprove a SIP submission as not meeting the CAA.

D. Unfunded Mandates Reform Act (UMRA)

This action does not contain any unfunded mandate as described in UMRA, 2 U.S.C. 1531–1538, and does not significantly or uniquely affect small governments. The action imposes no enforceable duty on any state, local or tribal governments or the private sector.

E. Executive Order 13132: Federalism

This action does not have federalism implications. It will not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government.

F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments

This action does not have tribal implications as specified in Executive Order 13175. This action does not apply on any Indian reservation land, any other area where the EPA or an Indian tribe has demonstrated that a tribe has jurisdiction, or non-reservation areas of Indian country. Thus, Executive Order 13175 does not apply to this action.

G. Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks

The EPA interprets Executive Order 13045 as applying only to those regulatory actions that concern environmental health or safety risks that the EPA has reason to believe may disproportionately affect children, per

[65] *See* 84 FR 41944 (August 16, 2019).

the definition of ''covered regulatory action'' in section 2–202 of the Executive Order. This action is not subject to Executive Order 13045 because it merely proposes to disapprove a SIP submission as not meeting the CAA.

H. Executive Order 13211, Actions That Significantly Affect Energy Supply, Distribution or Use

This action is not subject to Executive Order 13211, because it is not a significant regulatory action under Executive Order 12866.

I. National Technology Transfer and Advancement Act

This rulemaking does not involve technical standards.

J. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations

The EPA believes the human health or environmental risk addressed by this action will not have potential disproportionately high and adverse human health or environmental effects on minority, low-income or indigenous populations. This action merely proposes to disapprove a SIP submission as not meeting the CAA.

K. CAA Section 307(b)(1)

Section 307(b)(1) of the CAA governs judicial review of final actions by the EPA. This section provides, in part, that petitions for review must be filed in the D.C. Circuit: (i) When the agency action consists of ''nationally applicable regulations promulgated, or final actions taken, by the Administrator,'' or (ii) when such action is locally or regionally applicable, if ''such action is based on a determination of nationwide scope or effect and if in taking such action the Administrator finds and publishes that such action is based on such a determination.'' For locally or regionally applicable final actions, the CAA reserves to the EPA complete discretion whether to invoke the exception in (ii).[66]

If the EPA takes final action on this proposed rulemaking, the Administrator intends to exercise the complete discretion afforded to him under the CAA to make and publish a finding that the final action (to the extent a court finds the action to be locally or regionally applicable) is based on a determination of ''nationwide scope or effect'' within the meaning of CAA section 307(b)(1). Through this rulemaking action (in conjunction with a series of related actions on other SIP submissions for the same CAA obligations), the EPA interprets and applies section 110(a)(2)(d)(i)(I) of the CAA for the 2015 ozone NAAQS based on a common core of nationwide policy judgments and technical analysis concerning the interstate transport of pollutants throughout the continental U.S. In particular, the EPA is applying here (and in other proposed actions related to the same obligations) the same, nationally consistent 4-step framework for assessing good neighbor obligations for the 2015 8-hour ozone NAAQS. The EPA relies on a single set of updated, 2016-base year photochemical grid modeling results of the year 2023 as the primary basis for its assessment of air quality conditions and contributions at Steps 1 and 2 of that framework. Further, the EPA proposes to determine and apply a set of nationally consistent policy judgments to apply the 4-step framework. The EPA has selected a nationally uniform analytic year (2023) for this analysis and is applying a nationally uniform approach to nonattainment and maintenance receptors and a nationally uniform approach to contribution threshold analysis.[67]

For these reasons, the Administrator intends, if this proposed action is finalized, to exercise the complete discretion afforded to him under the CAA to make and publish a finding that this action is based on one or more determinations of nationwide scope or effect for purposes of CAA section 307(b)(1).[68]

[66] In deciding whether to invoke the exception by making and publishing a finding that an action is based on a determination of nationwide scope or effect, the Administrator takes into account a number of policy considerations, including his judgment balancing the benefit of obtaining the D.C. Circuit's authoritative centralized review versus allowing development of the issue in other contexts and the best use of agency resources.

[67] A finding of nationwide scope or effect is also appropriate for actions that cover states in multiple judicial circuits. In the report on the 1977 Amendments that revised section 307(b)(1) of the CAA, Congress noted that the Administrator's determination that the ''nationwide scope or effect'' exception applies would be appropriate for any action that has a scope or effect beyond a single judicial circuit. See H.R. Rep. No. 95–294 at 323, 324, reprinted in 1977 U.S.C.C.A.N. 1402–03.

[68] The EPA may take a consolidated, single final action on all of the proposed SIP disapproval actions with respect to obligations under CAA section 110(a)(2)(D)(i)(I) for the 2015 ozone NAAQS. Should EPA take a single final action on all such disapprovals, this action would be nationally applicable, and the EPA would also anticipate, in the alternative, making and publishing a finding that such final action is based on a determination of nationwide scope or effect.

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Ozone.

Authority: 42 U.S.C. 7401 *et seq.*

Dated: February 7, 2022

Diana Esher,

Acting Regional Administrator, Region III.

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ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

EPA–R07–OAR–2021–0851; EPA–HQ–OAR–2021–0663; FRL–9425–01–R7]

Air Plan Disapproval; Missouri Interstate Transport of Air Pollution for the 2015 8-Hour Ozone National Ambient Air Quality Standards

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: Pursuant to the Federal Clean Air Act (CAA or the Act), the Environmental Protection Agency (EPA) is proposing to disapprove a State Implementation Plan (SIP) submittal from Missouri regarding interstate transport for the 2015 8-hour ozone national ambient air quality standards (NAAQS). The ''good neighbor'' or ''interstate transport'' provision requires that each state's SIP contain adequate provisions to prohibit emissions from within the state from significantly contributing to nonattainment or interfering with maintenance of the NAAQS in other states. This requirement is part of the broader set of ''infrastructure'' requirements, which are designed to ensure that the structural components of each state's air quality management program are adequate to meet the state's responsibilities under the CAA. This disapproval, if finalized, will establish a 2-year deadline for the EPA to promulgate a Federal Implementation Plan (FIP) to address the relevant interstate transport requirements, unless the EPA approves a subsequent SIP submittal that meets these requirements. Disapproval does not start a mandatory sanctions clock.

DATES: Written comments must be received on or before April 25, 2022.

ADDRESSES: You may send comments, identified as Docket No. EPA–R07–OAR–2021–0851, by any of the following methods: Federal eRulemaking Portal at *https://*

www.regulations.gov following the online nstructions for submitting comments or via email to *stone.william@epa.gov.* Include Docket ID No. EPA–R07–OAR–2021–0851 in the subject line of the message.

Instructions: All submissions received must include the Docket ID No. for this rulemaking. Comments received may be posted without change to *https://www.regulations.gov/,* including any personal information provided. For detailed instructions on sending comments and additional information on the rulemaking process, see the ''Public Participation'' heading of the **SUPPLEMENTARY INFORMATION** section of this document. Out of an abundance of caution for members of the public and our staff, the EPA Docket Center and Reading Room are open to the public by appointment only to reduce the risk of transmitting COVID–19. Our Docket Center staff also continues to provide remote customer service via email, phone, and webform. For further information on EPA Docket Center services and the current status, please visit us online at *https://www.epa.gov/dockets.*

FOR FURTHER INFORMATION CONTACT: William Stone, Environmental Protection Agency, Region 7 Office, Air Quality Planning Branch, 11201 Renner Boulevard, Lenexa, Kansas 66219; telephone number: (913) 551–7714; email address: *stone.william@epa.gov.*

SUPPLEMENTARY INFORMATION: *Public participation:* Submit your comments, identified by Docket ID No. EPA–R07–OAR–2021–0851, at *https://www.regulations.gov* (our preferred method), or the other methods identified in the **ADDRESSES** section. Once submitted, comments cannot be edited or removed from the docket. The EPA may publish any comment received to its public docket. Do not submit to EPA's docket at *https://www.regulations.gov* any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. The EPA will generally not consider comments or comment contents located outside of the primary submission (*i.e.,* on the web, cloud, or other file sharing system).

There are two dockets supporting this action, EPA–R07–OAR–2021–0851 and EPA–HQ–OAR–2021–0663. Docket No. EPA–R07–OAR–2021–0851 contains information specific to Missouri, including the notice of proposed rulemaking. Docket No. EPA–HQ–OAR–2021–0663 contains additional modeling files, emissions inventory files, technical support documents, and other relevant supporting documentation regarding interstate transport of emissions for the 2015 8-hour ozone NAAQS which are being used to support this action. All comments regarding information in either of these dockets are to be made in Docket No. EPA–R07–OAR–2021–0851. For additional submission methods, please contact William Stone, (913) 551–7714, *stone.william@epa.gov.* For the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit *https://www.epa.gov/dockets/commenting-epa-dockets.* Due to public health concerns related to COVID–19, the EPA Docket Center and Reading Room are open to the public by appointment only. Our Docket Center staff also continues to provide remote customer service via email, phone, and webform. For further information and updates on EPA Docket Center services, please visit us online at *https://www.epa.gov/dockets.*

The EPA continues to carefully and continuously monitor information from the Centers for Disease Control and Prevention (CDC), local area health departments, and our Federal partners so that we can respond rapidly as conditions change regarding COVID–19.

The index to the docket for this action, Docket No. EPA–R07–OAR–2021–0851, is available electronically at *www.regulations.gov.* While all documents in the docket are listed in the index, some information may not be publicly available due to docket file size restrictions or content (*e.g.,* CBI).

Throughout this document, ''we,'' ''us,'' and ''our'' means the EPA.

I. Background

A. Description of Statutory Background

On October 1, 2015, the EPA promulgated a revision to the ozone NAAQS (2015 8-hour ozone NAAQS), lowering the level of both the primary and secondary standards to 0.070 parts per million (ppm).[1] Section 110(a)(1) of the CAA requires states to submit, within 3 years after promulgation of a new or revised standard, SIP submissions meeting the applicable requirements of section 110(a)(2).[2] One of these applicable requirements is found in CAA section 110(a)(2)(D)(i)(I), otherwise known as the ''interstate transport'' or ''good neighbor'' provision, which generally requires SIPs to contain adequate provisions to prohibit in-state emissions activities from having certain adverse air quality effects on other states due to interstate transport of pollution. There are two so-called ''prongs'' within CAA section 110(a)(2)(D)(i)(I). A SIP for a new or revised NAAQS must contain adequate provisions prohibiting any source or other type of emissions activity within the state from emitting air pollutants in amounts that will significantly contribute to nonattainment of the NAAQS in another state (prong 1) or interfere with maintenance of the NAAQS in another state (prong 2). The EPA and states must give independent significance to prong 1 and prong 2 when evaluating downwind air quality problems under CAA section 110(a)(2)(D)(i)(I).[3]

B. Description of the EPA's Four Step Interstate Transport Regulatory Process

The EPA is using the 4-step interstate transport framework (or 4-step framework) to evaluate the state's SIP submittals addressing the interstate transport provision for the 2015 8-hour ozone NAAQS. The EPA has addressed the interstate transport requirements of CAA section 110(a)(2)(D)(i)(I) with respect to prior ozone NAAQS in several regional regulatory actions, including the Cross-State Air Pollution Rule (CSAPR), which addressed interstate transport with respect to the 1997 ozone NAAQS as well as the 1997 and 2006 fine particulate matter standards,[4] and the Cross-State Air Pollution Rule Update (CSAPR Update) [5] and the Revised CSAPR Update, both of which addressed the 2008 ozone NAAQS.[6]

[1] National Ambient Air Quality Standards for Ozone, Final Rule, 80 FR 65292 (October 26, 2015). Although the level of the standard is specified in the units of ppm, ozone concentrations are also described in parts per billion (ppb). For example, 0.070 ppm is equivalent to 70 ppb.

[2] SIP revisions that are intended to meet the applicable requirements of section 110(a)(1) and (2) of the CAA are often referred to as infrastructure SIPs and the applicable elements under section 110(a)(2) are referred to as infrastructure requirements.

[3] *See North Carolina* v. *EPA,* 531 F.3d 896, 909–11 (D.C. Cir. 2008).

[4] *See* Federal Implementation Plans: Interstate Transport of Fine Particulate Matter and Ozone and Correction of SIP Approvals, 76 FR 48208 (Aug. 8, 2011).

[5] Cross-State Air Pollution Rule Update for the 2008 Ozone NAAQS, 81 FR 74504 (Oct. 26, 2016).

[6] In 2019, the D.C. Circuit Court of Appeals remanded the CSAPR Update to the extent it failed to require upwind states to eliminate their significant contribution by the next applicable attainment date by which downwind states must come into compliance with the NAAQS, as

Through the development and implementation of the CSAPR rulemakings and prior regional rulemakings pursuant to the interstate transport provision,[7] the EPA, working in partnership with states, developed the following 4-step interstate transport framework to evaluate a state's obligations to eliminate interstate transport emissions under the interstate transport provision for the ozone NAAQS: (1) Identify monitoring sites that are projected to have problems attaining and/or maintaining the NAAQS (*i.e.,* nonattainment and/or maintenance receptors); (2) identify states that impact those air quality problems in other (*i.e.,* downwind) states sufficiently such that the states are considered ''linked'' and therefore warrant further review and analysis; (3) identify the emissions reductions necessary (if any), applying a multifactor analysis, to eliminate each linked upwind state's significant contribution to nonattainment or interference with maintenance of the NAAQS at the locations identified in Step 1; and (4) adopt permanent and enforceable measures needed to achieve those emissions reductions.

C. Background on the EPA's Ozone Transport Modeling Information

The EPA has released several documents containing information relevant to evaluating interstate transport with respect to the 2015 8-hour ozone NAAQS. First, on January 6, 2017, the EPA published a notice of data availability (NODA) in which we requested comment on preliminary interstate ozone transport data including projected ozone design values (DVs) and interstate contributions for 2023 using a 2011 base year platform.[8] In the NODA, the EPA used the year 2023 as the analytic year for this preliminary modeling because that year aligns with the expected attainment year for Moderate ozone nonattainment areas for the 2015 8-hour ozone NAAQS.[9] On October 27, 2017, we released a memorandum (October 2017 memorandum) containing updated modeling data for 2023, which incorporated changes made in response to comments on the NODA and noted that the modeling may be useful for states developing SIPs to address interstate transport obligations for the 2008 ozone NAAQS.[10] On March 27, 2018, we issued a memorandum (March 2018 memorandum) noting that the same 2023 modeling data released in the 2017 memorandum could also be useful for identifying potential downwind air quality problems with respect to the 2015 8-hour ozone NAAQS at Step 1 of the 4-step interstate transport framework.[11] The March 2018 memorandum also included the then newly available contribution modeling data for 2023 to assist states in evaluating their impact on potential downwind air quality problems for the 2015 8-hour ozone NAAQS under Step 2 of the 4-step interstate transport framework.[12] The EPA subsequently issued two more memoranda in August and October 2018, providing additional information to states developing interstate transport SIP submissions for the 2015 8-hour ozone NAAQS concerning, respectively, potential contribution thresholds that may be appropriate to apply in Step 2 of the 4-step interstate transport framework, and considerations for identifying downwind areas that may have problems maintaining the standard at Step 1 of the 4-step interstate transport framework.[13]

Since the release of the modeling data shared in the March 2018 memorandum, the EPA performed updated modeling using a 2016-based emissions modeling platform (*i.e.,* 2016v1). This emissions platform was developed under the EPA/Multi-Jurisdictional Organization (MJO)/state collaborative project.[14] This collaborative project was a multi-year joint effort by the EPA, MJOs, and states to develop a new, more recent emissions platform for use by the EPA and states in regulatory modeling as an improvement over the dated 2011-based platform that the EPA had used to project ozone design values and contribution data provided in the 2017 and 2018 memoranda. The EPA used the 2016v1 emissions to project ozone DVs and contributions for 2023. On October 30, 2020, in the Notice of Proposed Rulemaking for the Revised CSAPR Update, the EPA released and accepted public comment on 2023 modeling that used the 2016v1 emissions platform.[15] *See* 85 FR 68964, 68981. Although the Revised CSAPR Update addressed transport for the 2008 ozone NAAQS, the projected design values and contributions from the 2016v1 platform are also useful for identifying downwind ozone problems and linkages with respect to the 2015 ozone NAAQS.[16]

Following the Revised CSAPR Update final rule, the EPA made further updates to the 2016 emissions platform to include mobile emissions from the EPA's Motor Vehicle Emission Simulator MOVES3 model[17] and updated emissions projections for electric generating units (EGUs) that reflect the emissions reductions from the Revised CSAPR Update, recent information on plant closures, and other sector trends. The construct of the updated emissions platform, 2016v2, is described in the emissions modeling technical support document (TSD) for this proposed rule.[18] The EPA

established under CAA section 181(a). *Wisconsin* v. *EPA,* 938 F.3d 303, 313 (D.C. Cir. 2019). The Revised CSAPR Update for the 2008 Ozone NAAQS, 86 FR 23054 (April 30, 2021), responded to the remand of the CSAPR Update in *Wisconsin* and the vacatur of a separate rule, the ''CSAPR Close-Out,'' 83 FR 65878 (December 21, 2018), in *New York* v. *EPA,* 781 F. App'x. 4 (D.C. Cir. 2019).

[7] In addition to the CSAPR rulemakings, other regional rulemakings addressing ozone transport include the ''NO_X SIP Call,'' 63 FR 57356 (October 27, 1998), and the ''Clean Air Interstate Rule'' (CAIR), 70 FR 25162 (May 12, 2005).

[8] *See* Notice of Availability of the Environmental Protection Agency's Preliminary Interstate Ozone Transport Modeling Data for the 2015 8-Hour Ozone National Ambient Air Quality Standard (NAAQS), 82 FR 1733 (January 6, 2017).

[9] 82 FR at 1735.

[10] *See* Information on the Interstate Transport State Implementation Plan Submissions for the 2008 Ozone National Ambient Air Quality Standards under Clean Air Act Section 110(a)(2)(D)(i)(I), October 27, 2017, available in the docket ID No. EPA–HQ–OAR–2021–0663.

[11] *See* Information on the Interstate Transport State Implementation Plan Submissions for the 2015 Ozone National Ambient Air Quality Standards under Clean Air Act Section 110(a)(2)(D)(i)(I), March 27, 2018 (''March 2018 memorandum''), available in docket ID No. EPA–HQ–OAR–2021–0663.

[12] The March 2018 memorandum, however, provided, ''While the information in this memorandum and the associated air quality analysis data could be used to inform the development of these SIPs, the information is not a final determination regarding states' obligations under the good neighbor provision. Any such determination would be made through notice-and-comment rulemaking.''

[13] *See* Analysis of Contribution Thresholds for Use in Clean Air Act Section 110(a)(2)(D)(i)(I) Interstate Transport State Implementation Plan Submissions for the 2015 Ozone National Ambient Air Quality Standards, August 31, 2018) (''August 2018 memorandum''), and Considerations for Identifying Maintenance Receptors for Use in Clean Air Act Section 110(a)(2)(D)(i)(I) Interstate Transport State Implementation Plan Submissions for the 2015 Ozone National Ambient Air Quality Standards, October 19, 2018, available in docket ID No. EPA–HQ–OAR–2021–0663.

[14] The results of this modeling, as well as the underlying modeling files, are included in docket ID No. EPA–HQ–OAR–2021–0663.

[15] *See* 85 FR 68964, 68981.

[16] See the Air Quality Modeling Technical Support Document for the Final Revised Cross-State Air Pollution Rule Update, included in the Headquarters docket ID No. EPA–HQ–OAR–2021–0663.

[17] Additional details and documentation related to the MOVES3 model can be found at *https://www.epa.gov/moves/latest-version-motor-vehicle-emission-simulator-moves.*

[18] See Technical Support Document (TSD) Preparation of Emissions Inventories for the 2016v2 North American Emissions Modeling Platform

Continued

performed air quality modeling of the 2016v2 emissions using the most recent public release version of the Comprehensive Air Quality Model with Extensions (CAMx) photochemical modeling, version 7.10. with the 2016 base year and 2023 future year emissions developed as part of the 2016v2 emissions platform.[19] The EPA now proposes to rely on modeling based on the updated and newly available 2016v2 air quality modeling in evaluating these submissions with respect to Steps 1 and 2 of the 4-step interstate transport framework. By using the updated modeling results, the EPA is using the most current and technically appropriate information for this proposed rulemaking. Section III of this document and the Air Quality Modeling TSD included in the docket for this proposal contain additional detail on the modeling performed using the 2016v2 emissions. In this document, the EPA is accepting public comment on this updated 2023 modeling, which uses a 2016 emissions platform. Details on the air quality modeling and the methods for projecting design values and determining contributions in 2023 are described in the Air Quality Modeling TSD for 2015 Ozone NAAQS Transport SIP Proposed Actions. Comments on the EPA's air quality modeling should be submitted in the Regional docket for this action, docket ID No. EPA–R07–OAR–2021–0851. Comments are not being accepted in docket EPA–HQ–OAR–2021–0663.

States may have chosen to rely on the results of the EPA modeling and/or alternative modeling performed by states or Multi-Jurisdictional Organizations (MJOs) to evaluate downwind air quality problems and contributions as part of their submissions. In section III we evaluate how Missouri used air quality modeling information in their submission.

D. The EPA's Approach to Evaluating Interstate Transport SIPs for the 2015 8-Hour Ozone NAAQS

The EPA proposes to apply a consistent set of policy judgments across all states for purposes of evaluating interstate transport obligations and the approvability of interstate transport SIP submittals for the 2015 8-hour ozone NAAQS. These policy judgments reflect consistency with relevant case law and past agency practice as reflected in the CSAPR and related rulemakings. Nationwide consistency in approach is particularly important in the context of interstate ozone transport, which is a regional-scale pollution problem involving many smaller contributors. Effective policy solutions to the problem of interstate ozone transport going back to the NO_X SIP Call have necessitated the application of a uniform framework of policy judgments in order to ensure an ''efficient and equitable'' approach. *See EME Homer City Generation, LP* v. *EPA,* 572 U.S. 489, 519 (2014).

In the March, August, and October 2018 memoranda, the EPA recognized that states may be able to establish alternative approaches to addressing their interstate transport obligations for the 2015 8-hour ozone NAAQS that vary from a nationally uniform framework. The EPA emphasized in these memoranda, however, that such alternative approaches must be technically justified and appropriate in light of the facts and circumstances of each particular state's submittal. In general, the EPA continues to believe that deviation from a nationally consistent approach to ozone transport must be substantially justified and have a well-documented technical basis that is consistent with relevant case law. Where states submitted SIPs that rely on any such potential ''flexibilities'' as may have been identified or suggested in the past, the EPA will evaluate whether the state adequately justified the technical and legal basis for doing so.

The EPA notes that certain concepts included in an attachment to the March 2018 memorandum require unique consideration, and these ideas do not constitute agency guidance with respect to transport obligations for the 2015 ozone NAAQS. Attachment A to the March 2018 memorandum identified a ''Preliminary List of Potential Flexibilities'' that could potentially inform SIP development.[20] However, the EPA made clear in that Attachment that the list of ideas were not suggestions endorsed by the Agency but rather ''comments provided in various forums'' on which the EPA sought ''feedback from interested stakeholders.'' [21] Further, Attachment A stated, ''EPA is not at this time making any determination that the ideas discussed below are consistent with the requirements of the CAA, nor are we specifically recommending that states use these approaches.'' [22] Attachment A to the March 2018 memorandum, therefore, does not constitute agency guidance, but was intended to generate further discussion around potential approaches to addressing ozone transport among interested stakeholders. To the extent states sought to develop or rely on these ideas in support of their SIP submittals, the EPA will thoroughly review the technical and legal justifications for doing so.

The remainder of this section describes the EPA's proposed framework with respect to analytic year, definition of nonattainment and maintenance receptors, selection of contribution threshold, and multifactor control strategy assessment.

1. Selection of Analytic Year

In general, the states and the EPA must implement the interstate transport provision in a manner ''consistent with the provisions of [title I of the CAA.]'' CAA section 110(a)(2)(D)(i). This requires, among other things, that these obligations are addressed consistently with the timeframes for downwind areas to meet their CAA obligations. With respect to ozone NAAQS, under CAA section 181(a), this means obligations must be addressed ''as expeditiously as practicable'' and no later than the schedule of attainment dates provided in CAA section 181(a)(1).[23] Several D.C. Circuit court decisions address the issue of the relevant analytic year for the purposes of evaluating ozone transport air-quality problems. On September 13, 2019, the D.C. Circuit issued a decision in *Wisconsin* v. *EPA,* remanding the CSAPR Update to the extent that it failed to require upwind states to eliminate their significant contribution by the next applicable attainment date by which downwind states must come into compliance with the NAAQS, as established under CAA section 181(a). 938 F.3d at 313.

On May 19, 2020, the D.C. Circuit issued a decision in *Maryland* v. *EPA* that cited the *Wisconsin* decision in holding that the EPA must assess the impact of interstate transport on air quality at the next downwind attainment date, including Marginal area attainment dates, in evaluating the basis for the EPA's denial of a petition under CAA section 126(b). *Maryland* v. *EPA,* 958 F.3d 1185, 1203–04 (D.C. Cir. 2020). The court noted that ''section 126(b) incorporates the Good Neighbor Provision,'' and, therefore, ''EPA must find a violation [of section 126] if an upwind source will significantly contribute to downwind nonattainment

included in the Headquarters docket ID No. EPA–HQ–OAR–2021–0663.

[19] Ramboll Environment and Health, January 2021, *www.camx.com.*

[20] March 2018 memorandum, Attachment A.

[21] *Id.* at A–1.

[22] *Id.*

[23] For attainment dates for the 2015 8-hour ozone NAAQS, refer to CAA section 181(a), 40 CFR 51.1303, and Additional Air Quality Designations for the 2015 Ozone National Ambient Air Quality Standards, 83 FR 25776 (June 4, 2018, effective Aug. 3, 2018).

at the *next downwind attainment deadline.* Therefore, the Agency must evaluate downwind air quality at that deadline, not at some later date.'' *Id.* at 1204 (emphasis added). The EPA interprets the court's holding in *Maryland* as requiring the states and the Agency, under the good neighbor provision, to assess downwind air quality as expeditiously as practicable and no later than the next applicable attainment date,[24] which is now the Moderate area attainment date under CAA section 181 for ozone nonattainment. The Moderate area attainment date for the 2015 8-hour ozone NAAQS is August 3, 2024.[25] The EPA believes that 2023 is now the appropriate year for analysis of interstate transport obligations for the 2015 8-hour ozone NAAQS, because the 2023 ozone season is the last relevant ozone season during which achieved emissions reductions in linked upwind states could assist downwind states with meeting the August 3, 2024, Moderate area attainment date for the 2015 8-hour ozone NAAQS.

The EPA recognizes that the attainment date for nonattainment areas classified as Marginal for the 2015 8-hour ozone NAAQS was August 3, 2021. Under the *Maryland* holding, any necessary emissions reductions to satisfy interstate transport obligations should have been implemented by no later than this date. At the time of the statutory deadline to submit interstate transport SIPs (October 1, 2018), many states relied upon the EPA modeling of the year 2023, and no state provided an alternative analysis using a 2021 analytic year (or the prior 2020 ozone season). However, the EPA must act on SIP submittals using the information available at the time it takes such action. In this circumstance, the EPA does not believe it would be appropriate to evaluate states' obligations under CAA section 110(a)(2)(D)(i)(I) as of an attainment date that is wholly in the past, because the Agency interprets the interstate transport provision as forward looking. *See* 86 FR 23074; *see also Wisconsin,* 938 F.3d at 322. Consequently, in this proposal the EPA will use the analytical year of 2023 to evaluate each state's CAA section 110(a)(2)(D)(i)(I) SIP submission with respect to the 2015 8-hour ozone NAAQS.

2. Step 1 of the 4-Step Interstate Transport Framework

In Step 1, the EPA identifies monitoring sites that are projected to have problems attaining and/or maintaining the NAAQS in the 2023 analytic year. Where the EPA's analysis shows that a site does not fall under the definition of a nonattainment or maintenance receptor, that site is excluded from further analysis under the EPA's 4-step interstate transport framework. For sites that are identified as a nonattainment or maintenance receptor in 2023, we proceed to the next step of our 4-step interstate transport framework by identifying the upwind state's contribution to those receptors.

The EPA's approach to identifying ozone nonattainment and maintenance receptors in this action is consistent with the approach used in previous transport rulemakings. The EPA's approach gives independent consideration to both the ''contribute significantly to nonattainment'' and the ''interfere with maintenance'' prongs of CAA section 110(a)(2)(D)(i)(I), consistent with the D.C. Circuit's direction in *North Carolina* v. *EPA.*[26]

For the purpose of this proposal, the EPA identifies nonattainment receptors as those monitoring sites that are projected to have average design values that exceed the NAAQS and that are also measuring nonattainment based on the most recent monitored design values. This approach is consistent with prior transport rulemakings, such as the CSAPR Update, where the EPA defined nonattainment receptors as those areas that both currently measure nonattainment and that the EPA projects will be in nonattainment in the future analytic year (*i.e.,* 2023).[27]

In addition, in this proposal, the EPA identifies a receptor to be a ''maintenance'' receptor for purposes of defining interference with maintenance, consistent with the method used in the CSAPR and upheld by the D.C. Circuit in *EME Homer City Generation, L.P.* v. *EPA,* 795 F.3d 118, 136 (D.C. Cir. 2015).[28] Specifically, the EPA identified maintenance receptors as those receptors that would have difficulty maintaining the relevant NAAQS in a scenario that takes into account historical variability in air quality at that receptor. The variability in air quality was determined by evaluating the ''maximum'' future design value at each receptor based on a projection of the maximum measured design value over the relevant period. The EPA interprets the projected maximum future design value to be a potential future air quality outcome consistent with the meteorology that yielded maximum measured concentrations in the ambient data set analyzed for that receptor (*i.e.,* ozone conducive meteorology). The EPA also recognizes that previously experienced meteorological conditions (*e.g.,* dominant wind direction, temperatures, air mass patterns) promoting ozone formation that led to maximum concentrations in the measured data may reoccur in the future. The maximum design value gives a reasonable projection of future air quality at the receptor under a scenario in which such conditions do, in fact, reoccur. The projected maximum design value is used to identify upwind emissions that, under those circumstances, could interfere with the downwind area's ability to maintain the NAAQS.

Recognizing that nonattainment receptors are also, by definition, maintenance receptors, the EPA often uses the term ''maintenance-only'' to refer to those receptors that are not nonattainment receptors. Consistent with the concepts for maintenance receptors, as described above, the EPA identifies ''maintenance-only'' receptors as those monitoring sites that have projected average design values above the level of the applicable NAAQS, but that are not currently measuring nonattainment based on the most recent official design values. In addition, those monitoring sites with projected average design values below the NAAQS, but with projected maximum design values above the NAAQS are also identified as ''maintenance only'' receptors, even if they are currently measuring nonattainment based on the most recent official design values. Consistent with the methodology described for nonattainment, those sites that are

[24] We note that the court in *Maryland* did not have occasion to evaluate circumstances in which the EPA may determine that an upwind linkage to a downwind air quality problem exists at steps 1 and 2 of the interstate transport framework by a particular attainment date, but for reasons of impossibility or profound uncertainty the Agency is unable to mandate upwind pollution controls by that date. *See Wisconsin,* 938 F.3d at 320. The D.C. Circuit noted in *Wisconsin* that upon a sufficient showing, these circumstances may warrant flexibility in effectuating the purpose of the interstate transport provision.

[25] *See* CAA section 181(a); 40 CFR 51.1303; Additional Air Quality Designations for the 2015 Ozone National Ambient Air Quality Standards, 83 FR 25776 (June 4, 2018, effective Aug. 3, 2018).

[26] *See North Carolina* v. *EPA,* 531 F.3d 896, 910–11 (D.C. Cir. 2008) (holding that the EPA must give ''independent significance'' to each prong of CAA section 110(a)(2)(D)(i)(I)).

[27] *See* 81 FR 74504 (October 26, 2016). This same concept, relying on both current monitoring data and modeling to define nonattainment receptor, was also applied in CAIR. *See* 70 FR at 25241, 25249 (January 14, 2005); *see also North Carolina,* 531 F.3d at 913–14 (affirming as reasonable EPA's approach to defining nonattainment in CAIR).

[28] *See* 76 FR 48208 (August 8, 2011). CSAPR Update and Revised CSAPR Update also used this approach. See 81 FR 74504 (October 26, 2016) and 86 FR 23054 (April 30, 2021).

currently measuring ozone concentrations below the level of the applicable NAAQS, but that are projected to be nonattainment based on the average or maximum design values, are identified as maintenance-only receptors.

3. Step 2 of the 4-Step Interstate Transport Framework

In Step 2, the EPA quantifies the contribution of each upwind state to each receptor in the 2023 analytic year. The contribution metric used in Step 2 is defined as the average impact from each state to each receptor on the days with the highest ozone concentrations at the receptor based on the 2023 modeling. If a state's contribution value does not equal or exceed the threshold of 1 percent of the NAAQS (*i.e.,* 0.70 ppb for the 2015 8-hour ozone NAAQS), the upwind state is not ''linked'' to a downwind air quality problem, and the EPA, therefore, concludes that the state does not significantly contribute to nonattainment or interfere with maintenance of the NAAQS in the downwind states. However, if a state's contribution equals or exceeds the 1 percent threshold, the state's emissions are further evaluated in Step 3, considering both air quality and cost as part of a multi-factor analysis, to determine what, if any, emissions might be deemed ''significant'' and, thus, must be eliminated under CAA section 110(a)(2)(D)(i)(I).

The EPA is proposing to rely in the first instance on the 1 percent threshold for the purpose of evaluating a state's contribution to nonattainment or maintenance of the 2015 8-hour ozone NAAQS (*i.e.,* 0.70 ppb) at downwind receptors. This is consistent with the Step 2 approach that the EPA applied in CSAPR for the 1997 ozone NAAQS, which has subsequently been applied in the CSAPR Update when evaluating interstate transport obligations for the 2008 ozone NAAQS. The EPA continues to find 1 percent to be an appropriate threshold. For ozone, as the EPA found in the Clean Air Interstate Rule (CAIR), CSAPR, and CSAPR Update, portion of the nonattainment problems from anthropogenic sources in the U.S. results from the combined impact of relatively small contributions from many upwind states, along with contributions from in-state sources and, in some cases, substantially larger contributions from a subset of particular upwind states. The EPA's analysis shows that much of the ozone transport problem being analyzed in this proposed rule is still the result of the collective impacts of contributions from many upwind states. Therefore, application of a consistent contribution threshold is necessary to identify those upwind states that should have responsibility for addressing their contribution to the downwind nonattainment and maintenance problems to which they collectively contribute. Continuing to use 1 percent of the NAAQS as the screening metric to evaluate collective contribution from many upwind states also allows the EPA (and states) to apply a consistent framework to evaluate interstate emissions transport under the interstate transport provision from one NAAQS to the next. *See* 81 FR at 74518. *See also* 86 FR at 23085 (reviewing and explaining rationale from CSAPR; 76 FR at 48237–38. (for selection of 1 percent threshold)).

The EPA's August 2018 memorandum recognized that in certain circumstances, a state may be able to establish that an alternative contribution threshold of 1 ppb is justifiable. Where a state relies on this alternative threshold, and where that state determined that it was not linked at Step 2 using the alternative threshold, the EPA will evaluate whether the state provided a technically sound assessment of the appropriateness of using this alternative threshold based on the facts and circumstances underlying its application in the particular SIP submission.

4. Step 3 of the 4-Step Interstate Transport Framework

Consistent with the EPA's longstanding approach to eliminating significant contribution or interference with maintenance, at Step 3, states linked at steps 1 and 2 are generally expected to prepare a multifactor assessment of potential emissions controls. The EPA's analysis at Step 3 in prior Federal actions addressing interstate transport requirements has primarily focused on an evaluation of cost-effectiveness of potential emissions controls (on a marginal cost-per-ton basis), the total emissions reductions that may be achieved by requiring such controls (if applied across all linked upwind states), and an evaluation of the air quality impacts such emissions reductions would have on the downwind receptors to which a state is linked; other factors may potentially be relevant if adequately supported. In general, where the EPA's or alternative air quality and contribution modeling establishes that a state is linked at steps 1 and 2, it will be insufficient at Step 3 for a state merely to point to its existing rules requiring control measures as a basis for approval. In general, the emissions-reducing effects of all existing emissions control requirements are already reflected in the air quality results of the modeling for steps 1 and 2. If the state is shown to still be linked to one or more downwind receptor(s), states must provide a well-documented evaluation determining whether their emissions constitute significant contribution or interference with maintenance by evaluating additional available control opportunities by preparing a multifactor assessment. While the EPA has not prescribed a particular method for this assessment, the EPA expects states at a minimum to present a sufficient technical evaluation. This would typically include information on emissions sources, applicable control technologies, emissions reductions, costs, cost effectiveness, and downwind air quality impacts of the estimated reductions, before concluding that no additional emissions controls should be required.[29]

5. Step 4 of the 4-Step Interstate Transport Framework

At Step 4, states (or the EPA) develop permanent and federally enforceable control strategies to achieve the emissions reductions determined to be necessary at Step 3 to eliminate significant contribution to nonattainment or interference with maintenance of the NAAQS. For a state linked at steps 1 and 2 to rely on an emissions control measure at Step 3 to address its interstate transport obligations, that measure must be included in the state's SIP so that it is permanent and federally enforceable. *See* CAA section 110(a)(2)(D) (''Each such [SIP] shall . . . contain adequate provisions . . . .''). *See also* CAA 110(a)(2)(A); *Committee for a Better Arvin* v. *U.S. E.P.A.,* 786 F.3d 1169, 1175–76 (9th Cir. 2015) (holding that measures relied on by state to meet CAA requirements must be included in the SIP).

II. SIP Submission Addressing Interstate Transport of Air Pollution for the 2015 8-Hour Ozone NAAQS

On June 10, 2019, the Missouri Department of Natural Resources' Air Pollution Control Program (MoDNR)

[29] As examples of general approaches for how such an analysis could be conducted for their sources, states could look to the CSAPR Update, 81 FR 74504, 74539–51; CSAPR, 76 FR 48208, 48246–63; CAIR, 70 FR 25162, 25195–229; or the NO_X SIP Call, 63 FR 57356, 57399–405. *See also* Revised CSAPR Update, 86 FR 23054, 23086–23116. Consistently across these rulemakings, the EPA has developed emissions inventories, analyzed different levels of control stringency at different cost thresholds, and assessed resulting downwind air quality improvements.

made a SIP submission to address interstate transport of air pollution for the 2015 8-hour ozone NAAQS. MoDNR's good neighbor SIP submission for the 2015 ozone NAAQS relied on the EPA's four-step approach and corresponding memoranda for determining obligations for upwind states to limit transported air pollution to downwind states. The State concluded that emissions from sources or emissions activity in Missouri will not contribute significantly to nonattainment or interfere with maintenance of the 2015 ozone NAAQS in any downwind states.

In its analysis, the state relied on the EPA's modeling released with the March 2018 memorandum to identify nonattainment and maintenance receptors in 2023 (Step 1). The State also relied on the EPA's modeling from the March 2018 memorandum to identify which monitors were then linked to emissions from Missouri. In its submission, the MoDNR identified all of the nonattainment and maintenance receptors to which Missouri was projected to contribute more than 0.70 ppb to the 2023 DV. Table 1 provides information on the six nonattainment and maintenance receptors identified by the MoDNR.

TABLE 1—2023 AVERAGE AND MAXIMUM DESIGN VALUES AT DOWNWIND RECEPTORS WITH MISSOURI CONTRIBUTIONS LARGER THAN 0.70 PPB

Site (monitor, county, state)	2023 Average DV (ppb)	2023 Maximum DV (ppb)	Missouri contribution (ppb)	Comments
260050003, Allegan, MI	69.0	71.7	2.61	Maintenance receptor.
261630019, Wayne, MI	69.0	71.0	0.92	Maintenance receptor.
484392003, Brazoria, TX	74.0	74.9	0.88	Nonattainment receptor.
482011039, Harris, TX	71.8	73.5	0.88	Nonattainment receptor.
550790085 Milwaukee, WI	71.2	73.0	0.93	Nonattainment receptor.
551170006, Sheboygan, WI	72.8	75.1	1.37	Nonattainment receptor.

The state analyzed each of the six receptors in Table 1 using information in the EPA's 2018 guidance memoranda described above. For the two receptors in Texas, the state observed that the total upwind state contribution is approximately 13 ppb to both of these Texas receptors and that Texas' in-state contribution to these two receptors is 26 ppb to the Brazoria County receptor and 22.6 ppb to the Harris County receptor. The MoDNR combined the contributions from initial/boundary conditions with the contribution from biogenic emissions to show that the contribution from these two categories is over 52 ppb, at these two receptors. Based on this information, the MoDNR claimed that the ozone problems at these two receptors are not caused by upwind U.S. anthropogenic emissions from other states, but rather that in-state contributions, natural ozone concentrations, and international emissions are the likely significant contributors to the problem at these two sites.

The MoDNR also noted that its contribution to the projected 2023 ozone DV at the two Texas receptors is 0.88 ppb. The MoDNR then referenced statements in the EPA's August 2018 memorandum on the use of alternative thresholds that a 1 ppb threshold would generally capture a substantial amount of transported contribution from upwind states to the downwind monitors. The MoDNR concluded that 1 ppb is, therefore, an appropriate alternative screening threshold for evaluating whether emissions in their state are linked to the ozone problems at these two receptors. Based on this alternative threshold, the State determined that it will not contribute significantly to these nonattainment receptors in 2023. The MoDNR then concluded that its SIP sufficiently addresses the good neighbor obligation for the 2015 ozone NAAQS with respect to these two Texas receptors based only on its Step 2 weight of evidence analysis.

For the Milwaukee, Wisconsin receptor, the MoDNR noted that its projected contribution to this receptor is 0.93 ppb, and thus less than 1 ppb. The State observed that the 1 ppb threshold would capture 79.4 percent of the total contribution from all upwind states and that the contribution captured by the 1 ppb threshold is 83 percent of the amount captured by the 0.70 ppb threshold at this receptor. The state asserted that the 1 ppb threshold would capture a substantial amount of total upwind states' contribution to ozone concentrations at this receptor, which will lead to meaningful emission reductions to ensure attainment of the NAAQS at this monitor in 2023. Therefore, the MoDNR relied on a 1 ppb threshold to conclude that its existing SIP sufficiently addresses the good neighbor obligation for the 2015 ozone NAAQS with respect to this receptor.

For the Wayne, Michigan site, the state observed that the 1 ppb threshold captures 61.8 percent of total upwind state contributions and the contribution captured by the 1 ppb threshold would constitute 92.2 percent of the total contribution that would be captured by the 0.70 ppb threshold. The state asserted that the 1 ppb threshold will capture a substantial amount of upwind states' contribution to the ozone concentrations at this site, which will lead to meaningful emission reductions that will help ensure attainment of the NAAQS at this receptor in 2023. The MoDNR noted that its projected contribution to the Wayne, Michigan receptor is 0.92 ppb, and thus less than 1 ppb. Therefore, the MoDNR concluded that its existing SIP sufficiently addresses the good neighbor obligation for the 2015 ozone NAAQS with respect to this receptor based only on this Step 2 weight of evidence analysis.

For the Sheboygan, Wisconsin site, the State observed that the 1 ppb threshold would capture 79.4 percent of the total upwind contributions and that a 2 ppb threshold would capture 68.2 percent of the total upwind state contributions. The State also observed that an alternative 2 ppb threshold would capture 85.9 percent of the upwind state contributions captured under a 1 ppb threshold. Using these data, the MoDNR asserted that a 2 ppb threshold is appropriate because it would capture nearly 70 percent of the total upwind state contributions and thus would result in meaningful emission reductions that will help to ensure attainment of the NAAQS at the site by 2023. The state also asserted that the primary contributors to the projected ozone concentrations at the monitor in Sheboygan include emissions from Illinois, Indiana, and Wisconsin. The MoDNR cited the EPA modeling projecting that emissions from these states would contribute a

combined 31.93 ppb in 2023 to the Sheboygan receptor.

For the Sheboygan receptor, the MoDNR also pointed to the Lake Michigan Air Director's Consortium's (LADCO's) interstate transport modeling results for the 2015 ozone NAAQS. The State noted that LADCO's analysis also indicates that the ozone levels at the Wisconsin shoreline of Lake Michigan are heavily affected by the emissions from Illinois, Indiana, and Wisconsin.[30]

The MoDNR further pointed out that the other monitoring site in Sheboygan County (551170009), which is a few miles further inland than the Sheboygan nonattainment receptor, has no projected problems with attaining and maintaining compliance with the 2015 ozone NAAQS. The MoDNR concluded that the nonattainment receptor in Sheboygan is heavily influenced by local transport emissions and lake breeze effects over Lake Michigan. The State asserted that use of a 2 ppb threshold would capture a substantial amount of upwind states' contribution to the ozone concentrations at this site, which will lead to meaningful emission reductions that will help ensure attainment of the NAAQS at this monitor in 2023. The MoDNR noted that its projected contribution to the Sheboygan, Wisconsin receptor is 1.37 ppb, which is less than 2 ppb. Therefore, the MoDNR concluded that its existing SIP sufficiently addresses the good neighbor obligation for the 2015 ozone NAAQS with respect to the Sheboygan receptor based only on this Step 2 weight of evidence analysis.

For the Allegan, Michigan receptor, the MoDNR used an analysis based on information in the EPA's October 2018 memorandum on alternative approaches for identifying maintenance receptors to claim that the Allegan monitoring site will not be a receptor in 2023. Specifically, rather than rely upon the EPA's projected 2023 maximum design value for identifying maintenance receptors, the state used an alternative approach that included projected 2023 ozone concentrations based on a 2-year base period (2010–2011), a 3-year base period (2009–2011) and a 4-year base period (2009–2012) to demonstrate that the Allegan monitoring site would attain the standard by 2023. To support the use of these alternative base periods, the State provided an analysis for the three consideration outlined in the August 2018 memorandum: (i) Meteorological conditions in the area of the monitoring site were conducive to ozone formation during the alternative base period design value used for projections; (ii) ozone concentrations have been trending downward at the site since 2011 (and ozone precursor emissions of NO_X and VOCs have also decreased); and (iii) emissions are expected to continue to decline in the upwind and downwind states out to the attainment date of the site. The MoDNR noted that ozone concentrations during the summer of 2009 were well below normal for the state of Michigan despite having a large number of days during the ozone season where they claim that meteorology was conducive to ozone formation. The MoDNR also noted that the summer of 2012 was among the most ozone conducive summers across the entire Midwestern portion of the country. MoDNR suggested that the variation in the degree of ozone conducive meteorology between 2009 and 2012 would counterbalance in the alternative baseline period.

The State provided an analysis showing ozone concentrations trending down since 2012 at the Allegan monitor. The State also provided the total statewide anthropogenic NO_X and VOC emissions (ozone precursors) in Michigan, Missouri, and two neighboring states that are upwind of the Allegan monitor during 2011 and 2017 (*i.e.,* Illinois and Indiana), which showed that emissions in all four of these states went down during this time period.

The MoDNR concluded that the Allegan receptor meets all the criteria listed in the EPA October memorandum relating to alternative methods for identifying maintenance receptors. Based on this analysis, the MoDNR asserted that the Allegan Michigan monitor should not be a maintenance receptor for purposes of the 2015 ozone NAAQS. Therefore, the State found that the Missouri' existing SIP fully addresses the CAA good neighbor obligation with respect to the Allegan, Michigan receptor.

Based on the analysis above, the MoDNR concluded that its current SIP adequately addresses the state's obligation under CAA section 110(a)(2)(D)(i)(I) (the good neighbor provision) with respect to the 2015 ozone NAAQS. The MoDNR stated that it has demonstrated that its SIP submittal ensures that emissions in Missouri will not significantly contribute to nonattainment or interfere with maintenance of the 2015 ozone NAAQS in any downwind state. Based on this conclusion, the MoDNR concluded its analysis at Step 2 of the 4-step interstate transport framework and provided no analysis for steps 3 or 4.

III. EPA Evaluation

The EPA is proposing to find that the June 10, 2019, SIP submission from the MoDNR does not meet the State's obligations with respect to prohibiting emissions that contribute significantly to nonattainment or interfere with maintenance of the 2015 8-hour ozone NAAQS in any other state based on the EPA's evaluation of the SIP submission using the 4-step interstate transport framework, and the EPA is therefore proposing to disapprove Missouri's submission.

A. Missouri

1. Evaluation of Information Provided by the MoDNR Regarding Step 1

At Step 1 of the 4-Step interstate transport framework, the MoDNR relied on the EPA modeling released in the March 2018 memorandum to identify nonattainment and maintenance receptors in 2023. As correctly noted in the MoDNR SIP submittal, the EPA's prior analysis indicated that the State was linked to six nonattainment and/or maintenance receptors in three downwind states in 2023 (identified in Table 1 of this action). In its October 2018 memorandum on alternative maintenance receptors, the EPA suggested that States could provide meteorological data, among other data, to support potential alternative methodologies or flexibilities to identify maintenance receptors. The MoDNR utilized this flexibility to eliminate the Allegan, Michigan maintenance receptor (monitor ID 260050003) based on the use of alternative base year periods. The State considered three alternative base periods as a basis for projecting design values in 2023. These based periods include (1) a 2-year base period using 4th high ozone concentrations in 2010 and 2011, (2) a 3-year base year period from 2009–2011, and (3) a 4-year base year period from 2009–2012. As an initial matter, design values, by definition are based on the average of the 4th highest maximum daily 8-hour ozone concentration in three consecutive years. The ''pseudo'' design values calculated by the State using 2 years of data, when data for the third year (*i.e.,* 2009) were clearly available, and using 4 years of data do not constitute alternative design values. In this regard, the approach by the State using these two alternatives runs counter to the approach identified in the October 2018 memorandum: ''. . . . EPA believes that a state may, in some

[30] Interstate Transport Modeling for the 2015 Ozone National Ambient Air Quality Standard, the technical support document (TSD), *https://www.ladco.org/wp-content/uploads/Documents/Reports/TSDs/O3/LADCO_2015O3iSIP_TSD_13Aug2018.pdf.*

cases, use a *design value* from the base period that is not the maximum design value.''

The State also provided information and analysis of meteorological data to attempt to establish that all years that constitute the 2011 design value (*i.e.,* the average of the 4th high values in 2009, 2010, and 2011) were conducive to ozone formation. The State's analysis noted that the summer of 2009 was well below normal for average temperatures, but highlighted that data from Western Michigan Regional Airport national weather service site showed that a number of days in summer of 2009 were conducive to ozone formation. Overall, the state identified 25 days between May and September of 2009 that it considered conducive to ozone formation based on the criteria that the temperature reached 80 degrees Fahrenheit or greater, no precipitation occurred, and the daily average wind speed was less than 5 miles per hour. In the EPA's review, we find the State did not sufficiently demonstrate that all years within the alternative base period were conducive to ozone formation. As the State noted, the summer of 2009 was abnormally cool in Michigan. While the State also analyzed local meteorological data (temperature, precipitation, wind speed) near the Allegan, Michigan monitor to identify 25 days that it considered conducive to ozone formation based on surface temperatures, wind speed and precipitation, the State did not provide any technical analysis to demonstrate a statistically significant relationship between high ozone concentrations at the Allegan receptor and the temperature, precipitation, and wind speed criteria used in the submittal to define ozone conducive conditions for this receptor. In addition, the State's evaluation did not discuss or consider how other meteorological factors identified in the October 2018 memorandum such as humidity, solar radiation, vertical mixing, and/or other meteorological indicators such as cooling-degree days confirm whether conditions affecting the monitor may have been conducive to ozone formation in 2009. The supplemental information provided in the October 2018 memorandum, which included temperature anomalies by state and region of the U.S. and annual state-wide average June–August temperature rankings, clearly highlight that the summer of 2009 was abnormally cool in Michigan and the Great Lakes Region. Therefore, the EPA finds that not all years within the alternative base period used by the State (*i.e.,* 2009–2011) were conducive to ozone formation, especially given the abnormally cold temperatures seen in the summer of 2009. Accordingly, in view of the guidance included in the October 2020 memorandum, it was not appropriate for the state to have eliminated the Allegan, Michigan receptor as a maintenance receptor at Step 1 of the 4-step interstate transport framework on this basis.

Further, the MoDNR's attempt to eliminate this receptor on the basis of this analysis did not provide any basis to eliminate the other receptors to which the EPA's modeling suggested the state was linked. The EPA's most recent modeling, discussed further in section III.A.3, confirms that the existence of several receptors to which the state is linked. The EPA therefore proposes to proceed to evaluate the submittal at Step 2.

2. Evaluation of Information Provided by the State Regarding Step 2

As an initial matter, the EPA disagrees with the arguments made by MoDNR based on the ostensible ''causation'' of the projected attainment and maintenance problems at the receptors in Brazoria County and Harris County in Texas. While it is correct that impacts from various sources, such as in-state contributions, background ozone concentrations, and international emissions, are often themselves significant contributors to attainment and maintenance problems at receptors for the 2015 ozone NAAQS, this does not address the question of whether there are also interstate transport impacts from emissions sources or activities in Missouri that significantly contribute to nonattainment, or interfere with maintenance, in any other state. This question is not one of causation, but rather of whether there is significant contribution as contemplated in CAA section 110(a)(2)(D)(i)(I). The EPA's 4-step interstate transport framework is intended to evaluate whether there are emissions that the State must address in its SIP to meet this requirement for purposes of the 2015 ozone NAAQS.

The State also utilized a 1 ppb threshold at Step 2 for the receptors in Wayne Michigan, Milwaukee, Wisconsin and both Texas receptors to evaluate whether the state was ''linked'' to a projected downwind nonattainment or maintenance receptor. As discussed in the EPA's August 2018 memorandum, with appropriate additional analysis it may be reasonable for states to use a 1 ppb contribution threshold, instead of the 1 percent of the NAAQS threshold for the purposes of identifying linkages to appropriate downwind receptors. In some cases, MoDNR argued for application of the alternative 1 ppb threshold, by presenting the different numerical percentages of downwind impacts that the respective thresholds would result in, and then asserting that the percentages of upwind contribution captured from the 1 ppb threshold would be sufficiently substantial to justify its use for Missouri.

For the Wayne, Michigan receptor, MoDNR observed that application of a 1 ppb threshold would capture 61.8 percent of total upwind state contributions, and that the contribution captured by the 1 ppb threshold would constitute 92.2 percent of the total contribution that would be captured by application of the 0.70 ppb threshold. The State thus argued that use of a 1 ppb threshold instead of a 1% of the NAAQS threshold will capture a substantial amount of upwind states' contribution to the ozone concentrations at this site. Using this alternative threshold, MoDNR stated that the projected Missouri contribution to the Wayne, Michigan receptor is 0.92 ppb, and thus less than 1 ppb. MoDNR made a comparable argument for the Milwaukee, Wisconsin receptor (79.4 percent of the total contribution from all upwind states and that the contribution captured by the 1 ppb threshold is 83 percent of the amount captured by the 0.70 ppb threshold). For the receptors in Brazoria County and Harris County, Texas, the MoDNR did not provide any additional analyses to determine the appropriateness of the application of the 1 ppb threshold at either of these receptors, and simply referred to the August 2018 memorandum as evidence to support the use of a 1 ppb threshold at these receptors. Rather than a quantitative comparison, MoDNR made qualitative statements to the effect that a 1 ppb threshold would be appropriate given other considerations, such as the impacts of local or international sources.

However, the EPA's memorandum did not indicate that this type of information alone was determinative of whether an alternative threshold was in fact appropriate to justify use of a threshold in lieu of the 0.70 ppb level. Rather, the EPA determined that by capturing a percentage of upwind state emissions comparable to the amount captured at 1 percent, the alternative threshold *may* be appropriate, indicating that a more determinative conclusion of appropriateness would require further analysis. The MoDNR did not provide any further technical justification to make that determination.

The EPA notes that in each case, the use of the alternative 1 ppb threshold

would have the result of reducing the amount of cumulative upwind state emissions that would be captured. While the EPA does not, in this action, approve of the state's application of the 1 ppb threshold, because the state has linkages greater than 1 ppb to projected downwind nonattainment or maintenance receptors, the state's use of this alternative threshold at Step 2 of the 4-step interstate framework would not alter our review and proposed disapproval of this SIP submittal.

The EPA here shares further evaluation of its experience since the issuance of the August 2018 memorandum regarding use of alternative thresholds at Step 2. This experience leads the Agency to now believe it may not be appropriate to continue to attempt to recognize alternative contribution thresholds at Step 2. The August 2018 memorandum stated that ''it may be reasonable and appropriate'' for states to rely on an alternative threshold of 1 ppb at Step 2.[31] However, the EPA also indicated that ''air agencies should consider whether the recommendations in this guidance are appropriate for each situation.'' Following receipt and review of 49 good neighbor SIP submittals for the 2015 8-hour ozone NAAQS, the EPA's experience has been that nearly every state that attempted to rely on a 1 ppb threshold did not provide sufficient information and analysis to support a determination that an alternative threshold was reasonable or appropriate for that state.

For instance, in nearly all submittals, the states did not provide the EPA with analysis specific to their state or the receptors to which its emissions are potentially linked. In one case, the proposed approval of Iowa's SIP submittal, the EPA expended its own resources to attempt to supplement the information submitted by the state, in order to more thoroughly evaluate the state-specific circumstances that could support approval.[32] It was at the EPA's sole discretion to perform this analysis in support of the state's submittal, and the Agency is not obligated to conduct supplemental analysis to fill the gaps whenever it believes a state's analysis is insufficient. The Agency no longer intends to undertake supplemental analysis of SIP submittals with respect to alternative thresholds at Step 2 for purposes of the 2015 ozone NAAQS.

Furthermore, the EPA's experience since 2018 is that allowing for alternative Step 2 thresholds may be impractical or otherwise inadvisable for a number of additional policy reasons. For a regional air pollutant such as ozone, consistency in requirements and expectations across all states is essential. Based on its review of submittals to-date and after further consideration of the policy implications of attempting to recognize an alternative Step 2 threshold for certain states, the Agency now believes the attempted use of different thresholds at Step 2 with respect to the 2015 ozone NAAQS raises substantial policy, consistency, and practical implementation concerns.[33] The availability of different thresholds at Step 2 has the potential to result in inconsistent application of good neighbor obligations based solely on the strength of a state's SIP submittal at Step 2 of the 4-step interstate transport framework. From the perspective of ensuring effective regional implementation of good neighbor obligations, the more important analysis is the evaluation of the emissions reductions needed, if any, to address a state's significant contribution after consideration of a multifactor analysis at Step 3, including a detailed evaluation that considers air quality factors and cost. Where alternative thresholds for purposes of Step 2 may be ''similar'' in terms of capturing the relative amount of upwind contribution (as described in the August 2018 memorandum), nonetheless, use of an alternative threshold could allow certain states to avoid further evaluation of potential emission controls while other states must proceed to a Step 3 analysis. This can create significant equity and consistency problems among states.

Further, it is not clear that national ozone transport policy is best served by allowing for less stringent thresholds at Step 2. The EPA recognized in the August 2018 memo that there was some similarity in the amount of total upwind contribution captured (on a nationwide basis) between 1percent and 1 ppb. However, the EPA notes that while this may be true in some sense, that is hardly a compelling basis to move to a 1 ppb threshold. Indeed, the 1 ppb threshold has the disadvantage of losing a certain amount of total upwind contribution for further evaluation at Step 3 (*e.g.,* roughly seven percent of total upwind state contribution was lost according to the modeling underlying the August 2018 memorandum;[34] in the EPA's updated modeling, the amount lost is five percent). Considering the core statutory objective of ensuring elimination of all significant contribution to nonattainment or interference of the NAAQS in other states and the broad, regional nature of the collective contribution problem with respect to ozone, there does not appear to be a compelling policy imperative in allowing some states to use a 1 ppb threshold while others rely on a 1 percent of NAAQS threshold.

Consistency with past interstate transport actions such as CSAPR, and the CSAPR Update and Revised CSAPR Update rulemakings (which used a Step 2 threshold of 1 percent of the NAAQS for two less stringent ozone NAAQS), is also important. Continuing to use a 1 percent of NAAQS approach ensures that as the NAAQS are revised and made more stringent, an appropriate increase in stringency at Step 2 occurs, so as to ensure an appropriately larger amount of total upwind-state contribution is captured for purposes of fully addressing interstate transport. *Accord* 76 FR 48237–38.

Therefore, notwithstanding the August 2018 memorandum's recognition of the potential viability of alternative Step 2 thresholds, and in particular, a potentially applicable 1 ppb threshold, the EPA's experience since the issuance of that memo has revealed substantial programmatic and policy difficulties in attempting to implement this approach. Nonetheless, the EPA is not, at this time, rescinding the August 2018 memorandum. The EPA invites comment on this broader discussion of issues associated with alternative thresholds at Step 2. Depending on comment and further evaluation of this issue, the EPA may determine to rescind the August 2018 memorandum in the future.

MoDNR used two arguments at Step 2 for excluding the nonattainment receptor in Sheboygan, Wisconsin, (Monitor ID: 551170006). First, the State utilized a 2 ppb threshold at Step 2 to identify whether the state was ''linked'' to this receptor. Second, the state argued that any reductions from Missouri would have a de minimis or minimal effect on air quality improvements at this receptor due to the larger impacts from other states such as Wisconsin,

[31] August 2018 memo at 4.

[32] *Air Plan Approval; Iowa; Infrastructure State Implementation Plan Requirements for the 2015 Ozone National Ambient Air Quality Standard,* 85 FR 12232 (March 2, 2020). The Agency received adverse comment on this proposed approval and has not taken final action with respect to this proposal.

[33] We note that Congress has placed on the EPA a general obligation to ensure the requirements of the CAA are implemented consistently across states and regions. *See* CAA section 301(a)(2). Where the management and regulation of interstate pollution levels spanning many states is at stake, consistency in application of CAA requirements is paramount.

[34] *See* August 2018 memo, at 4.

Illinois and Indiana. The EPA discusses both of these arguments in this section.

In its analysis, the state argued that because a 2 ppb threshold would capture 68.2% of cumulative upwind state contributions at the Sheboygan receptor, similar to the ''approximately 70 percent of total upwind contribution'' captured on average nationwide at the 1 ppb threshold the EPA identified in the August 2018 memorandum, a 2 ppb threshold is appropriate to use at this receptor. While the EPA had determined that an alternative threshold that would capture a sufficient percentage of upwind state emissions comparable to the amount that would be captured at the level of 1 percent of the NAAQS *may* be appropriate, the Agency also indicated that more analysis would be needed to reach a determinative conclusion of appropriateness. As explained with respect to the alternative 1 ppb threshold that MoDNR sought to use for the for the receptors in Wayne Michigan, Milwaukee, Wisconsin and both Texas receptors, it did not provide any further technical justification to make the determination.

As explained with respect to the potential use of an alternative 1 ppb threshold, the EPA's experience since the issuance of the 2018 memorandum discussing the issue has revealed substantial programmatic and policy difficulties in attempting to implement this approach even for a 1 ppb threshold. At no point did the EPA suggest that a 2 ppb threshold might be appropriate for this purpose under any circumstances. Such a threshold would be higher than the threshold that the EPA has historically used in interstate transport rules that courts have approved (*i.e.,* 1 percent of the NAAQS at issue), or that the EPA has considered even potentially appropriate if it were to achieve functionally the same air quality impacts (*i.e.,* 1 ppb).

The second argument that the state used to exclude the Sheboygan, Wisconsin receptor in Step 2 was related to emissions from other states. The state argued that the primary contributors to the projected ozone concentrations in Sheboygan are the upwind states of Illinois and Indiana and the home state itself, Wisconsin. The EPA's 2018 modeling showed these states would contribute a combined 31.93 ppb in 2023 to the Sheboygan receptor. However, the state's reasoning related to Indiana, Illinois and Wisconsin emissions is inapplicable to the requirements of CAA section 110(a)(2)(D)(i)(I). The good neighbor provision requires states and the EPA to address interstate transport of air pollution that *contributes to* downwind states' ability to attain and maintain NAAQS. Whether emissions from other states also contribute to the same downwind air quality issue is irrelevant in assessing whether a downwind state has an air quality problem, or whether the upwind state at issue state is significantly contributing to that problem. The Ozone NAAQS nonattainment and maintenance problems that result from interstate transport are typically the result of cumulative impacts from multiple states. States are not obligated under CAA section 110(a)(2)(D)(i)(I) to reduce emissions only if doing so would be sufficient in isolation to resolve all downwind nonattainment or maintenance problems. Rather, each state is obligated to eliminate its own ''significant contribution'' or ''interference'' with the ability of other states to attain or maintain the NAAQS.

Indeed, the D.C. Circuit in *Wisconsin* specifically rejected petitioner arguments suggesting that upwind states should be excused from good neighbor obligations on the basis that some other source of emissions (whether international or another upwind state) could be considered the ''but-for'' cause of downwind air quality problem. 938 F.3d 303 at 323–324. The court viewed petitioners' arguments as essentially an argument ''that an upwind State 'contributes significantly' to downwind nonattainment only when its emissions are the sole cause of downwind nonattainment.'' 938 F.3d 303 at 324. The court explained that ''an upwind State can 'contribute' to downwind nonattainment even if its emissions are not the but-for cause.'' *Id.* at 324–325. *See also Catawba County* v. *EPA,* 571 F.3d 20, 39 (D.C. Cir. 2009) (rejecting the argument ''that 'significantly contribute' unambiguously means 'strictly cause' '' because there is ''no reason why the statute precludes EPA from determining that [an] addition of [pollutant] into the atmosphere is significant even though a nearby county's nonattainment problem would still persist in its absence''); *Miss. Comm'n on Envtl. Quality* v. *EPA,* 790 F.3d 138, 163 n.12 (D.C. Cir. 2015) (observing that the argument that ''there likely would have been no violation at all . . . if it were not for the emissions resulting from [another source]'' is ''merely a rephrasing of the but-for causation rule that we rejected in *Catawba County.*''). Therefore, a state is not excused from eliminating its significant contribution on the basis that other states' emissions also contribute some amount of pollution to the same receptors to which the state is linked. As a result, Step 3 analysis of the 4-Step Interstate Transport Framework is necessary.

Thus, the EPA proposes that MoDNR's submittal did not adequately justify the use of an alternative threshold or otherwise establish that it should not be considered linked at Step 2. The EPA proposes to apply the 1 percent of NAAQS threshold, consistent with the discussion in this subsection. Under the proposed 1 percent threshold, both in the modeling available to the state at the time it made its submittal, and under the newly available 2023 modeling discussed below, Missouri is linked to downwind nonattainment and maintenance receptors.[35]

3. Results of the EPA's Step 1 and Step 2 Modeling and Findings for Missouri

As described in section I, the EPA performed air quality modeling to project design values and contributions for 2023 using the 2016v2 emissions platform. The EPA examined these data to determine if emissions in Missouri contribute at or above the threshold of 1 percent of the 2015 8-hour ozone NAAQS (0.70 ppb) to any downwind nonattainment or maintenance receptor in this most recent round of modeling. As shown in Table 2, the data indicate that in 2023, emissions from sources in Missouri contribute greater than 1 percent of the NAAQS to nonattainment or maintenance-only receptors in Racine County and Kenosha County, Wisconsin, and Cook County, Illinois.[36] Therefore, based on the EPA's evaluation of the information submitted by MoDNR, and based on the EPA's most recent modeling results for 2023, the EPA proposes to find that Missouri is linked at steps 1 and 2 and has an obligation to assess potential emissions reductions from sources or other emissions activity at Step 3 of the 4-Step framework.

[35] Because the EPA finds that the MoDNR submittal's arguments with respect to its linkages in the modeling it relied on are not sufficient or technically justified to conclude the state is not linked to downwind receptors, the EPA can also conclude that the same arguments would not be meritorious even if applied with respect to the receptor linkages the EPA finds in its more recent 2023 modeling using the 2016v2 emissions platform.

[36] Design values and contributions at individual monitoring sites nationwide are provide in the file: ''2016v2_DVs_state_contributions.xlsx'' which is included in docket ID No. EPA–HQ–OAR–2021–0663.

TABLE 2—MISSOURI LINKAGE RESULTS BASED ON THE EPA UPDATED 2023 MODELING

Receptor ID	Location	Nonattainment/maintenance	2023 Average design value (ppb)	2023 Maximum design value (ppb)	MO contribution (ppb)
550590025	Kenosha, Wisconsin	Maintenance	69.2	72.3	1.66
550590019	Kenosha, Wisconsin	Nonattainment	72.8	73.7	1.08
170317002	Cook, Illinois	Maintenance	70.1	73.0	0.94
551010020	Racine, Wisconsin	Nonattainment	71.3	73.2	0.92

4. Evaluation of Information Provided Regarding Step 3

At Step 3, of the 4-step interstate transport framework, a state's emissions are further evaluated, in light of multiple factors, including air quality and cost considerations, to determine what, if any, emissions significantly contribute to nonattainment or interfere with maintenance and, thus, must be eliminated under CAA section 110(a)(2)(D)(i)(I).

To evaluate effectively which emissions in the state should be deemed ''significant'' and therefore prohibited, states generally should prepare an accounting of sources and other emissions activity for relevant pollutants and assess potential, additional emissions reduction opportunities and resulting downwind air quality improvements. The EPA has consistently applied this general approach (*i.e.,* Step 3 of the 4-step interstate transport framework) when identifying emissions contributions that the Agency has determined to be ''significant'' (or interfere with maintenance) in each of its prior Federal, regional ozone transport rulemakings, and this interpretation of the statute has been upheld by the Supreme Court. *See EME Homer City,* 572 U.S. 489, 519 (2014). While the EPA has not directed states that they must conduct a Step 3 analysis in precisely the manner the EPA has done in its prior regional transport rulemakings, state implementation plans addressing the obligations in CAA section 110(a)(2)(D)(i)(I) must prohibit ''any source or other type of emissions activity within the State'' from emitting air pollutants which will contribute significantly to downwind air quality problems. Thus, states must complete something similar to the EPA's analysis (or an alternative approach to defining ''significance'' that comports with the statute's objectives) to determine whether and to what degree emissions from a state should be ''prohibited'' to eliminate emissions that will ''contribute significantly to nonattainment in, or interfere with maintenance of'' the NAAQS in any other state.

MoDNR did not conduct such an analysis in its SIP submission, as a result of its conclusions pursuant to Step 1 and Step 2 of its analysis with respect to the six receptors that the EPA previously identified. As explained in connection with the evaluation of MoDNR's Step 1 and Step 2 analyses, the EPA disagrees with those analyses and accordingly the State should have evaluated effectively which emissions in the State should be deemed ''significant'' and therefore prohibited, in its SIP submission. We therefore propose that MoDNR was required to analyze emissions from the sources and other emissions activity from within the state to determine whether its contributions were significant, and we propose to disapprove its submission because MoDNR failed to do so.

5. Evaluation of Information Provided Regarding Step 4

Step 4 of the 4-step interstate transport framework calls for development of permanent and federally enforceable control strategies to achieve the emissions reductions determined to be necessary at step 3 to eliminate significant contribution to nonattainment or interference with maintenance of the NAAQS. As mentioned previously, Missouri's SIP submission did not contain an evaluation of additional emission control opportunities (or establish that no additional controls are required), thus, no information was provided at step 4. As a result, the EPA proposes to disapprove Missouri' submittal on the separate, additional basis that the State has not developed permanent and enforceable emissions reductions necessary to meet the obligations of CAA section 110(a)(2)(d)(i)(I).

6. Conclusion

Based on the EPA's evaluation of the MoDNR's SIP submission, the EPA is proposing to find that the MoDNR's June 10, 2019 SIP submission addressing CAA section 110(a)(2)(D)(i)(I) does not meet the State's interstate transport obligations, because it fails to contain the necessary provisions to eliminate emissions that will contribute significantly to nonattainment or interfere with maintenance of the 2015 8-hour ozone NAAQS in any other state.

IV. Proposed Action

We are proposing to disapprove the MoDNR's June 10, 2019 SIP submission pertaining to interstate transport of air pollution which will significantly contribute to nonattainment or interfere with maintenance of the 2015 8-hour ozone NAAQS in other states. Under CAA section 110(c)(1), disapproval would establish a 2-year deadline for the EPA to promulgate a FIP for Missouri to address the CAA section 110(a)(2)(D)(i)(I) interstate transport requirements pertaining to significant contribution to nonattainment and interference with maintenance of the 2015 8-hour ozone NAAQS in other states, unless the EPA approves a SIP that meets these requirements. Disapproval does not start a mandatory sanctions clock for Missouri.

V. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review

This action is not a significant regulatory action and was therefore not submitted to the Office of Management and Budget for review.

B. Paperwork Reduction Act (PRA)

This proposed action does not impose an information collection burden under the PRA because it does not contain any information collection activities.

C. Regulatory Flexibility Act (RFA)

I certify that this action will not have a significant economic impact on a substantial number of small entities under the RFA. This action merely proposes to disapprove a SIP submission as not meeting the CAA.

D. Unfunded Mandates Reform Act (UMRA)

This action does not contain any unfunded mandate as described in UMRA, 2 U.S.C. 1531–1538, and does

not significantly or uniquely affect small governments. The action imposes no enforceable duty on any state, local or tribal governments or the private sector.

E. Executive Order 13132: Federalism

This action does not have federalism implications. It will not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government.

F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments

This action does not have tribal implications as specified in Executive Order 13175. This action does not apply on any Indian reservation land, any other area where the EPA or an Indian tribe has demonstrated that a tribe has jurisdiction, or non-reservation areas of Indian country. Thus, Executive Order 13175 does not apply to this action.

G. Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks

The EPA interprets Executive Order 13045 as applying only to those regulatory actions that concern environmental health or safety risks that the EPA has reason to believe may disproportionately affect children, per the definition of ''covered regulatory action'' in section 2–202 of the Executive Order. This action is not subject to Executive Order 13045 because it merely proposes to disapprove a SIP submission as not meeting the CAA.

H. Executive Order 13211, Actions That Significantly Affect Energy Supply, Distribution or Use

This action is not subject to Executive Order 13211, because it is not a significant regulatory action under Executive Order 12866.

I. National Technology Transfer and Advancement Act

This rulemaking does not involve technical standards.

J. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations

The EPA believes the human health or environmental risk addressed by this action will not have potential disproportionately high and adverse human health or environmental effects on minority, low-income or indigenous populations. This action merely proposes to disapprove a SIP submission as not meeting the CAA.

K. CAA Section 307(b)(1)

Section 307(b)(1) of the CAA governs judicial review of final actions by the EPA. This section provides, in part, that petitions for review must be filed in the D.C. Circuit: (i) When the agency action consists of ''nationally applicable regulations promulgated, or final actions taken, by the Administrator,'' or (ii) when such action is locally or regionally applicable, if ''such action is based on a determination of nationwide scope or effect and if in taking such action the Administrator finds and publishes that such action is based on such a determination.'' For locally or regionally applicable final actions, the CAA reserves to the EPA complete discretion whether to invoke the exception in (ii).[37]

If the EPA takes final action on this proposed rulemaking the Administrator intends to exercise the complete discretion afforded to him under the CAA to make and publish a finding that the final action (to the extent a court finds the action to be locally or regionally applicable) is based on a determination of ''nationwide scope or effect'' within the meaning of CAA section 307(b)(1). Through this rulemaking action (in conjunction with a series of related actions on other SIP submissions for the same CAA obligations), the EPA interprets and applies section 110(a)(2)(d)(i)(I) of the CAA for the 2015 ozone NAAQS based on a common core of nationwide policy judgments and technical analysis concerning the interstate transport of pollutants throughout the continental U.S. In particular, the EPA is applying here (and in other proposed actions related to the same obligations) the same, nationally consistent 4-step framework for assessing good neighbor obligations for the 2015 ozone NAAQS. The EPA relies on a single set of updated, 2016-base year photochemical grid modeling results of the year 2023 as the primary basis for its assessment of air quality conditions and contributions at steps 1 and 2 of that framework. Further, the EPA proposes to determine and apply a set of nationally consistent policy judgments to apply the 4-step framework. The EPA has selected a nationally uniform analytic year (2023) for this analysis and is applying a nationally uniform approach to nonattainment and maintenance receptors and a nationally uniform approach to contribution threshold analysis.[38] For these reasons, the Administrator intends, if this proposed action is finalized, to exercise the complete discretion afforded to him under the CAA to make and publish a finding that this action is based on one or more determinations of nationwide scope or effect for purposes of CAA section 307(b)(1).[39]

[37] In deciding whether to invoke the exception by making and publishing a finding that an action is based on a determination of nationwide scope or effect, the Administrator takes into account a number of policy considerations, including his judgment balancing the benefit of obtaining the D.C. Circuit's authoritative centralized review versus allowing development of the issue in other contexts and the best use of Agency resources.

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Ozone.

Authority: 42 U.S.C. 7401 *et seq.*

Dated: February 9, 2022.

Meghan A. McCollister,

Regional Administrator, Region 7.

[FR Doc. 2022–03183 Filed 2–18–22; 8:45 am]

BILLING CODE 6560–50–P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA–R04–OAR–2021–0841; EPA–HQ–OAR–2021–0663; FRL–9421–01–R4]

Air Plan Disapproval; AL, MS, TN; Interstate Transport Requirements for the 2015 8-Hour Ozone National Ambient Air Quality Standards

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule and withdrawal of proposed rule.

SUMMARY: Pursuant to the Federal Clean Air Act (CAA or the Act), the Environmental Protection Agency (EPA or Agency) is proposing to disapprove State Implementation Plan (SIP) submittals from Alabama, Mississippi,

[38] A finding of nationwide scope or effect is also appropriate for actions that cover states in multiple judicial circuits. In the report on the 1977 Amendments that revised section 307(b)(1) of the CAA, Congress noted that the Administrator's determination that the ''nationwide scope or effect'' exception applies would be appropriate for any action that has a scope or effect beyond a single judicial circuit. See H.R. Rep. No. 95–294 at 323, 324, reprinted in 1977 U.S.C.C.A.N. 1402–03.

[39] The EPA may take a consolidated, single final action on all of the proposed SIP disapproval actions with respect to obligations under CAA section 110(a)(2)(D)(i)(I) for the 2015 ozone NAAQS. Should EPA take a single final action on all such disapprovals, this action would be nationally applicable, and the EPA would also anticipate, in the alternative, making and publishing a finding that such final action is based on a determination of nationwide scope or effect.

and Tennessee regarding the interstate transport requirements for the 2015 8-hour ozone national ambient air quality standards (NAAQS or standard). The ''Good Neighbor'' or ''Interstate Transport'' provision requires that each state's implementation plan contain adequate provisions to prohibit emissions from within the state from significantly contributing to nonattainment or interfering with maintenance of the NAAQS in other states. This requirement is part of the broader set of ''infrastructure'' requirements, which are designed to ensure that the structural components of each state's air quality management program are adequate to meet the state's responsibilities under the CAA. These disapprovals, if finalized, will establish a 2-year deadline for EPA to promulgate a Federal Implementation Plan (FIP) to address the relevant interstate transport requirements, unless EPA approves a subsequent SIP submittal that meets these requirements. Disapproval does not start a mandatory sanctions clock.

DATES: *Comments.* Comments on this proposed rule must be received on or before April 25, 2022.

Withdrawal: As of February 22, 2022, the proposed rule published December 30, 2019, at 84 FR 71854, is withdrawn.

ADDRESSES: You may submit comments, identified by Docket No. EPA–R04–OAR–2021–0841, through the Federal eRulemaking Portal at *https://www.regulations.gov* following the online instructions for submitting comments.

Instructions: All submissions received must include the Docket No. EPA–R04–OAR–2021–0841 for this rulemaking. Comments received may be posted without change to *https://www.regulations.gov/,* including any personal information provided. For detailed instructions on submitting comments and additional information on the rulemaking process, see the ''Public Participation'' heading of the **SUPPLEMENTARY INFORMATION** section of this document. Out of an abundance of caution for members of the public and staff, the EPA Docket Center and Reading Room are open to the public by appointment only to reduce the risk of transmitting COVID–19. The Docket Center staff also continues to provide remote customer service via email, phone, and webform. For further information on EPA Docket Center services and the current status, please visit EPA online at *https://www.epa.gov/dockets.*

FOR FURTHER INFORMATION CONTACT: Evan Adams of the Air Regulatory Management Section, Air Planning and Implementation Branch, Air and Radiation Division, U.S. Environmental Protection Agency, Region 4, 61 Forsyth Street SW, Atlanta, Georgia 30303–8960. Mr. Adams can be reached by telephone at (404) 562–9009, or via electronic mail at *adams.evan@epa.gov.*

SUPPLEMENTARY INFORMATION: *Public Participation:* Submit your comments, identified by Docket No. EPA–R04–OAR–2021–0841, at *https://www.regulations.gov.* Once submitted, comments cannot be edited or removed from the docket. EPA may publish any comment received to its public docket. Do not submit to EPA's docket at *https://www.regulations.gov* any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. EPA will generally not consider comments or comment contents located outside of the primary submission (*i.e.,* on the web, cloud, or other file sharing system).

There are two dockets supporting this action, EPA–R04–OAR–2021–0841 and EPA–HQ–OAR–2021–0663. Docket No. EPA–R04–OAR–2021–0841 contains information specific to Alabama, Mississippi, and Tennessee, including this notice of proposed rulemaking. Docket No. EPA–HQ–OAR–2021–0663 contains additional modeling files, emissions inventory files, technical support documents, and other relevant supporting documentation regarding interstate transport of emissions for the 2015 8-hour ozone NAAQS which are being used to support this action. All comments regarding information in either of these dockets are to be made in Docket No. EPA–R04–OAR–2021–0841. For the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit *https://www.epa.gov/dockets/commenting-epa-dockets.* Due to public health concerns related to COVID–19, the EPA Docket Center and Reading Room are open to the public by appointment only. The Docket Center staff also continues to provide remote customer service via email, phone, and webform. For further information and updates on EPA Docket Center services, please visit EPA online at *https://www.epa.gov/dockets.*

EPA continues to carefully and continuously monitor information from the Centers for Disease Control and Prevention (CDC), local area health departments, and Federal partners so that EPA can respond rapidly as conditions change regarding COVID–19.

The indices to Docket No. EPA–R04–OAR–2021–0841 and Docket No. EPA–R04–OAR–2021–0841 are available electronically at *www.regulations.gov.* While all documents in each docket are listed in their respective index, some information may not be publicly available due to docket file size restrictions or content (*e.g.,* CBI).

Table of Contents

I. Background

The following provides background for EPA's proposed actions related to the interstate transport requirements for the 2015 8-hour ozone NAAQS for the states of Alabama, Mississippi, and Tennessee.

A. Description of Statutory Background

On October 1, 2015, EPA promulgated a revision to the ozone NAAQS (2015 8-hour ozone NAAQS), lowering the level of both the primary and secondary standards to 0.070 parts per million (ppm).[1] Section 110(a)(1) of the CAA requires states to submit, within 3 years after promulgation of a new or revised standard, SIP submissions meeting the applicable requirements of section 110(a)(2).[2] One of these applicable requirements is found in CAA section 110(a)(2)(D)(i)(I), otherwise known as the ''good neighbor'' or ''interstate transport'' provision, which generally requires SIPs to contain adequate provisions to prohibit in-state emissions activities from having certain adverse air quality effects on other states due to

[1] National Ambient Air Quality Standards for Ozone, Final Rule, 80 FR 65292 (October 26, 2015). Although the level of the standard is specified in the units of ppm, ozone concentrations are also described in parts per billion (ppb). For example, 0.070 ppm is equivalent to 70 ppb.

[2] SIP revisions that are intended to meet the applicable requirements of section 110(a)(1) and (2) of the CAA are often referred to as infrastructure SIPs and the applicable elements under section 110(a)(2) are referred to as infrastructure requirements.

interstate transport of pollution. There are two so-called ''prongs'' within CAA section 110(a)(2)(D)(i)(I). A SIP for a new or revised NAAQS must contain adequate provisions prohibiting any source or other type of emissions activity within the state from emitting air pollutants in amounts that will significantly contribute to nonattainment of the NAAQS in another state (prong 1) or interfere with maintenance of the NAAQS in another state (prong 2). EPA and states must give independent significance to prong 1 and prong 2 when evaluating downwind air quality problems under CAA section 110(a)(2)(D)(i)(I).[3]

B. Description of EPA's Four Step Interstate Transport Regulatory Process

EPA is using the 4-step interstate transport framework (or 4-step framework) to evaluate the states' implementation plan submittals addressing the interstate transport provision for the 2015 8-hour ozone NAAQS. EPA has addressed the interstate transport requirements of CAA section 110(a)(2)(D)(i)(I) with respect to prior ozone NAAQS in several regional regulatory actions, including the Cross-State Air Pollution Rule (CSAPR), which addressed interstate transport with respect to the 1997 ozone NAAQS as well as the 1997 and 2006 fine particulate matter standards,[4] the Cross-State Air Pollution Rule Update (CSAPR Update) [5] and the Revised CSAPR Update, both of which addressed the 2008 ozone NAAQS.[6]

Through the development and implementation of the CSAPR rulemakings and prior regional rulemakings pursuant to the interstate transport provision,[7] EPA, working in partnership with states, developed the following 4-step interstate transport framework to evaluate a state's obligations to eliminate interstate transport emissions under the interstate transport provision for the ozone NAAQS: (1) Identify monitoring sites that are projected to have problems attaining and/or maintaining the NAAQS (*i.e.,* nonattainment and/or maintenance receptors); (2) identify states that impact those air quality problems in other (*i.e.,* downwind) states sufficiently such that the states are considered ''linked'' and therefore warrant further review and analysis; (3) identify the emissions reductions necessary (if any), applying a multifactor analysis, to eliminate each linked upwind state's significant contribution to nonattainment or interference with maintenance of the NAAQS at the locations identified in Step 1; and (4) adopt permanent and enforceable measures needed to achieve those emissions reductions.

C. Background on EPA's Ozone Transport Modeling Information

In general, EPA has performed nationwide air quality modeling to project ozone design values which are used in combination with measured data to identify nonattainment and maintenance receptors. To quantify the contribution of emissions from specific upwind states on 2023 ozone design values for the identified downwind nonattainment and maintenance receptors, EPA performed nationwide, state-level ozone source apportionment modeling for 2023. The source apportionment modeling provided contributions to ozone at receptors from precursor emissions of anthropogenic nitrogen oxides (NO_X) and volatile organic compounds (VOCs) in individual upwind states.

EPA has released several documents containing projected design values, contributions, and information relevant to evaluating interstate transport with respect to the 2015 8-hour ozone NAAQS. First, on January 6, 2017, EPA published a notice of data availability (NODA) in which the Agency requested comment on preliminary interstate ozone transport data including projected ozone design values and interstate contributions for 2023 using a 2011 base year platform.[8] In the NODA, EPA used the year 2023 as the analytic year for this preliminary modeling because that year aligns with the expected attainment year for Moderate ozone nonattainment areas for the 2015 8-hour ozone NAAQS.[9] On October 27, 2017, EPA released a memorandum (October 2017 memorandum) containing updated modeling data for 2023, which incorporated changes made in response to comments on the NODA, and noted that the modeling may be useful for states developing SIPs to address interstate transport obligations for the 2008 ozone NAAQS.[10] On March 27, 2018, EPA issued a memorandum (March 2018 memorandum) noting that the same 2023 modeling data released in the October 2017 memorandum could also be useful for identifying potential downwind air quality problems with respect to the 2015 8-hour ozone NAAQS at Step 1 of the 4-step interstate transport framework.[11] The March 2018 memorandum also included the then newly available contribution modeling data for 2023 to assist states in evaluating their impact on potential downwind air quality problems for the 2015 8-hour ozone NAAQS under Step 2 of the 4-step interstate transport framework.[12] EPA subsequently issued two more memoranda in August and October 2018, providing additional information to states developing interstate transport SIP submissions for the 2015 8-hour ozone NAAQS concerning, respectively, potential contribution thresholds that may be appropriate to apply in Step 2 of the 4-step interstate transport framework, and considerations for identifying downwind areas that may have problems maintaining the standard at

[3] *See North Carolina* v. *EPA,* 531 F.3d 896, 909–11 (D.C. Cir. 2008).

[4] *See* Federal Implementation Plans: Interstate Transport of Fine Particulate Matter and Ozone and Correction of SIP Approvals, 76 FR 48208 (August 8, 2011).

[5] Cross-State Air Pollution Rule Update for the 2008 Ozone NAAQS, 81 FR 74504 (October 26, 2016).

[6] In 2019, the United States Court of Appeals for the District of Columbia Circuit (D.C. Circuit) remanded CSAPR Update to the extent it failed to require upwind states to eliminate their significant contribution by the next applicable attainment date by which downwind states must come into compliance with the NAAQS, as established under CAA section 181(a). *Wisconsin* v. *EPA,* 938 F.3d 303, 313 (D.C. Cir. 2019). The Revised CSAPR Update for the 2008 Ozone NAAQS, 86 FR 23054 (April 30, 2021), responded to the remand of CSAPR Update in *Wisconsin* and the vacatur of a separate rule, the ''CSAPR Close-Out,'' 83 FR 65878 (December 21, 2018), in *New York* v. *EPA,* 781 F. App'x. 4 (D.C. Cir. 2019).

[7] In addition to CSAPR rulemakings, other regional rulemakings addressing ozone transport include the ''NO_X SIP Call,'' 63 FR 57356 (October 27, 1998), and the ''Clean Air Interstate Rule'' (CAIR), 70 FR 25162 (May 12, 2005).

[8] *See* Notice of Availability of the Environmental Protection Agency's Preliminary Interstate Ozone Transport Modeling Data for the 2015 8-hour Ozone National Ambient Air Quality Standard (NAAQS), 82 FR 1733 (January 6, 2017).

[9] *See* 82 FR 1733, 1735 (January 6, 2017).

[10] *See* Information on the Interstate Transport State Implementation Plan Submissions for the 2008 Ozone National Ambient Air Quality Standards under Clean Air Act Section 110(a)(2)(D)(i)(I), October 27, 2017 (''October 2017 memorandum''), available in Docket No. EPA–HQ–OAR–2021–0663 or at *https://www.epa.gov/interstate-air-pollution-transport/interstate-air-pollution-transport-memos-and-notices.*

[11] *See* Information on the Interstate Transport State Implementation Plan Submissions for the 2015 Ozone National Ambient Air Quality Standards under Clean Air Act Section 110(a)(2)(D)(i)(I), March 27, 2018 (''March 2018 memorandum''), available in Docket No. EPA–HQ–OAR–2021–0663 or at *https://www.epa.gov/interstate-air-pollution-transport/interstate-air-pollution-transport-memos-and-notices.*

[12] The March 2018 memorandum, however, provided, ''While the information in this memorandum and the associated air quality analysis data could be used to inform the development of these SIPs, the information is not a final determination regarding states' obligations under the good neighbor provision. Any such determination would be made through notice-and-comment rulemaking.''

Step 1 of the 4-step interstate transport framework.[13]

Since the release of the modeling data shared in the March 2018 memorandum, EPA performed updated modeling using a 2016-based emissions modeling platform (*i.e.,* 2016v1). This emissions platform was developed under the EPA/Multi-Jurisdictional Organization (MJO)/state collaborative project.[14] This collaborative project was a multi-year joint effort by EPA, MJOs, and states to develop a new, more recent emissions platform for use by EPA and states in regulatory modeling as an improvement over the dated 2011-based platform that EPA had used to project ozone design values and contribution data provided in the 2017 and 2018 memoranda. EPA used the 2016v1 emissions to project ozone design values and contributions for 2023. On October 30, 2020, in the Notice of Proposed Rulemaking for the Revised CSAPR Update, EPA released and accepted public comment on 2023 modeling that used the 2016v1 emissions platform.[15] Although the Revised CSAPR Update addressed transport for the 2008 ozone NAAQS, the projected design values and contributions from the 2016v1 platform are also useful for identifying downwind ozone problems and linkages with respect to the 2015 8-hour ozone NAAQS.[16]

Following the Revised CSAPR Update final rule, EPA made further updates to the 2016 emissions platform to include mobile emissions from EPA's Motor Vehicle Emission Simulator (MOVES) model [17] and updated emissions projections for electric generating units (EGUs) that reflect the emissions reductions from the Revised CSAPR Update, recent information on plant closures, and other sector trends. The construct of the updated emissions platform, 2016v2, is described in the Preparation of Emissions Inventories for the 2016v2 North American Emissions Modeling Platform technical support document (TSD) for this proposed rule and is included in Docket No. EPA–HQ–OAR–2021–0663. EPA performed air quality modeling of the 2016v2 emissions using the most recent public release version of the Comprehensive Air Quality Modeling with Extensions (CAMx) photochemical modeling, version 7.10.[18] EPA proposes to primarily rely on modeling based on the updated and newly available 2016v2 emissions platform in evaluating these submissions with respect to Steps 1 and 2 of the 4-step interstate transport framework. By using the updated modeling results, EPA is using the most current and technically appropriate information for this proposed rulemaking. Section II of this notice and the Air Quality Modeling TSD included in Docket No. EPA–HQ–OAR–2021–0663 for this proposal contain additional detail on the modeling performed using the 2016v2 emissions modeling.

In this notice, EPA is accepting public comment on this updated 2023 modeling, which uses the 2016v2 emissions platform. Details on the air quality modeling and the methods for projecting design values and determining contributions in 2023 are described in the Air Quality Modeling TSD for 2015 8-hour ozone NAAQS Transport SIP Proposed Actions. Comments on EPA's air quality modeling should be submitted in Docket No. EPA–R04–OAR–2021–0841. Comments are not being accepted in Docket No. EPA–HQ–OAR–2021–0663.

States may have chosen to rely on the results of EPA modeling and/or alternative modeling performed by states or Multi-Jurisdictional Organizations (MJOs) to evaluate downwind air quality problems and contributions as part of their submissions. In Section II, EPA evaluates how Alabama, Mississippi, and Tennessee used air quality modeling information in their submissions.

D. EPA's Approach to Evaluating Interstate Transport SIPs for the 2015 8-Hour Ozone NAAQS

EPA proposes to apply a consistent set of policy judgments across all states for purposes of evaluating interstate transport obligations and the approvability of interstate transport SIP submittals for the 2015 8-hour ozone NAAQS. These policy judgments reflect consistency with relevant case law and past agency practice as reflected in CSAPR and related rulemakings. Nationwide consistency in approach is particularly important in the context of interstate ozone transport, which is a regional-scale pollution problem involving many smaller contributors. Effective policy solutions to the problem of interstate ozone transport going back to the NO_x SIP Call have necessitated the application of a uniform framework of policy judgments in order to ensure an ''efficient and equitable'' approach. *See EME Homer City Generation, LP* v. *EPA,* 572 U.S. 489, 519 (2014).

In the March, August, and October 2018 memoranda, EPA recognized that states may be able to establish alternative approaches to addressing their interstate transport obligations for the 2015 8-hour ozone NAAQS that vary from a nationally uniform framework. EPA emphasized in these memoranda, however, that such alternative approaches must be technically justified and appropriate in light of the facts and circumstances of each particular state's submittal. In general, EPA continues to believe that deviation from a nationally consistent approach to ozone transport must be substantially justified and have a well-documented technical basis that is consistent with relevant case law. Where states submitted SIPs that rely on any such potential concepts as may have been identified or suggested in the past, EPA will evaluate whether the state adequately justified the technical and legal basis for doing so.

EPA notes that certain potential concepts included in an attachment to the March 2018 memorandum require unique consideration, and these ideas do not constitute agency guidance with respect to transport obligations for the 2015 8-hour ozone NAAQS. Attachment A to the March 2018 memorandum identified a ''Preliminary List of Potential Flexibilities'' that could potentially inform SIP development.[19] However, EPA made clear in that attachment that the list of ideas were not suggestions endorsed by the Agency but rather ''comments provided in various forums'' on which EPA sought ''feedback from interested stakeholders.'' [20] Further, Attachment A stated, ''EPA is not at this time making any determination that the ideas discussed below are consistent with the requirements of the CAA, nor is EPA specifically recommending that states

[13] *See* Analysis of Contribution Thresholds for Use in Clean Air Act Section 110(a)(2)(D)(i)(I) Interstate Transport State Implementation Plan Submissions for the 2015 Ozone National Ambient Air Quality Standards, August 31, 2018) (''August 2018 memorandum''), and Considerations for Identifying Maintenance Receptors for Use in Clean Air Act Section 110(a)(2)(D)(i)(I) Interstate Transport State Implementation Plan Submissions for the 2015 Ozone National Ambient Air Quality Standards, October 19, 2018 (''October 2018 memorandum''), available in Docket No. EPA–HQ–OAR–2021–0663 or at *https://www.epa.gov/airmarkets/memo-and-supplemental-information-regarding-interstate-transport-sips-2015-ozone-naaqs.*

[14] The results of this modeling, as well as the underlying modeling files, are included in Docket No. EPA–HQ–OAR–2021–0663.

[15] *See* 85 FR 68964, 68981 (October 30, 2020).

[16] *See* the Air Quality Modeling Technical Support Document for the Final Revised Cross-State Air Pollution Rule Update, included in Docket No. EPA–HQ–OAR–2021–0663.

[17] Additional details and documentation related to the MOVES3 model can be found at *https://www.epa.gov/moves/latest-version-motor-vehicle-emission-simulator-moves.*

[18] Ramboll Environment and Health, January 2021, *www.camx.com.*

[19] March 2018 memorandum, Attachment A.

[20] *Id.* at A–1.

use these approaches.'' [21] Attachment A to the March 2018 memorandum, therefore, does not constitute agency guidance, but was intended to generate further discussion around potential approaches to addressing ozone transport among interested stakeholders. To the extent states sought to develop or rely on these ideas in support of their SIP submittals, EPA will thoroughly review the technical and legal justifications for doing so.

The remainder of this section describes the EPA's proposed framework with respect to analytic year, definition of nonattainment and maintenance receptors, selection of contribution threshold, and multifactor control strategy assessment.

1. Selection of Analytic Year

In general, the states and EPA must implement the interstate transport provision in a manner ''consistent with the provisions of [title I of the CAA.]'' *See* CAA section 110(a)(2)(D)(i). This requires, among other things, that these obligations are addressed consistently with the timeframes for downwind areas to meet their CAA obligations. With respect to ozone NAAQS, under CAA section 181(a), this means obligations must be addressed ''as expeditiously as practicable'' and no later than the schedule of attainment dates provided in CAA section 181(a)(1).[22] Several D.C. Circuit court decisions address the issue of the relevant analytic year for the purposes of evaluating ozone transport air-quality problems. On September 13, 2019, the D.C. Circuit issued a decision in *Wisconsin* v. *EPA,* remanding the CSAPR Update to the extent that it failed to require upwind states to eliminate their significant contribution by the next applicable attainment date by which downwind states must come into compliance with the NAAQS, as established under CAA section 181(a). *See* 938 F.3d 303, 313.

On May 19, 2020, the D.C. Circuit issued a decision in *Maryland* v. *EPA* that cited the *Wisconsin* decision in holding that EPA must assess the impact of interstate transport on air quality at the next downwind attainment date, including Marginal area attainment dates, in evaluating the basis for EPA's denial of a petition under CAA section 126(b). *Maryland* v. *EPA,* 958 F.3d 1185, 1203–04 (D.C. Cir. 2020). The court noted that ''section 126(b) incorporates the Good Neighbor Provision,'' and, therefore, ''EPA must find a violation [of section 126] if an upwind source will significantly contribute to downwind nonattainment at the *next downwind attainment deadline.* Therefore, the agency must evaluate downwind air quality at that deadline, not at some later date.'' *Id.* at 1204 (emphasis added). EPA interprets the court's holding in *Maryland* as requiring the states and the Agency, under the good neighbor provision, to assess downwind air quality as expeditiously as practicable and no later than the next applicable attainment date,[23] which is now the Moderate area attainment date under CAA section 181 for ozone nonattainment. The Moderate area attainment date for the 2015 8-hour ozone NAAQS is August 3, 2024.[24] EPA believes that 2023 is now the appropriate year for analysis of interstate transport obligations for the 2015 8-hour ozone NAAQS, because the 2023 ozone season is the last relevant ozone season during which achieved emissions reductions in linked upwind states could assist downwind states with meeting the August 3, 2024, Moderate area attainment date for the 2015 8-hour ozone NAAQS.

EPA recognizes that the attainment date for nonattainment areas classified as Marginal for the 2015 8-hour ozone NAAQS was August 3, 2021. Under the *Maryland* holding, any necessary emissions reductions to satisfy interstate transport obligations should have been implemented by no later than this date. At the time of the statutory deadline to submit interstate transport SIPs (October 1, 2018), many states relied upon EPA modeling of the year 2023, and no state provided an alternative analysis using a 2021 analytic year (or the prior 2020 ozone season). However, EPA must act on SIP submittals using the information available at the time it takes such action. In this circumstance, EPA does not believe it would be appropriate to evaluate states' obligations under CAA section 110(a)(2)(D)(i)(I) as of an attainment date that is wholly in the past, because the Agency interprets the interstate transport provision as forward looking. *See* 86 FR 23054, 23074; *see also Wisconsin,* 938 F.3d at 322. Consequently, in this proposal EPA will use the analytical year of 2023 to evaluate each state's CAA section 110(a)(2)(D)(i)(I) SIP submission with respect to the 2015 8-hour ozone NAAQS.

2. Step 1 of the 4-Step Interstate Transport Framework

In Step 1, EPA identifies monitoring sites that are projected to have problems attaining and/or maintaining the NAAQS in the 2023 analytic year. Where EPA's analysis shows that a site does not fall under the definition of a nonattainment or maintenance receptor, that site is excluded from further analysis under EPA's 4-step interstate transport framework. For sites that are identified as a nonattainment or maintenance receptor in 2023, EPA proceeds to the next step of the 4-step interstate transport framework by identifying the upwind state's contribution to those receptors.

EPA's approach to identifying ozone nonattainment and maintenance receptors in this action is consistent with the approach used in previous transport rulemakings. EPA's approach gives independent consideration to both the ''contribute significantly to nonattainment'' and the ''interfere with maintenance'' prongs of CAA section 110(a)(2)(D)(i)(I), consistent with the D.C. Circuit's direction in *North Carolina* v. *EPA.*[25]

For the purpose of this proposal, EPA identifies nonattainment receptors as those monitoring sites that are projected to have average design values that exceed the NAAQS and that are also measuring nonattainment based on the most recent monitored design values. This approach is consistent with prior transport rulemakings, such as the CSAPR Update, where EPA defined nonattainment receptors as those areas that both currently measure nonattainment and that EPA projects will be in nonattainment in the future analytic year (*i.e.,* 2023).[26]

In addition, in this proposal, EPA identifies a receptor to be a ''maintenance'' receptor for purposes of

[21] *Id.*

[22] For attainment dates for the 2015 8-hour ozone NAAQS, refer to CAA section 181(a), 40 CFR 51.1303, and Additional Air Quality Designations for the 2015 Ozone National Ambient Air Quality Standards, 83 FR 25776 (June 4, 2018, effective August 3, 2018).

[23] EPA notes that the court in *Maryland* did not have occasion to evaluate circumstances in which EPA may determine that an upwind linkage to a downwind air quality problem exists at Steps 1 and 2 of the interstate transport framework by a particular attainment date, but for reasons of impossibility or profound uncertainty the Agency is unable to mandate upwind pollution controls by that date. *See Wisconsin,* 938 F.3d at 320. The D.C. Circuit noted in *Wisconsin* that upon a sufficient showing, these circumstances may warrant flexibility in effectuating the purpose of the interstate transport provision.

[24] *See* CAA section 181(a); 40 CFR 51.1303; Additional Air Quality Designations for the 2015 Ozone National Ambient Air Quality Standards, 83 FR 25776 (June 4, 2018, effective August 3, 2018).

[25] *See North Carolina* v. *EPA,* 531 F.3d 896, 910–11 (D.C. Cir. 2008) (holding that EPA must give ''independent significance'' to each prong of CAA section 110(a)(2)(D)(i)(I)).

[26] *See* 81 FR 74504 (October 26, 2016). This same concept, relying on both current monitoring data and modeling to define nonattainment receptor, was also applied in CAIR. *See* 70 FR at 25241, 25249 (January 14, 2005); *see also North Carolina,* 531 F.3d at 913–14 (affirming as reasonable EPA's approach to defining nonattainment in CAIR).

defining interference with maintenance, consistent with the method used in CSAPR and upheld by the D.C. Circuit in *EME Homer City Generation, L.P.* v. *EPA,* 795 F.3d 118, 136 (D.C. Cir. 2015).[27] Specifically, EPA identified maintenance receptors as those receptors that would have difficulty maintaining the relevant NAAQS in a scenario that takes into account historical variability in air quality at that receptor. The variability in air quality was determined by evaluating the ''maximum'' future design value at each receptor based on a projection of the maximum measured design value over the relevant period. EPA interprets the projected maximum future design value to be a potential future air quality outcome consistent with the meteorology that yielded maximum measured concentrations in the ambient data set analyzed for that receptor (*i.e.,* ozone conducive meteorology). EPA also recognizes that previously experienced meteorological conditions (*e.g.,* dominant wind direction, temperatures, air mass patterns) promoting ozone formation that led to maximum concentrations in the measured data may reoccur in the future. The maximum design value gives a reasonable projection of future air quality at the receptor under a scenario in which such conditions do, in fact, reoccur. The projected maximum design value is used to identify upwind emissions that, under those circumstances, could interfere with the downwind area's ability to maintain the NAAQS.

Recognizing that nonattainment receptors are also, by definition, maintenance receptors, the EPA often uses the term ''maintenance-only'' to refer to those receptors that are not nonattainment receptors. Consistent with the concepts for maintenance receptors, as described above, the EPA identifies ''maintenance-only'' receptors as those monitoring sites that have projected average design values above the level of the applicable NAAQS, but that are not currently measuring nonattainment based on the most recent official design values. In addition, those monitoring sites with projected average design values below the NAAQS, but with projected maximum design values above the NAAQS are also identified as ''maintenance-only'' receptors, even if they are currently measuring nonattainment based on the most recent official design values.

[27] *See* 76 FR 48208 (August 8, 2011). The CSAPR Update and Revised CSAPR Update also used this approach. *See* 81 FR 74504 (October 26, 2016) and 86 FR 23054 (April 30, 2021).

3. Step 2 of the 4-Step Interstate Transport Framework

In Step 2, EPA quantifies the contribution of each upwind state to each receptor in the 2023 analytic year. The contribution metric used in Step 2 is defined as the average impact from each state to each receptor on the days with the highest ozone concentrations at the receptor based on the 2023 modeling. If a state's contribution value does not equal or exceed the threshold of 1 percent of the NAAQS (*i.e.,* 0.70 ppb for the 2015 8-hour ozone NAAQS), the upwind state is not ''linked'' to a downwind air quality problem, and EPA, therefore, concludes that the state does not significantly contribute to nonattainment or interfere with maintenance of the NAAQS in the downwind states. However, if a state's contribution equals or exceeds the 1 percent threshold, the state's emissions are further evaluated in Step 3, considering both air quality and cost as part of a multi-factor analysis, to determine what, if any, emissions might be deemed ''significant'' and, thus, must be eliminated under CAA section 110(a)(2)(D)(i)(I).

EPA is proposing to rely in the first instance on the 1 percent threshold for the purpose of evaluating a state's contribution to nonattainment or maintenance of the 2015 8-hour ozone NAAQS (*i.e.,* 0.70 ppb) at downwind receptors. This is consistent with the Step 2 approach that EPA applied in CSAPR for the 1997 ozone NAAQS, which has subsequently been applied in the CSAPR Update when evaluating interstate transport obligations for the 2008 ozone NAAQS. EPA continues to find 1 percent to be an appropriate threshold. For ozone, as EPA found in the CAIR, CSAPR, and CSAPR Update, a portion of the nonattainment problems from anthropogenic sources in the U.S. result from the combined impact of relatively small contributions from many upwind states, along with contributions from in-state sources and, in some cases, substantially larger contributions from a subset of particular upwind states. EPA's analysis shows that much of the ozone transport problem being analyzed in this proposed rule is still the result of the collective impacts of contributions from many upwind states. Therefore, application of a consistent contribution threshold is necessary to identify those upwind states that should have responsibility for addressing their contribution to the downwind nonattainment and maintenance problems to which they collectively contribute. Continuing to use 1 percent of the NAAQS as the screening metric to evaluate collective contribution from many upwind states also allows EPA (and states) to apply a consistent framework to evaluate interstate emissions transport under the interstate transport provision from one NAAQS to the next. *See* 81 FR at 74518; *see also* 86 FR at 23085 (reviewing and explaining rationale from CSAPR, 76 FR at 48237–38, for selection of 1 percent threshold).

(a) EPA's Experience With Alternative Step 2 Thresholds

EPA's August 2018 memorandum recognized that in certain circumstances, a state may be able to establish that an alternative contribution threshold of 1 ppb is justifiable. Where a state relies on this alternative threshold, and where that state determined that it was not linked at Step 2 using the alternative threshold, EPA will evaluate whether the state provided a technically sound assessment of the appropriateness of using this alternative threshold based on the facts and circumstances underlying its application in the particular SIP submission.

EPA here shares further evaluation of its experience since the issuance of the August 2018 memorandum regarding use of alternative thresholds at Step 2. This experience leads the Agency to now believe it may not be appropriate to continue to attempt to recognize alternative contribution thresholds at Step 2. The August 2018 memorandum stated that ''it may be reasonable and appropriate'' for states to rely on an alternative threshold of 1 ppb threshold at Step 2.[28] (The memorandum also indicated that any higher alternative threshold, such as 2 ppb, would likely not be appropriate.) However, EPA also provided that ''air agencies should consider whether the recommendations in this guidance are appropriate for each situation.'' Following receipt and review of 49 good neighbor SIP submittals for the 2015 8-hour ozone NAAQS, EPA's experience has been that nearly every state that attempted to rely on a 1 ppb threshold did not provide sufficient information and analysis to support a determination that an alternative threshold was reasonable or appropriate for that state.

For instance, in nearly all submittals, the states did not provide EPA with analysis specific to their state or the receptors to which its emissions are potentially linked. In one case, the proposed approval of Iowa's SIP submittal, EPA expended its own

[28] *See* August 2018 memorandum at 4.

resources to attempt to supplement the information submitted by the state, in order to more thoroughly evaluate the state-specific circumstances that could support approval.[29] It was at EPA's sole discretion to perform this analysis in support of the state's submittal, and the Agency is not obligated to conduct supplemental analysis to fill the gaps whenever it believes a state's analysis is insufficient. The Agency no longer intends to undertake supplemental analysis of SIP submittals with respect to alternative thresholds at Step 2 for purposes of the 2015 8-hour ozone NAAQS.

Furthermore, EPA's experience since 2018 is that allowing for alternative Step 2 thresholds may be impractical or otherwise inadvisable for a number of additional policy reasons. For a regional air pollutant such as ozone, consistency in requirements and expectations across all states is essential. Based on its review of submittals to-date and after further consideration of the policy implications of attempting to recognize an alternative Step 2 threshold for certain states, the Agency now believes the attempted use of different thresholds at Step 2 with respect to the 2015 8-hour ozone NAAQS raises substantial policy consistency and practical implementation concerns.[30] The availability of different thresholds at Step 2 has the potential to result in inconsistent application of good neighbor obligations based solely on the strength of a state's implementation plan submittal at Step 2 of the 4-step interstate transport framework. From the perspective of ensuring effective regional implementation of good neighbor obligations, the more important analysis is the evaluation of the emissions reductions needed, if any, to address a state's significant contribution after consideration of a multifactor analysis at Step 3, including a detailed evaluation that considers air quality factors and cost. Where alternative thresholds for purposes of Step 2 may be ''similar'' in terms of capturing the relative amount of upwind contribution (as described in the August 2018 memorandum), nonetheless, use of an alternative threshold would allow certain states to avoid further evaluation of potential emission controls while other states must proceed to a Step 3 analysis. This can create significant equity and consistency problems among states.

Further, it is not clear that national ozone transport policy is best served by allowing for less stringent thresholds at Step 2. EPA recognized in the August 2018 memorandum that there was some similarity in the amount of total upwind contribution captured (on a nationwide basis) between 1 percent and 1 ppb. However, EPA notes that while this may be true in some sense, that is hardly a compelling basis to move to a 1 ppb threshold. Indeed, the 1 ppb threshold has the disadvantage of losing a certain amount of total upwind contribution for further evaluation at Step 3 (*e.g.,* roughly 7 percent of total upwind state contribution was lost according to the modeling underlying the August 2018 memorandum; [31] in EPA's updated modeling, the amount lost is 5 percent). Considering the core statutory objective of ensuring elimination of all significant contribution to nonattainment or interference of the NAAQS in other states and the broad, regional nature of the collective contribution problem with respect to ozone, there does not appear to be a compelling policy imperative in allowing some states to use a 1 ppb threshold while others rely on a 1 percent of the NAAQS threshold.

Consistency with past interstate transport actions such as CSAPR, and the CSAPR Update and Revised CSAPR Update rulemakings (which used a Step 2 threshold of 1 percent of the NAAQS for two less stringent ozone NAAQS), is also important. Continuing to use a 1 percent of NAAQS approach ensures that as the NAAQS are revised and made more stringent, an appropriate increase in stringency at Step 2 occurs, so as to ensure an appropriately larger amount of total upwind-state contribution is captured for purposes of fully addressing interstate transport. *See* 76 FR 48208, 48237–38 (August 8, 2011).

Therefore, notwithstanding the August 2018 memorandum's recognition of the potential viability of alternative Step 2 thresholds, and in particular, a potentially applicable 1 ppb threshold, EPA's experience since the issuance of that memorandum has revealed substantial programmatic and policy difficulties in attempting to implement this approach. Nonetheless, EPA is not at this time rescinding the August 2018 memorandum. As discussed further below, the basis for disapproval of Alabama, Mississippi, and Tennessee's SIP submissions with respect to the Step 2 analysis is, in the Agency's view, warranted even under the terms of the August 2018 memorandum. EPA invites comment on this broader discussion of issues associated with alternative thresholds at Step 2. Depending on comment and further evaluation of this issue, EPA may determine to rescind the August 2018 memorandum in the future.

4. Step 3 of the 4-Step Interstate Transport Framework

Consistent with EPA's longstanding approach to eliminating significant contribution or interference with maintenance, at Step 3, states linked at Steps 1 and 2 are generally expected to prepare a multifactor assessment of potential emissions controls. EPA's analysis at Step 3 in prior Federal actions addressing interstate transport requirements has primarily focused on an evaluation of cost-effectiveness of potential emissions controls (on a marginal cost-per-ton basis), the total emissions reductions that may be achieved by requiring such controls (if applied across all linked upwind states), and an evaluation of the air quality impacts such emissions reductions would have on the downwind receptors to which a state is linked; other factors may potentially be relevant if adequately supported. In general, where EPA's or alternative air quality and contribution modeling establishes that a state is linked at Steps 1 and 2, it will be insufficient at Step 3 for a state merely to point to its existing rules requiring control measures as a basis for approval. In general, the emissions-reducing effects of all existing emissions control requirements are already reflected in the air quality results of the modeling for Steps 1 and 2. If the state is shown to still be linked to one or more downwind receptor(s), states must provide a well-documented evaluation determining whether their emissions constitute significant contribution or interference with maintenance by evaluating additional available control opportunities by preparing a multifactor assessment. While EPA has not prescribed a particular method for this assessment, EPA expects states at a minimum to present a sufficient technical evaluation. This would typically include information on emissions sources, applicable control technologies, emissions reductions, costs, cost effectiveness, and downwind air quality impacts of the estimated reductions, before concluding that no

[29] Air Plan Approval; Iowa; Infrastructure State Implementation Plan Requirements for the 2015 Ozone National Ambient Air Quality Standard, 85 FR 12232 (March 2, 2020). The Agency received adverse comment on this proposed approval and has not taken final action with respect to this proposal.

[30] EPA notes that Congress has placed on EPA a general obligation to ensure the requirements of the CAA are implemented consistently across states and regions. *See* CAA section 301(a)(2). Where the management and regulation of interstate pollution levels spanning many states is at stake, consistency in application of CAA requirements is paramount.

[31] *See* August 2018 memorandum at 4.

additional emissions controls should be required.[32]

5. Step 4 of the 4-Step Interstate Transport Framework

At Step 4, states (or EPA) develop permanent and federally enforceable control strategies to achieve the emissions reductions determined to be necessary at Step 3 to eliminate significant contribution to nonattainment or interference with maintenance of the NAAQS. For a state linked at Steps 1 and 2 to rely on an emissions control measure at Step 3 to address its interstate transport obligations, that measure must be included in the state's implementation plan so that it is permanent and federally enforceable. *See* CAA section 110(a)(2)(D) (''Each such [SIP] shall . . . contain adequate provisions . . . . .''). *See also* CAA section 110(a)(2)(A); *Committee for a Better Arvin* v. *EPA,* 786 F.3d 1169, 1175–76 (9th Cir. 2015) (holding that measures relied on by a state to meet CAA requirements must be included in the SIP).

II. SIP Submissions and EPA's Evaluation

A. Alabama

The following section provides information related to Alabama's SIP submission addressing interstate transport requirements for the 2015 8-hour ozone NAAQS, and EPA's analysis of Alabama's submission.

1. Summary of Alabama's 2015 Ozone Interstate Transport SIP Submission

On August 20, 2018,[33] Alabama submitted a SIP revision addressing the CAA section 110(a)(2)(D)(i)(I) good neighbor interstate transport requirements for the 2015 8-hour ozone NAAQS.[34] The SIP submission provided Alabama's analysis of its impact to downwind states and concluded that emissions from the State will not significantly contribute to nonattainment or interfere with maintenance of the 2015 8-hour ozone NAAQS in other states, based on modeling results included in EPA's March 2018 memorandum. Alabama's submission relied on the results of EPA's modeling of 2023 using a 2011 base year, as contained in the March 2018 memorandum (which the State attached to its submittal), to identify downwind nonattainment and maintenance receptors that may be impacted by emissions from sources in the State at Step 1 of the 4-step framework.[35]

Alabama Department of Environmental Management (ADEM) reviewed this modeling, concurred with the results, and determined that the future year projections were appropriate for the purposes of evaluating Alabama's impact on nonattainment and maintenance receptors in other states at Step 1. Alabama used this information to find that emissions from Alabama would not contribute above 1 percent of the NAAQS at any projected nonattainment or maintenance receptors at Step 2 of the 4-step framework (using EPA's approach to defining such receptors).

Alabama's August 20, 2018, submittal also identified existing SIP-approved regulations and Federal programs [36] that ADEM noted regulate ozone-precursor emissions from sources in the State, including CSAPR trading programs.[37] Alabama's submission acknowledges that CSAPR does not address interstate transport for the 2015 ozone standard but does provide residual NO_X emissions reductions and notes the adoption of CSAPR NO_X ozone season trading programs into the Alabama SIP on August 31, 2016, and October 6, 2017.[38] Alabama notes that the implementation of the existing SIP-approved regulations and Federal programs provide for a decline in ozone precursors emissions in the State. Alabama also stated that ozone-precursor emissions would continue to decline in the State.

Based on the information from Alabama's transport SIP, ADEM concluded that emissions from Alabama sources will not significantly contribute to nonattainment or interfere with maintenance of the 2015 8-hour ozone NAAQS in any other state.

2. Prior Notices Related to Alabama's SIP Submission

Previously, EPA proposed approval of Alabama's interstate transport provisions for the 2015 8-hour ozone NAAQS as addressed in Alabama's August 20, 2018 SIP submission and based on the contribution modeling provided in the March 2018 memorandum. *See* 84 FR 71854 (December 30, 2019). When EPA completed updated modeling of 2023 in 2020 using a 2016-based emissions modeling platform (2016v1), it became evident that Alabama was projected to be linked to downwind nonattainment and maintenance receptors (see footnote 40 below). As a result, EPA deferred acting on Alabama's SIP submittal when it published a supplemental proposal in 2021 to approve four other southeastern states' good neighbor SIP submissions using the updated 2023 modeling. *See* 86 FR 37942, 37943 (July 19, 2021). The updated 2023 modeling using an updated 2016-based emissions modeling platform (2016v2) confirms the prior 2016-based modeling of 2023 in that it continues to show Alabama is linked to at least one downwind nonattainment or maintenance receptor. Based on this updated modeling using the 2016-based emissions modeling platform, discussed in section I.C above, EPA is now withdrawing its 2019 proposed approval on Alabama's September 13, 2018, interstate transport SIP as published on December 30, 2019, at 84 FR 71854.

3. EPA's Evaluation of Alabama's 2015 Ozone Interstate Transport SIP Submission

EPA is proposing to find that Alabama's August 20, 2018, SIP submission does not meet Alabama's obligations with respect to prohibiting emissions that contribute significantly

[32] As examples of general approaches for how such an analysis could be conducted for their sources, states could look to the CSAPR Update, 81 FR 74504, 74539–51; CSAPR, 76 FR 48208, 48246–63; CAIR, 70 FR 25162, 25195–229; or the NO_X SIP Call, 63 FR 57356, 57399–405. *See also* Revised CSAPR Update, 86 FR 23054, 23086–23116. Consistently across these rulemakings, EPA has developed emissions inventories, analyzed different levels of control stringency at different cost thresholds, and assessed resulting downwind air quality improvements.

[33] The August 20, 2018, SIP submission provided by ADEM was received by EPA on August 27, 2018.

[34] On August 20, 2018, Alabama submitted multiple SIP revisions under one cover letter. EPA is only acting on Alabama's 2015 ozone good neighbor interstate transport SIP requirements in this notice.

[35] EPA notes that Alabama's SIP submission is not organized around EPA's 4-step framework for assessing good neighbor obligations, but EPA summarizes the submission using that framework for clarity here.

[36] Alabama's submission cites the following SIP approved regulations: Administrative Code Rule 335–3–6, ''Control of Organic Emissions'', 335–3–8, ''Control of Nitrogen Oxides Emissions'', 335–3–14–.01, ''General Provisions'', 335–3–14–.02, ''Permit Procedures'', 335–3–14–.03, ''Standards for Granting Permits'', 335–3–14– .04, ''Air Permits Authorizing Construction in in Clean Air Areas [Prevention of Significant Deterioration Permitting (PSD)]'' and 335–3–14–.05, ''Air Permits Authorizing Construction in or Near Nonattainment Areas.'' Alabama's Submission cites the following Federal Rules: EPA's Tier 1 and 2 mobile source rules, EPA's nonroad Diesel Rule, EPA's 2007 Heavy-duty Highway Rule, New Source Performance Standards, National Emission Standards for Hazardous Air Pollutants, and CSAPR.

[37] Alabama's SIP references CSAPR, which covers the NO_X ozone season trading program established in EPA's 2011 CSAPR, 76 FR 48208 (August 8, 2011). In addition, Alabama's submittal includes a reference to the SIP-approved rules that adopted the CSAPR Update, 81 FR 74504 (October 26, 2016). *See* 82 FR 46674 (October 6, 2017).

[38] *See* 81 FR 59869 (August 31, 2016), 82 FR 46674 (October 6, 2017) (adopting Alabama Administrative Code Rule 335–3–8, ''Control of Nitrogen Oxides Emissions'' and adopting revisions to Rule 335–3–8 into the SIP).

to nonattainment or interfere with maintenance of the 2015 8-hour ozone NAAQS in any other state based on EPA's evaluation of the SIP submission using the 4-step interstate transport framework, and EPA is therefore proposing to disapprove Alabama's SIP submission.

(a) Results of EPA's Step 1 and Step 2 Modeling and Findings for Alabama

As described in section I, EPA performed updated air quality modeling to project design values and contributions for 2023. These data were examined to determine if Alabama contributes at or above the threshold of 1 percent of the 2015 8-hour ozone NAAQS (0.70 ppb) to any downwind nonattainment or maintenance receptor. As shown in Table 1, the data [39] indicate that in 2023, emissions from Alabama contribute greater than 1 percent of the standard to a nonattainment receptor in Harris County, Texas (ID#: 482010055) and a maintenance-only receptor in Denton County, Texas (ID#: 481210034).[40]

TABLE 1—ALABAMA LINKAGE RESULTS BASED ON EPA UPDATED 2023 MODELING

Receptor ID	Location	Nonattainment/maintenance	2023 Average design value (ppb)	2023 Maximum design value (ppb)	Alabama contribution (ppb)
482010055	Harris County, Texas	Nonattainment	71.0	72.0	0.88
481210034	Denton County, Texas	Maintenance	70.4	72.2	0.71

(b) Evaluation of Information Provided by Alabama Regarding Step 1

At Step 1 of the 4-step interstate transport framework, Alabama relied on EPA modeling included in the March 2018 memorandum to identify nonattainment and maintenance receptors in 2023. As described in section II.A.3.a, EPA has recently updated this modeling using the most current and technically appropriate information. EPA proposes to rely on EPA's most recent modeling to identify nonattainment and maintenance receptors in 2023. That information establishes that there are two receptors to which Alabama is projected to be linked in 2023.

(c) Evaluation of Information Provided by Alabama Regarding Step 2

At Step 2 of the 4-step interstate transport framework, Alabama relied on EPA modeling released in the March 2018 memorandum to identify upwind state linkages to nonattainment and maintenance receptors in 2023. As described in section I.C of this notice, EPA has recently updated modeling to identify upwind state contributions to nonattainment and maintenance receptors in 2023. In this action, EPA proposes to rely on the Agency's most recently available modeling to identify upwind contributions and ''linkages'' to downwind air quality problems in 2023 using a threshold of 1 percent of the NAAQS. *See* section I.D for a general explanation of the use of 1 percent of the NAAQS.

As shown in Table 1, updated EPA modeling identifies Alabama's maximum contribution to downwind nonattainment and maintenance receptors as greater than 1 percent of the standard (*i.e.,* 0.70 ppb). Therefore, the State is linked to a downwind air quality problem at Steps 1 and 2. Because the entire technical basis for Alabama's interstate transport SIP submission is that Alabama is not linked at Step 2, and thus Alabama's SIP contains the necessary provisions to eliminate emissions that will contribute significantly to nonattainment or interfere with maintenance of the 2015 8-hour ozone NAAQS in any other state, EPA proposes to disapprove Alabama's SIP submission based on EPA's finding that such a linkage does exist.[41]

Although Alabama did not rely on the 1 ppb threshold in its SIP submittal, EPA recognizes that the most recently available EPA modeling at the time Alabama submitted its SIP submittal indicated that Alabama did not contribute above 1 percent of the NAAQS to a projected downwind nonattainment or maintenance receptor. Therefore, Alabama may not have considered analyzing the reasonableness and appropriateness of a 1 ppb threshold at Step 2 of the 4-step interstate transport framework per the August 2018 memorandum. However, EPA's August 2018 memorandum provided that whether use of a 1 ppb threshold is appropriate must be based on an evaluation of state-specific circumstances, and no such evaluation was included in the submittal. EPA's experience with the alternative Step 2 thresholds is further discussed in section I.D.3.a. As discussed there, EPA is considering withdrawing the August 2018 memorandum.

(d) Evaluation of Information Provided by Alabama Regarding Step 3

At Step 3 of the 4-step interstate transport framework, a state's emissions are further evaluated, in light of multiple factors, including air quality and cost considerations, to determine what, if any, emissions significantly contribute to nonattainment or interfere with maintenance and, thus, must be eliminated under CAA section 110(a)(2)(D)(i)(I).

To effectively evaluate which emissions in the state should be deemed ''significant'' and therefore prohibited, states generally should prepare an accounting of sources and other emissions activity for relevant pollutants and assess potential, additional emissions reduction opportunities and resulting downwind air quality improvements. EPA has consistently applied this general approach (*i.e.,* Step 3 of the 4-step interstate transport framework) when identifying emissions contributions that the Agency has determined to be ''significant'' (or interfere with maintenance) in each of its prior Federal, regional ozone transport rulemakings, and this interpretation of the statute has been upheld by the Supreme Court. *See EME Homer City,*

[39] The ozone design values and contributions at individual monitoring sites nationwide are provided in the file ''2016v2_DVs_state_contributions.xlsx'' which is included in Docket No. EPA–HQ–OAR–2021–0663.

[40] These modeling results are consistent with the results of a prior round of 2023 modeling using the 2016v1 emissions platform which became available to the public in the fall of 2020 in the Revised CSAPR Update, as noted in section I. That modeling showed that Alabama had a maximum contribution greater than 0.70 ppb to at least one nonattainment or maintenance-only receptor in 2023. These modeling results are included in the file ''Ozone Design Values And Contributions Revised CSAPR Update.xlsx'' in Docket No. EPA–HQ–OAR–2021–0663.

[41] To the extent that Alabama's submittal included information regarding emissions controls that could be interpreted as relevant to a step 3 analysis, EPA evaluates that information in section II.A.3.d.

572 U.S. 489, 519 (2014). While EPA has not directed states that they must conduct a Step 3 analysis in precisely the manner EPA has done in its prior regional transport rulemakings, state implementation plans addressing the obligations in CAA section 110(a)(2)(D)(i)(I) must prohibit ''any source or other type of emissions activity within the State'' from emitting air pollutants which will contribute significantly to downwind air quality problems. Thus, states must complete something similar to EPA's analysis (or an alternative approach to defining ''significance'' that comports with the statute's objectives) to determine whether and to what degree emissions from a state should be ''prohibited'' to eliminate emissions that will ''contribute significantly to nonattainment in or interfere with maintenance of'' the NAAQS in any other state. Alabama did not conduct such an analysis in its SIP submission.

Based on Alabama's finding that emissions from Alabama do not contribute above 1 percent of the NAAQS at any monitors that are projected to be in nonattainment or maintenance, the SIP submission identified SIP-approved provisions and Federal programs in the context that no further emissions reductions were necessary, and determined that the SIP contained adequate provisions to prohibit emissions that will significantly contribute to nonattainment or interfere with maintenance of the 2015 8-hour ozone NAAQS in any other state. However, the State did not analyze total ozone precursors that continue to be emitted from sources and other emissions activity within the State, evaluate the emissions reduction potential of any additional controls using cost or other metrics, nor evaluate any resulting downwind air quality improvements that could result from such controls.

Among the Federal programs referenced in Alabama's submission was the NO_X ozone season trading program of CSAPR for the 2008 ozone standard, which ADEM adopted into the Alabama SIP.[42] This reference suggests that Alabama may have intended to rely on its electric generating units (EGUs) being subject to CSAPR Update (which reflected a stringency at the nominal marginal cost threshold of $1,400/ton (in 2011 dollars) for the 2008 8-hour ozone NAAQS) to argue that it has already implemented all cost-effective emissions reductions at EGUs.

EPA does not support the concept that reliance on CSAPR Update is appropriate to conclude that no further emissions reductions are necessary under Step 3 for the 2015 8-hour ozone NAAQS. First, CSAPR Update did not regulate non-electric generating units (non-EGUs), and thus this analysis, even for the 2008 ozone NAAQS, was incomplete, and EPA acknowledged at the time that CSAPR Update was not a full remedy for interstate transport under that NAAQS. *See Wisconsin,* 938 F.3d at 318–20. Second, relying on CSAPR Update's (or any other CAA program's) determination of cost-effectiveness without further Step 3 analysis is not approvable. Cost-effectiveness must be assessed in the context of the specific CAA program; assessing cost-effectiveness in the context of ozone transport should reflect a more comprehensive evaluation of the nature of the interstate transport problem, the total emissions reductions available at several cost thresholds, and the air quality impacts of the reductions at downwind receptors. While EPA has not established a benchmark cost-effectiveness value for 2015 8-hour ozone NAAQS interstate transport obligations, it is reasonable to expect control measures or strategies to address interstate transport under this NAAQS to reflect higher marginal control costs because the 2015 8-hour ozone NAAQS is a more stringent and more protective air quality standard. As such, the marginal cost threshold of $1,400/ton for the CSAPR Update (which addresses the 2008 ozone 8-hour NAAQS and is in 2011 dollars) is not an appropriate cost threshold and cannot be approved as a benchmark to use for interstate transport SIP submissions for the 2015 8-hour ozone NAAQS. In addition, the updated EPA modeling captures all existing CSAPR trading programs in the baseline, and that modeling confirms that these control programs were not sufficient to eliminate the Alabama's linkage at Steps 1 and 2 under the 2015 8-hour ozone NAAQS even if the CSAPR Update provisions had been adopted into Alabama's SIP. The State was therefore obligated at Step 3 to assess *additional* control measures using a multifactor analysis.

As mentioned above, EPA has newly available information that indicates sources in Alabama are linked to downwind air quality problems for the 2015 ozone standard. Therefore, EPA proposes to disapprove Alabama's August 20, 2018, interstate transport SIP submission on the separate, additional basis that the SIP submittal did not assess additional emissions control opportunities.

(e) Evaluation of Information Provided by Alabama Regarding Step 4

Step 4 of the 4-step interstate transport framework calls for development of permanent and federally enforceable control strategies to achieve the emissions reductions determined to be necessary at Step 3 to eliminate significant contribution to nonattainment or interference with maintenance of the NAAQS. As mentioned in section II.A.3.d, Alabama's SIP submission did not contain an evaluation of additional emissions control opportunities (or establish that no additional controls are required), thus, no information was provided at Step 4. As a result, EPA proposes to disapprove Alabama's August 20, 2018, submittal on the separate, additional basis that the State has not developed permanent and enforceable emissions reductions necessary to meet the obligations of CAA section 110(a)(2)(d)(i)(I).

4. Conclusion for Alabama

Based on EPA's evaluation of Alabama's SIP submission and after consideration of updated EPA modeling using the 2016-based emissions modeling platform, EPA is proposing to find that the 2015 8-hour ozone NAAQS good neighbor interstate transport portion of Alabama's August 20, 2018, SIP submission addressing CAA section 110(a)(2)(D)(i)(I) does not meet the State's interstate transport obligations because it fails to contain the necessary provisions to eliminate emissions that will contribute significantly to nonattainment or interfere with maintenance of the 2015 8-hour ozone NAAQS in any other state.

B. Mississippi

The following section provides information related to Mississippi's SIP submission addressing interstate transport requirements for the 2015 8-hour ozone NAAQS, and EPA's analysis of Mississippi's submission.

1. Summary of Mississippi's 2015 Ozone Interstate Transport SIP Submission

On September 3, 2019, the Mississippi Department of Environmental Quality (MDEQ) submitted a SIP revision addressing the CAA section 110(a)(2)(D)(i)(I) interstate transport requirements for the 2015 8-hour ozone NAAQS.[43] The SIP

[42] *See* 81 FR 59869 (August 31, 2016), 82 FR 46674 (October 6, 2017) (adopting Alabama Administrative Code Rule 335–3–8, ''Control of Nitrogen Oxides Emissions'' and adopting revisions to Rule 335–3–8 into the SIP).

[43] The September 3, 2019, SIP submission provided by MDEQ was received by EPA on September 6, 2019.

submission provided Mississippi's analysis of its impact to downwind states and concluded that emissions from the State will not significantly contribute to nonattainment or interfere with maintenance of the 2015 8-hour ozone NAAQS in other states.

MDEQ's submission relied on the results of EPA's modeling for the 2015 8-hour ozone NAAQS, contained in the March 2018 memorandum, to identify projected downwind nonattainment and maintenance receptors and contribution linkages in 2023 that may be impacted by emissions from sources in Mississippi at Steps 1 and 2 of the 4-step interstate transport framework,[44] respectively. MDEQ reviewed EPA's March 2018 modeling and found that the modeled contributions for Mississippi were below 1 percent of the NAAQS for all nonattainment and maintenance receptors, except the Deer Park nonattainment receptor in Harris County, Texas (Monitor ID: 482011039). The SIP submission identified Mississippi as linked to the Deer Park receptor with an upwind contribution of 0.79 ppb.

In its submittal, MDEQ discussed EPA's August 2018 memorandum, explaining that 0.79 ppb is 1.12 percent of the 2015 8-hour ozone NAAQS, which is greater than the 1 percent contribution threshold of 0.70 ppb but less than a 1 ppb alternative contribution threshold. The SIP submission also states that the Deer Park receptor design value was projected to be greater than the 2015 ozone standard in 2023, but that the actual 2015–2017 design value was below the NAAQS at 68 ppb. Based on the modeling in the March 2018 memo, along with application of a 1 ppb alternative contribution threshold and information regarding 2015–2017 monitored values at the Deer Park receptor, MDEQ concluded that sources in Mississippi were not linked to downwind nonattainment or maintenance receptors at Step 2, and therefore, the State does not significantly contribute to nonattainment in another state for the 2015 ozone standard. Further, MDEQ stated that the SIP contains adequate provisions to prohibit sources and other types of emissions activities within the State from contributing to nonattainment in another state with respect to the 2015 8-hour ozone NAAQS.

In its submission, MDEQ treated the Deer Park receptor as a maintenance receptor because the most recent measured design value at the time of its submission (*i.e.,* the 2017 design value of 68 ppb) was below the level of the NAAQS at this monitor. Based on MDEQ's interpretation of EPA's October 19, 2018, memorandum, the State eliminated the Deer Park monitor site in Harris County, Texas, as a maintenance receptor in 2023 (although EPA's modeling of 2023 released with the October 2017 memorandum had identified this monitoring site as a nonattainment receptor).

To support eliminating the Deer Park monitor as a receptor, MDEQ's demonstration included: (1) Evaluating ozone season temperatures in the period 2014–2017 in Harris County to determine if conditions were conducive for ozone formation; (2) assessing monitored ozone design values from 2011–2017 at the Deer Park monitor; and (3) reviewing ozone precursor emission trends in the Houston Area, Texas (statewide), and Mississippi (statewide). In its demonstration, MDEQ stated that temperatures in 2015 and 2016 were above average, and in 2014 and 2017 temperatures were near normal. Based on this information, MDEQ concluded that conditions were conducive to ozone formation during this three-year time period (*i.e.,* 2015 to 2017). MDEQ's submission also states that design values from 2011 to 2017 at the Deer Park receptor showed a downward trend and that design values have been meeting the 2015 8-hour ozone NAAQS since 2015. Further, according to the submittal, ozone precursor emissions in Texas and Mississippi both showed a downward trend based on data from 2008, 2011, and 2014. Based on the downward trend in emissions and the fact that the Deer Park monitor was measuring attainment in 2015, 2016, and 2017, MDEQ determined that the Deer Park receptor should be eliminated as a maintenance receptor. Thus, based on the elimination of the Deer Park receptor, along with application of a 1 ppb threshold, Mississippi concluded that the State did not significantly interfere with maintenance (prong 2) in another state for the 2015 ozone standard.

In summary, MDEQ concluded that sources in the State do not significantly contribute to nonattainment or interfere with maintenance in another state, that no further emission reductions were necessary, and that Mississippi's SIP contains adequate provisions to prevent sources and other types of emissions activities within the State from contributing significantly to nonattainment or interfering with maintenance in another state with respect to the 2015 8-hour ozone NAAQS.

2. EPA's Evaluation of Mississippi's 2015 Ozone Interstate Transport SIP Submission

EPA is proposing to find that Mississippi's September 3, 2019, SIP submission does not meet Mississippi's obligations with respect to prohibiting emissions that contribute significantly to nonattainment or interfere with maintenance of the 2015 8-hour ozone NAAQS in any other state based on EPA's evaluation of the SIP submission using the 4-step interstate transport framework, and EPA is therefore proposing to disapprove Mississippi's submission.

(a) Evaluation of Information Provided by Mississippi Regarding Step 1

At Step 1 of the 4-step interstate transport framework, MDEQ relied on EPA modeling released in the March 2018 memorandum to identify nonattainment and maintenance receptors in 2023.

In its submittal, MDEQ attempted to utilize the October 2018 memorandum along with 2014 to 2017 ozone design values (the most recent data available at the time of submittal) to eliminate the Deer Park receptor in Harris County, Texas (Monitor ID: 482011039) as a maintenance receptor. Table 2 of the submittal correctly indicates that this monitoring site was a projected nonattainment receptor, not a maintenance-only receptor, in 2023 based on the EPA's modeling data included in the March 2018 memorandum. However, in its submittal, the State relied on the 2014 to 2017 design values at the Deer Park receptor (*i.e.,* 69 ppb, 67 ppb, and 68 ppb, respectively) as the basis for stating that this receptor met EPA's definition of a maintenance receptor. Based on this information, the State applied an alternative definition of a maintenance receptor utilizing the potential concepts included in the October 2018 memorandum. This memorandum included a description of the approach that EPA has historically used to identify maintenance-only receptors [45] and identified potential alternate ways to define maintenance receptors based on certain criteria suggested in the memorandum including an evaluation of meteorology conductive to ozone formation, review of ozone monitored concentrations, and precursor emissions trends.

[44] EPA notes that Mississippi's September 2, 2019, SIP submission is not organized around EPA's 4-step interstate transport framework for assessing good neighbor obligations, but EPA summarizes the submission using that framework for clarity here.

[45] *See* section I.D, above for a discussion of EPA's approach to identify maintenance receptors.

EPA recognized in the October 2018 memorandum that states could potentially, with sufficient justification, establish an approach to addressing maintenance receptors that gives independent significance to prong 2 in some manner different than EPA's approach. In addition, the October 2018 memorandum identified two potential concepts that states could use to identify maintenance receptors: (1) States may, in some cases, eliminate a site as a maintenance receptor if the site is currently measuring clean data, or (2) in some cases, use a design value from the base period that is not the maximum design value. For either of these alternative methods, to adequately consider areas struggling to meet the NAAQS, EPA also indicated that it expects states to include with their SIP demonstration technical analyses showing that the following three criteria are met:

- Meteorological conditions in the area of the monitoring site were conducive to ozone formation during the period of clean data or during the alternative base period design value used for projections; [46]
- Ozone concentrations have been trending downward at the site since 2011 (and ozone precursor emissions of NO_X and VOC have also decreased); and
- Emissions are expected to continue to decline in the upwind and downwind states out to the attainment date of the receptor.

EPA's October 2018 memorandum explained that the intent of these analyses is to demonstrate that monitoring sites that would be identified as maintenance receptors under EPA's historical approach could nonetheless be shown to be very unlikely to violate the NAAQS in the future analytic year.

However, the analysis provided by Mississippi in its submission has not met the criteria laid out in the guidance. With respect to the first criterion (meteorological conditions), MDEQ assessed ozone design values at the Deer Park site in Houston from 2014 to 2017 and anomalies (*i.e.,* difference compared to the long-term mean) of average temperatures in June, July, and August, summarized from EPA's October 2018 memorandum, to determine whether particular summers had ozone-conducive or unconducive meteorology during the period of clean data. MDEQ stated that temperatures were above average in 2015 and 2016 when the Deer Park monitor measured ozone concentrations below the 2015 8-hour ozone NAAQS and near normal in 2014 and 2017. However, MDEQ's review of meteorological conditions in the vicinity of the Deer Park monitor was limited to temperature anomalies and did not discuss or consider how other meteorological factors identified in the October 2018 memorandum (such as humidity, solar radiation, vertical mixing, and/or other meteorological indicators such as cooling-degree days) confirm whether conditions affecting the monitor may have been conducive to ozone formation in 2015 and 2016 and unconducive in 2014 and 2017.

With respect to the second criterion, MDEQ's submission included information related to ozone design values and ozone precursors. Specifically, the submission included an assessment of ozone design values at the Deer Park monitor from 2011 to 2017, which showed a downward trend in ozone concentrations. However, MDEQ's SIP submission did not include a discussion of the 2018 design value, which showed a violation of the 2015 standard at 71 ppb, even though that data was available and could have been considered in the State's analysis at the time of the submission in 2019.[47] In addition, the 2019 and 2020 design values, 75 ppb and 78 ppb, respectively, also exceeded the NAAQS. The preliminary design value for 2021 is 74 ppb.[48] Although not available at the time of the SIP submission, these more recent data suggest a continuous trend in measured ozone concentrations above the 2015 ozone standard at the Deer Park monitor. Even though MDEQ's review of ozone monitoring data may have shown a decrease in measured concentration from 2011 to 2017, EPA notes a significant increase between the 2017 and 2018 4th highest daily maximum concentration, from 68 ppb to 85 ppb. MDEQ's SIP submission did not consider the 2018 4th high daily maximum concentration as part of its trends analysis even though the information was available at the time the SIP was submitted to EPA. Thus, at the time of the submission, the Deer Park monitor had a 3-year design value of 71 ppb, which violated the 70 ppb ozone standard. Thus, under the terms of the October 2018 memorandum, Mississippi's SIP submission does not adequately establish a basis for eliminating the Deer Park monitoring site as an ozone transport receptor.

MDEQ also assessed total ozone precursor emissions data in 2008, 2011, and 2014, which MDEQ claimed indicated a decrease in ozone precursor (NO_X and VOC) emissions in the Houston metropolitan statistical area, Texas (statewide), and Mississippi (statewide). While EPA acknowledges the general downward trends in NO_X and VOC emissions, the Deer Park monitor ozone concentrations design values through 2020 show recent measured ozone concentrations that exceed the 2015 ozone standard. Further, even accounting for emissions trends, EPA's latest air quality modeling, as presented below, shows that there are now three receptors to which Mississippi contributes in 2023, not just one. Thus, the apparent downward trend in ozone precursors in Texas and Mississippi alone cannot support elimination of either the Deer Park monitor as a receptor (under the information Mississippi relied on) or the three Texas receptors to which EPA now finds Mississippi to be contributing. *See* section II.B.2.c and Table 2 below for results of EPA's 2016v2 Step 1 and Step 2 modeling and findings for Mississippi.

With respect to the third criterion, MDEQ stated that, ''[b]ased on national and regional emissions trends, and current regulations on point sources and mobile sources, emissions are expected to continue to decline in the upwind and downwind states.'' However, the State did not cite any specific regulations controlling sources of ozone precursors or mobile sources or quantify the NO_X emission reduction potential of current regulations for point and mobile sources.

Based on the reasons stated above, EPA does not believe Mississippi's SIP submission provided sufficient justification to eliminate the Deer Park monitor as a maintenance receptor.

(b) Evaluation of Information Provided by Mississippi Regarding Step 2

At Step 2 of the 4-step interstate transport framework, Mississippi relied on EPA's modeling released in the March 2018 memorandum to identify upwind state linkages to nonattainment and maintenance receptors in 2023.

[46] *See* Attachment A of EPA's October 2018 memorandum formation to assess whether particular summers had ozone-conducive or unconducive meteorology within the 10-year period 2008 through 2017. The memorandum states that meteorological conditions including temperature, humidity, winds, solar radiation, and vertical mixing affect the formation and transport of ambient ozone concentrations. The memorandum suggests generally that above average temperatures are an indication that meteorology is conducive to ozone formation and below average temperatures indicate that conditions are unconducive to ozone formation. Within a particular summer season, the degree that meteorology is conducive for ozone formation can vary from region to region and fluctuate with time within a particular region.

[47] The data are given in ''2010_thru_2020 Ozone Design Values.xlsx,'' which is included in Docket No. EPA–HQ–OAR–2021–0663.

[48] This is based on preliminary 2021 data available from the Air Quality System (AQS) as of January 3, 2022. The design values for 2021 have not been certified by state agencies.

As described in section I.C of this notice, EPA has recently updated modeling to identify upwind state contributions to nonattainment and maintenance receptors in 2023. In this proposal, EPA relies on the Agency's most recently available modeling to identify upwind contributions and ''linkages'' to downwind air quality problems in 2023 using a threshold of 1 percent of the NAAQS. *See* section I.D for general explanation of the use of 1 percent of the NAAQS. As shown in Table 2, updated EPA modeling identifies Mississippi's maximum contribution to downwind nonattainment and maintenance receptors to be greater than 1 percent of the standard (*i.e.,* 0.70 ppb). Therefore, the State is linked to a downwind air quality problem at Steps 1 and 2.

MDEQ relied on EPA's August 2018 memorandum in an attempt justify using a 1 ppb alternative contribution threshold at Step 2 as a basis to assert that Mississippi would not be ''linked'' to any projected downwind nonattainment or maintenance receptors. As discussed in EPA's August 2018 memorandum, EPA had suggested that, with appropriate additional analysis, it may be reasonable for states to use a 1 ppb contribution threshold, as an alternative to a 1 percent threshold, at Step 2 of the 4-step interstate transport framework, for the purposes of identifying linkages to downwind receptors. However, based on EPA's updated modeling, the State is projected to contribute greater than both the 1 percent and alternative 1 ppb thresholds. While EPA does not, in this action, approve of the State's application of the 1 ppb threshold, based on its linkages greater than 1 ppb to projected downwind nonattainment or maintenance receptors, the State's use of this alternative threshold at Step 2 of the 4-step interstate framework is inconsequential to EPA's proposed action on this SIP.

In addition, MDEQ's SIP does not include a technical analysis to sufficiently justify use of an alternative 1 ppb threshold at the Deer Park monitor. Echoing EPA's August 2018 memorandum, MDEQ stated that the amount of upwind collective contribution captured with the 1 percent and 1 ppb thresholds is *generally* comparable. In this memorandum, EPA also determined that by capturing a percentage of upwind state emissions comparable to the amount captured at 1 percent, the alternative threshold *may* be appropriate, indicating that a more determinative conclusion of appropriateness would require further analysis. In this regard, MDEQ did not provide any further technical justification to make that determination.

MDEQ also referred to an EPA Guidance on Significant Impact Levels for Ozone and Fine Particles in the Prevention of Significant Deterioration Permitting Program (''SILs Guidance'') as additional justification for use of a 1 ppb threshold. However, MDEQ did not provide discussion or analysis containing information specific to Mississippi or the receptors to which its emissions are potentially linked, which is necessary to thoroughly evaluate the state-specific circumstances that could support approval. In addition, the State did not explain the relevance or applicability of a SILs Guidance to which it made reference. EPA's SILs guidance relates to a different provision of the CAA regarding implementation of the prevention of significant deterioration (PSD) permitting program, *i.e.,* a program that applies in areas that have been designated attainment [49] or unclassifiable for the NAAQS, and it is not applicable to the good neighbor provision, which requires states to eliminate significant contribution or interference with maintenance of the NAAQS at known and ongoing air quality problem areas in other states.

The analytical gaps identified indicate that the submittal's use of a 1 ppb threshold for the State is not approvable. EPA's experience with the alternative Step 2 thresholds is further discussed in section I.D.3.a. As discussed there, EPA is considering withdrawing the August 2018 memorandum.

Despite the linkage EPA determines exists at Step 2, the State argued in its submittal that it should not be considered to significantly contribute to nonattainment or interfere with maintenance of the NAAQS in other states. EPA finds that conclusion is not approvable at Steps 1 or 2. Therefore, based on EPA's evaluation of the information submitted by Mississippi, and based on EPA's most recent modeling results for 2023, EPA proposes to find that Mississippi is linked at Steps 1 and 2 and has an obligation to assess potential emissions reductions from sources or other emissions activity at Step 3 of the 4-step framework.

(c) Results of EPA's 2016v2 Step 1 and Step 2 Modeling and Findings for Mississippi

As described in section I, EPA performed air quality modeling using the 2016v2 emissions platform to project design values and contributions for 2023. These data were examined to determine if Mississippi contributes at or above the threshold of 1 percent of the 2015 8-hour ozone NAAQS (0.70 ppb) to any downwind nonattainment or maintenance receptor. As shown in Table 2, the data [50] indicate that in 2023, emissions from Mississippi contribute greater than 1 percent of the standard to nonattainment or maintenance-only receptors in Denton County, Texas (Monitor ID: 481210034), Harris County, Texas (Monitor ID: 482010055), and Brazoria County, Texas (Monitor ID: 480391004).[51] Note that each of these monitors is currently measuring nonattainment based on 2020 design values of 72 ppb, 76 ppb, and 73 ppb at the Denton County, Harris County, and Brazoria County receptors, respectively.

[49] Pursuant to section 107(d) of the CAA, EPA must designate areas as either ''nonattainment,'' ''attainment,'' or ''unclassifiable.'' Historically for ozone, the EPA has designated most areas that do not meet the definition of nonattainment as ''unclassifiable/attainment.'' This category includes areas that have air quality monitoring data meeting the NAAQS and areas that do not have monitors but for which the EPA has no evidence that the areas may be violating the NAAQS or contributing to a nearby violation. In the designations for the 2015 ozone NAAQS, the EPA reversed the order of the label to be ''attainment/unclassifiable'' to better convey the definition of the designation category and so that the category is more easily distinguished from the separate unclassifiable category. An ''attainment'' designation is reserved for a previous nonattainment area that has been redesignated to attainment as a result of the EPA's approval of a CAA section 175A maintenance plan submitted by the state air agency.

[50] The ozone design values and contributions at individual monitoring sites nationwide are provided in the file ''2016v2_DVs_state_contributions.xlsx'' which is included in Docket No. EPA–HQ–OAR–2021–0663.

[51] These modeling results are consistent with the results of a prior round of 2023 modeling using a the 2016v1 emissions platform that became available to the public in the fall of 2020 in the Revised CSAPR Update, as noted in section I.

TABLE 2—MISSISSIPPI LINKAGE RESULTS BASED ON EPA UPDATED 2023 MODELING

Receptor ID	Location	Nonattainment/ maintenance	2023 average design value (ppb)	2023 maximum design value (ppb)	Mississippi contribution (ppb)
481210034	Denton County, Texas	Maintenance	70.4	72.2	1.14
482010055	Harris County, Texas	Nonattainment	71.0	72.0	1.04
480391004	Brazoria County, Texas	Maintenance	70.1	72.3	0.92

(d) Evaluation of Information Provided by Mississippi Regarding Step 3

At Step 3 of the 4-step interstate transport framework, a state's emissions are further evaluated, in light of multiple factors, including air quality and cost considerations, to determine what, if any, emissions significantly contribute to nonattainment or interfere with maintenance and, thus, must be eliminated under CAA section 110(a)(2)(D)(i)(I).

To effectively evaluate which emissions in the state should be deemed ''significant,'' and therefore prohibited, states generally should prepare an accounting of sources and other emissions activity for relevant pollutants and assess potential, additional emissions reduction opportunities and resulting downwind air quality improvements. EPA has consistently applied this general approach (*i.e.,* Step 3 of the 4-step interstate transport framework) when identifying emissions contributions that the Agency has determined to be ''significant'' (or interfere with maintenance) in each of its prior Federal, regional ozone transport rulemakings, and this interpretation of the statute has been upheld by the Supreme Court. *See EME Homer City,* 572 U.S. 489, 519 (2014). While EPA has not directed states that they must conduct a Step 3 analysis in precisely the manner EPA has done in its prior regional transport rulemakings, state implementation plans addressing the obligations in CAA section 110(a)(2)(D)(i)(I) must prohibit ''any source or other type of emissions activity within the State'' from emitting air pollutants which will contribute significantly to downwind air quality problems. Thus, states must complete something similar to the EPA's analysis (or an alternative approach to defining ''significance'' that comports with the statute's objectives) to determine whether and to what degree emissions from a state should be ''prohibited'' to eliminate emissions that will ''contribute significantly to nonattainment in or interfere with maintenance of'' the NAAQS in any other state. Mississippi did not conduct such an analysis in its SIP submission. Mississippi did not include an accounting of sources or other emissions activity in the State along with an analysis of potential NO_X emissions control technologies, their associated costs, estimated emissions reductions, and downwind air quality improvements.

EPA's evaluation of Mississippi's submittal, in conjunction with its 2016-based modeling of 2023, indicates that ozone-precursor emissions from Mississippi are linked to downwind air quality problems for the 2015 ozone standard at Steps 1 and 2. However, Mississippi's SIP submittal does not include a Step 3 analysis. EPA proposes to find that Mississippi was required to analyze emissions from the sources and other emissions activity from within the State to determine whether its contributions were significant, and EPA proposes to disapprove its submission because Mississippi's submittal failed to do so.

(e) Evaluation of Information Provided by Mississippi Regarding Step 4

Step 4 of the 4-step interstate transport framework calls for development of permanent and federally enforceable control strategies to achieve the emissions reductions determined to be necessary at Step 3 to eliminate significant contribution to nonattainment or interference with maintenance of the NAAQS. As mentioned previously, Mississippi's SIP submittal did not contain an evaluation of additional emission control opportunities (or establish that no additional controls are required), thus, no information was provided at Step 4. As a result, EPA proposes to disapprove Mississippi's submittal on the separate, additional basis that the State has not developed permanent and enforceable emissions reductions necessary to meet the obligations of CAA section 110(a)(2)(d)(i)(I).

3. Conclusion for Mississippi

Based on EPA's evaluation of Mississippi's SIP submission, EPA is proposing to find that Mississippi's September 3, 2019, SIP submission addressing CAA section 110(a)(2)(D)(i)(I) does not meet the State's interstate transport obligations because it fails to contain the necessary provisions to eliminate emissions that will contribute significantly to nonattainment or interfere with maintenance of the 2015 8-hour ozone NAAQS in any other state.

C. Tennessee

The following section provides information related to Tennessee's SIP submission addressing interstate transport requirements for the 2015 8-hour ozone NAAQS, and EPA's analysis of Tennessee's submission.

1. Summary of Tennessee's 2015 Ozone Interstate Transport SIP Submission

On September 13, 2018, Tennessee submitted a SIP revision addressing the CAA section 110(a)(2)(D)(i)(I) interstate transport requirements for the 2015 8-hour ozone NAAQS.[52] [53] The SIP submission provided Tennessee's analysis of its impact to downwind states and concluded that emissions from the State will not significantly contribute to nonattainment or interfere with maintenance of the 2015 8-hour ozone NAAQS in other states. Tennessee's submission relied on EPA's modeling results for the 2015 8-hour ozone NAAQS, contained in the March 2018 memorandum, to identify downwind nonattainment and maintenance receptors that may be impacted by emissions from sources in the State at Steps 1 and 2 of the 4-step framework.[54] The Tennessee Department of Environmental Control (TDEC) reviewed EPA's 2023 modeling, concurred with the results, and determined that EPA's future year NO_X projections were reasonable and account

[52] The September 13, 2019, SIP submission provided by TDEC was received by EPA on September 17, 2018.

[53] On September 18, 2018, Tennessee submitted multiple SIP revisions under one cover letter. EPA is only acting on Tennessee's 2015 ozone good neighbor interstate transport SIP requirements in this notice.

[54] EPA notes that Tennessee's SIP submission is not organized around EPA's 4-step framework for assessing good neighbor obligations, but EPA summarizes the submission using that framework for clarity here.

for source shutdowns, new controls, and fuel switches. TDEC summarized the State's upwind contribution to 26 nonattainment and maintenance receptors and noted Tennessee's largest impact on any potential downwind receptor in 2023 would be 0.31 ppb and 0.65 ppb, respectively. Tennessee found that—based on EPA's 2023 modeling—emissions from Tennessee do not contribute above 1 percent of the NAAQS or above 1 ppb at any monitors that are projected to be in nonattainment or maintenance.

Tennessee's September 13, 2018, SIP submittal asserted that NO_X emissions are considered the primary cause of formation of ozone in the southeast United States, and emphasized a significant reduction in NO_X emissions reductions from coal-fired EGUs and other large NO_X sources leading to improvements in air quality, including reductions attributable to previous transport rulemakings.[55] Additionally, TDEC identifies existing SIP-approved provisions, Federal regulations and programs, court settlements, and statewide source shutdowns that TDEC believes limit ozone precursor emissions in the State.[56]

Based on the information contained in Tennessee's transport SIP, TDEC concluded that Tennessee does not significantly contribute to nonattainment or interfere with maintenance in another state of the 2015 8-hour ozone NAAQS, and that the SIP provides for adequate measures to control ozone precursor emissions.

2. Prior Notices Related to Tennessee's SIP Submission

Previously, EPA proposed approval of Tennessee's interstate transport provisions for the 2015 8-hour ozone NAAQS as addressed in Tennessee's September 13, 2018, SIP submission and based on the contribution modeling provided in the March 2018 memorandum. *See* 84 FR 71854 (December 30, 2019). When EPA completed updated modeling of 2023 in 2020 using a 2016-based emissions modeling platform (2016v1), it became evident that Tennessee was projected to be linked to downwind nonattainment and maintenance receptors (see footnote 57 below). As a result, EPA deferred acting on Tennessee's SIP submittal when it published a supplemental proposal in 2021 to approve four other southeastern states' good neighbor SIP submissions, using the updated 2023 modeling. *See* 86 FR 37942, 37943 (July 19, 2021). The updated 2023 modeling presented in this proposal using an updated 2016-based emissions modeling platform (2016v2) confirms the prior 2016-based modeling of 2023 in that it continues to show Tennessee is linked to at least one downwind nonattainment or maintenance receptor. Based on this updated modeling using the 2016-based emissions modeling platform, discussed in section I.C above, EPA is now withdrawing its 2019 proposed approval on Tennessee's September 13, 2018, interstate transport SIP as published on December 30, 2019 at 84 FR 71854.

3. EPA's Evaluation of Tennessee's 2015 Ozone Interstate Transport SIP Submission

EPA is proposing to find that Tennessee's September 13, 2018, SIP submission does not meet the State's obligations with respect to prohibiting emissions that contribute significantly to nonattainment or interfere with maintenance of the 2015 8-hour ozone NAAQS in any other state based on EPA's evaluation of the SIP submission using the 4-step interstate transport framework, and EPA is therefore proposing to disapprove Tennessee's SIP submission.

(a) Results of EPA's Step 1 and Step 2 Modeling and Findings for Tennessee

As described in section I, EPA performed updated air quality modeling to project design values and contributions for 2023. These data were examined to determine if Tennessee contributes at or above the threshold of 1 percent of the 2015 8-hour ozone NAAQS (0.70 ppb) to any downwind nonattainment or maintenance receptor. As shown in Table 3, the data[57] indicate that in 2023, emissions from Tennessee contribute greater than 1 percent of the standard to the maintenance-only receptor in Denton County, Texas (ID#: 481210034).[58]

TABLE 3—TENNESSEE LINKAGE RESULTS BASED ON EPA UPDATED 2023 MODELING

Receptor ID	Location	Nonattainment/maintenance	2023 Average design value (ppb)	2023 Maximum design value (ppb)	Tennessee contribution (ppb)
481210034	Denton County, Texas	Maintenance	70.4	72.2	0.94

(b) Evaluation of Information Provided by Tennessee Regarding Step 1

At Step 1 of the 4-step interstate transport framework, Tennessee relied on EPA modeling included in the March 2018 memorandum to identify nonattainment and maintenance receptors in 2023. As described previously in section II.C.3.a, EPA has recently updated this modeling using the most current and technically appropriate information. EPA proposes to rely on EPA's most recent modeling to identify nonattainment and maintenance receptors in 2023. That information establishes that there is one receptor to which Tennessee is projected to be linked in 2023.

(c) Evaluation of Information Provided by Tennessee Regarding Step 2

At Step 2 of the 4-step interstate transport framework, Tennessee relied on EPA modeling released in the March 2018 memorandum to identify upwind state linkages to nonattainment and maintenance receptors in 2023. As described in section I.C of this notice,

[55] The Tennessee SIP revision specifically cites the Federal NO_X Budget Trading Program, CAIR, and CSAPR. In addition, the Tennessee SIP revision discusses Tennessee rule 1200–03–27–.12 (NO_X SIP Call requirements for Stationary Boilers and Combustion Turbines), which had not been approved into the SIP at the time of the September 13, 2018, submittal. EPA finalized approval of TAPR 1200–03–27–.12 into the Tennessee SIP on March 2, 2021. *See* 86 FR 12092.

[56] See page 9 through 12 of Tennessee's September 13, 2018, SIP submission for a list of SIP-approved State rules and Federal rules. This can be found in Docket No. EPA–R04–OAR–2021–0841.

[57] The ozone design values and contributions at individual monitoring sites nationwide are provided in the file ''2016v2_DVs_state_contributions.xlsx'' which is included in Docket No. EPA–HQ–OAR–2021–0663.

[58] These modeling results are consistent with the results of a prior round of 2023 modeling using the 2016v1 emissions platform which became available to the public in the fall of 2020 in the Revised CSAPR Update, as noted in section I. That modeling showed that Tennessee had a maximum contribution greater than 0.70 ppb to at least one nonattainment or maintenance-only receptor in 2023. These modeling results are included in the file ''Ozone Design Values And Contributions Revised CSAPR Update.xlsx'' in Docket No. EPA–HQ–OAR–2021–0663.

EPA has recently updated modeling to identify upwind state contributions to nonattainment and maintenance receptors in 2023. In this proposal, EPA relies on the Agency's most recently available modeling to identify upwind contributions and ''linkages'' to downwind air quality problems in 2023 using a threshold of 1 percent of the NAAQS. *See* section I.D for a general explanation of the use of 1 percent of the NAAQS.

As shown in Table 3, updated EPA modeling identifies Tennessee's maximum contribution to a downwind maintenance receptor as greater than 1 percent of the standard (*i.e.,* 0.70 ppb). Therefore, the State is linked to a downwind air quality problem at Steps 1 and 2. Because the entire technical basis for Tennessee's submittal is that the State is not linked at Step 2, EPA proposes to disapprove Tennessee's SIP submission based on EPA's finding that a linkage does exist.[59]

Tennessee references a 1 ppb threshold in its submittal, citing to EPA's SILs Guidance as justification for the use of a 1 ppb threshold. However, Tennessee did not provide additional discussion or analysis containing information specific to Tennessee or the receptors to which its emissions are potentially linked, which is necessary to evaluate the state-specific circumstances that could support approval of an alternative threshold. Nevertheless, EPA recognizes that the most recently available EPA modeling at the time Tennessee submitted its SIP submittal indicated the State did not contribute above 1 percent of the NAAQS to a projected downwind nonattainment or maintenance receptor. Therefore, the State may not have considered conducting an in-depth analysis as to the reasonableness and appropriateness of a 1 ppb threshold at Step 2 of the 4-step interstate transport framework per the August 2018 memorandum. However, EPA's August 2018 memorandum provided that whether use of a 1 ppb threshold is appropriate must be based on an evaluation of state-specific circumstances. Tennessee provided no such analysis. Further, the State did not explain the relevance of the SILs Guidance to which it made reference. This guidance relates to a different provision of the CAA regarding implementation of the PSD permitting program, *i.e.,* a program that applies in areas that have been designated attainment[60] or unclassifiable for the NAAQS, and it is not applicable to the good neighbor provision, which requires states to eliminate significant contribution or interference with maintenance of the NAAQS at known and ongoing air quality problem areas in other states.

EPA's experience with the alternative Step 2 thresholds is further discussed in section I.D.3.a above. As discussed there, EPA is considering withdrawing the August 2018 memorandum.

(d) Evaluation of Information Provided by Tennessee Regarding Step 3

At Step 3 of the 4-step interstate transport framework, a state's emissions are further evaluated, in light of multiple factors, including air quality and cost considerations, to determine what, if any, emissions significantly contribute to nonattainment or interfere with maintenance and, thus, must be eliminated under CAA section 110(a)(2)(D)(i)(I).

To effectively evaluate which emissions in the state should be deemed ''significant'' and therefore prohibited, states generally should prepare an accounting of sources and other emissions activity for relevant pollutants and assess potential, additional emissions reduction opportunities and resulting downwind air quality improvements. EPA has consistently applied this general approach (*i.e.,* Step 3 of the 4-step interstate transport framework) when identifying emissions contributions that the Agency has determined to be ''significant'' (or interfere with maintenance) in each of its prior Federal, regional ozone transport rulemakings, and this interpretation of the statute has been upheld by the Supreme Court. *See EME Homer City,* 572 U.S. 489, 519 (2014). While the EPA has not directed states that they must conduct a Step 3 analysis in precisely the manner the EPA has done in its prior regional transport rulemakings, state implementation plans addressing the obligations in CAA section 110(a)(2)(D)(i)(I) must prohibit ''any source or other type of emissions activity within the State'' from emitting air pollutants which will contribute significantly to downwind air quality problems. Thus, states must complete something similar to the EPA's analysis (or an alternative approach to defining ''significance'' that comports with the statute's objectives) to determine whether and to what degree emissions from a state should be ''prohibited'' to eliminate emissions that will ''contribute significantly to nonattainment in or interfere with maintenance of'' the NAAQS in any other state. Tennessee did not conduct such an analysis in its SIP submission.

The State did not analyze total ozone precursors that continue to be emitted from sources and other emissions activity within the State, evaluate the emissions reduction potential of any additional controls using cost or other metrics, nor evaluate any resulting downwind air quality improvements that could result from such controls. Instead, Tennessee included in its submittal a list of existing emissions control programs and measures in the State. However, EPA's modeling already takes account of such measures. Despite these existing emissions controls, the State is projected in the most recent modeling to be linked to at least one downwind nonattainment or maintenance receptor. The State was therefore obligated at Step 3 to assess *additional* control measures using a multifactor analysis.

As mentioned above, EPA has newly available information that indicates sources in Tennessee are linked to downwind air quality problems for the 2015 ozone standard. Therefore, EPA proposes to disapprove Tennessee's September 18, 2018, SIP submission on the separate, additional basis that the SIP submittal did not assess additional emissions control opportunities.

(e) Evaluation of Information Provided by Tennessee Regarding Step 4

Step 4 of the 4-step interstate transport framework calls for development of permanent and federally enforceable control strategies to achieve the emissions reductions determined to be necessary at Step 3 to eliminate significant contribution to nonattainment or interference with maintenance of the NAAQS. As mentioned in section II.C.3.d, Tennessee's SIP submission did not contain an evaluation of additional emissions control opportunities (or establish that no additional controls are required), thus, no information was provided at Step 4. As a result, EPA proposes to disapprove Tennessee's September 18, 2018, submittal on the separate, additional basis that the State has not developed permanent and enforceable emissions reductions necessary to meet the obligations of CAA section 110(a)(2)(d)(i)(I).

4. Conclusion for Tennessee

Based on EPA's evaluation of Tennessee's SIP submission and after consideration of updated EPA modeling using the 2016-based emissions

[59] To the extent the Tennessee submittal included information regarding emissions controls that could be interpreted as relevant to a Step 3 analysis, EPA evaluates that information in section II.C.3.d.

[60] *See* footnote 49.

modeling platform, EPA is proposing to find that the portion of Tennessee's September 13, 2018, SIP submission addressing CAA section 110(a)(2)(D)(i)(I) does not meet the State's interstate transport obligations because it fails to contain the necessary provisions to eliminate emissions that will contribute significantly to nonattainment or interfere with maintenance of the 2015 8-hour ozone NAAQS in any other state.

III. Proposed Actions

EPA is proposing to disapprove the 2015 ozone good neighbor interstate transport SIP revisions from Alabama, dated August 20, 2018; from Mississippi, dated September 3, 2019; and from Tennessee, dated September 13, 2018. Under CAA section 110(c)(1), if finalized, these disapprovals would establish a 2-year deadline for EPA to promulgate a FIP for Alabama, Mississippi, and Tennessee to address the CAA section 110(a)(2)(D)(i)(I) interstate transport requirements pertaining to significant contribution to nonattainment and interference with maintenance of the 2015 8-hour ozone NAAQS in other states, unless EPA approves a SIP that meets these requirements. However, under the CAA, a good neighbor SIP disapproval does not start a mandatory sanctions clock.

IV. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review

These proposed actions are not significant regulatory actions and were therefore not submitted to the Office of Management and Budget for review.

B. Paperwork Reduction Act (PRA)

These proposed actions do not impose an information collection burden under the PRA because they do not contain any information collection activities.

C. Regulatory Flexibility Act (RFA)

These actions merely propose to disapprove SIP submissions as not meeting the CAA for Alabama, Mississippi, and Tennessee. EPA certifies that these proposed rules will not have a significant economic impact on a substantial number of small entities under the RFA (5 U.S.C. 601 *et seq.*)

D. Unfunded Mandates Reform Act (UMRA)

These proposed actions do not contain any unfunded mandate as described in UMRA, 2 U.S.C. 1531–1538, and do not significantly or uniquely affect small governments. These proposed actions impose no enforceable duty on any state, local, or tribal governments or the private sector.

E. Executive Order 13132: Federalism

These proposed actions do not have federalism implications. They will not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government.

F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments

These proposed actions do not have tribal implications as specified in Executive Order 13175. These proposed actions do not apply on any Indian reservation land, any other area where EPA or an Indian tribe has demonstrated that a tribe has jurisdiction, or non-reservation areas of Indian country. Thus, Executive Order 13175 does not apply to these actions.

G. Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks

EPA interprets Executive Order 13045 as applying only to those regulatory actions that concern environmental health or safety risks that EPA has reason to believe may disproportionately affect children, per the definition of ''covered regulatory action'' in section 2–202 of the Executive Order. These proposed actions are not subject to Executive Order 13045 because they merely propose to disapprove SIP submissions from Alabama, Mississippi, and Tennessee as not meeting the CAA.

H. Executive Order 13211, Actions That Significantly Affect Energy Supply, Distribution or Use

These proposed actions are not subject to Executive Order 13211, because they are not significant regulatory actions under Executive Order 12866.

I. National Technology Transfer and Advancement Act

This proposed rulemaking does not involve technical standards.

J. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations

EPA believes the human health or environmental risk addressed by these proposed actions will not have potential disproportionately high and adverse human health or environmental effects on minority, low-income or indigenous populations. These proposed actions merely propose to disapprove SIP submissions as not meeting the CAA.

K. CAA Section 307(b)(1)

Section 307(b)(1) of the CAA governs judicial review of final actions by EPA. This section provides, in part, that petitions for review must be filed in the D.C. Circuit: (i) When the agency action consists of ''nationally applicable regulations promulgated, or final actions taken, by the Administrator,'' or (ii) when such action is locally or regionally applicable, if ''such action is based on a determination of nationwide scope or effect and if in taking such action the Administrator finds and publishes that such action is based on such a determination.'' For locally or regionally applicable final actions, the CAA reserves to EPA complete discretion whether to invoke the exception in (ii).[61]

EPA anticipates that this proposed rulemaking, if finalized, would be ''nationally applicable'' within the meaning of CAA section 307(b)(1) because it would take final action on SIP submittals for the 2015 8-hour ozone NAAQS for the states of Alabama, Mississippi, and Tennessee, which are located in three different Federal judicial circuits (the Eleventh Circuit, the Fifth Circuit, and the Sixth Circuit, respectively). It would apply uniform, nationwide analytical methods, policy judgments, and interpretation with respect to the same CAA obligations, *i.e.,* implementation of good neighbor requirements under CAA section 110(a)(2)(D)(i)(I) for the 2015 8-hour ozone NAAQS for states across the country, and final action would be based on this common core of determinations, described in further detail below.

If EPA takes final action on this proposed rulemaking, in the alternative, the Administrator intends to exercise the complete discretion afforded to him under the CAA to make and publish a finding that the final action (to the extent a court finds the action to be locally or regionally applicable) is based on a determination of ''nationwide scope or effect'' within the meaning of CAA section 307(b)(1). Through this

[61] In deciding whether to invoke the exception by making and publishing a finding that an action is based on a determination of nationwide scope or effect, the Administrator takes into account a number of policy considerations, including his judgment balancing the benefit of obtaining the D.C. Circuit's authoritative centralized review versus allowing development of the issue in other contexts and the best use of agency resources.

rulemaking action (in conjunction with a series of related actions on other SIP submissions for the same CAA obligations), EPA interprets and applies section 110(a)(2)(d)(i)(I) of the CAA for the 2015 8-hour ozone NAAQS based on a common core of nationwide policy judgments and technical analysis concerning the interstate transport of pollutants throughout the continental U.S. In particular, EPA is applying here (and in other proposed actions related to the same obligations) the same, nationally consistent 4-step framework for assessing good neighbor obligations for the 2015 8-hour ozone NAAQS. EPA relies on a single set of updated, 2016-base year photochemical grid modeling results of the year 2023 as the primary basis for its assessment of air quality conditions and contributions at Steps 1 and 2 of that framework. Further, EPA proposes to determine and apply a set of nationally consistent policy judgments to apply the 4-step framework. EPA has selected a nationally uniform analytic year (2023) for this analysis and is applying a nationally uniform approach to nonattainment and maintenance receptors and a nationally uniform approach to contribution threshold analysis.[62] For these reasons, the Administrator intends, if this proposed action is finalized, to exercise the complete discretion afforded to him under the CAA to make and publish a finding that this action is based on one or more determinations of nationwide scope or effect for purposes of CAA section 307(b)(1).[63]

[62] A finding of nationwide scope or effect is also appropriate for actions that cover states in multiple judicial circuits. In the report on the 1977 Amendments that revised section 307(b)(1) of the CAA, Congress noted that the Administrator's determination that the ''nationwide scope or effect'' exception applies would be appropriate for any action that has a scope or effect beyond a single judicial circuit. *See* H.R. Rep. No. 95–294 at 323, 324, reprinted in 1977 U.S.C.C.A.N. 1402–03.

[63] EPA may take a consolidated, single final action on all of the proposed SIP disapproval actions with respect to obligations under CAA section 110(a)(2)(D)(i)(I) for the 2015 8-hour ozone NAAQS. Should EPA take a single final action on all such disapprovals, this action would be nationally applicable, and EPA would also anticipate, in the alternative, making and publishing a finding that such final action is based on a determination of nationwide scope or effect.

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Ozone.

Authority: 42 U.S.C. 7401 *et seq.*

Dated: February 3, 2022.

Daniel Blackman,

Regional Administrator, Region 4.

[FR Doc. 2022–02948 Filed 2–18–22; 8:45 am]

BILLING CODE 6560–50–P

Notices

Federal Register
Vol. 87, No. 35
Tuesday, February 22, 2022

This section of the FEDERAL REGISTER contains documents other than rules or proposed rules that are applicable to the public. Notices of hearings and investigations, committee meetings, agency decisions and rulings, delegations of authority, filing of petitions and applications and agency statements of organization and functions are examples of documents appearing in this section.

AGENCY FOR INTERNATIONAL DEVELOPMENT

60-Day Notice of Public Information Collections

AGENCY: U.S. Agency for International Development.

ACTION: Notice of public information collections.

SUMMARY: The U.S. Agency for International Development (USAID) seeks Office of Management and Budget (OMB) approval to continue the information collections described below. In accordance with the Paperwork Reduction Act of 1995, USAID requests public comment on this collection from all interested individuals and organizations. The purpose of this notice is to allow 60 days for public comment preceding submission of the collections to OMB. Comments are requested concerning: (a) Whether the collections of information are necessary for the proper performance of the functions of the Agency, including whether the information shall have practical utility; (b) the accuracy of the burden estimates; (c) ways to enhance the quality, utility, and clarity of the information collected; and (d) ways to minimize the burden of the collection of information on the respondents, including through the use of automated collection techniques or other forms of information technology.

DATES: Submit comments on or before April 25, 2022.

ADDRESSES: You may submit comments by any of the following methods:

1. *Web:* Through the Federal eRulemaking Portal at *http://www.regulations.gov* by following the instructions for submitting comments.
2. *Email: policymailbox@usaid.gov.*

FOR FURTHER INFORMATION CONTACT: Wayne Cohee, at (202) 916–2630 or via email at *policymailbox@usaid.gov.*

SUPPLEMENTARY INFORMATION:

Instructions

All comments must be in writing and submitted through the method(s) specified in the **ADDRESSES** section above. All submissions must include the information collection title. Please include your name, title, organization, postal address telephone number, and email address in the text of the message. Please note that comments submitted in response to this Notice are public record. We recommend that you do not submit detailed personal information, Confidential Business Information, or any information that is otherwise protected from disclosure by statute.

USAID will only address comments that explain why the proposed collection would be inappropriate, ineffective, or unacceptable without a change. Comments that are insubstantial or outside the scope of the notice of request for public comment may not be considered.

OMB No: 0412–0510 (expired).

Title of Information Collection: Applicant and Recipient Information Collected in Response to Standard Provisions in USAID Grants and Cooperative Agreements to Non-Governmental Organizations.

Type of Review: Reinstatement, with change, of a previously approved collection (OMB approval number 0412–0510) for which approval has expired.

Purpose: USAID is authorized to make grants to and enter cooperative agreements with Non-Governmental Organizations in or outside of the United States in furtherance of the purposes and within limitations of the Foreign Assistance Act (FAA). The information collection requirements placed on the public are published in Standard Provisions that are included, as required or as applicable, in Notices of Funding Opportunities to potential applicants and resulting awards to recipients. The pre-award requirements are based on a need for prudent management in the determination that an applicant either has or can obtain the ability to competently manage development assistance programs using public funds. The requirements for information collection during the post-award period are based on the need to prudently administer public funds.

Respondents: USAID grant and cooperative agreement applicants and recipients.

Estimated Number of Annual Responses: 1,210.

Estimated Number of Annual Burden Hours: 22,100.

Estimated Total Public Burden (in cost): $1,303,900.

These estimated totals were calculated using the below burden estimates per response for each of the named Standard Provisions, which are published internally in the Agency's Automated Directives System (ADS) Chapter 303 and included by Agreement Officers, as required or as applicable, in Notices of Funding Opportunities and resulting awards:

ACCOUNTING, AUDIT, AND RECORDS (MARCH 2021)—4 hours
DEBARMENT, SUSPENSION, AND OTHER RESPONSIBILITY MATTERS (JUNE 2012)—4 hours
TRAVEL AND INTERNATIONAL AIR TRANSPORTATION (DECEMBER 2014)—4 hours
OCEAN SHIPMENT OF GOODS (JUNE 2012)—4 hours
TRAFFICKING IN PERSONS (April 2016)—8 hours
USAID IMPLEMENTING PARTNER NOTICES (IPN) PORTAL FOR ASSISTANCE (JULY 2014)—4 hours
MANDATORY DISCLOSURES (NOVEMBER 2020)—40 hours
CONFLICT OF INTEREST (August 2018)—8 hours
NEGOTIATED INDIRECT COST RATES—PREDETERMINED (NOVEMBER 2020)—40 hours
NEGOTIATED INDIRECT COST RATES—PROVISIONAL (Nonprofit) (NOVEMBER 2020)—40 hours
NEGOTIATED INDIRECT COST RATE—PROVISIONAL (Profit) (DECEMBER 2014)—40 hours
INDIRECT COSTS—NEGOTIATED INDIRECT COST RATE AGREEMENT (NICRA) (NOVEMBER 2020)—40 hours
FLY AMERICA ACT RESTRICTIONS (AUGUST 2013)—4 hours
VOLUNTARY POPULATION PLANNING ACTIVITIES—SUPPLEMENTAL REQUIREMENTS (JANUARY 2009)—8 hours
TITLE TO AND CARE OF PROPERTY (COOPERATING COUNTRY TITLE) (NOVEMBER 1985)—16 hours
INVESTMENT PROMOTION (NOVEMBER 2003)—8 hours
REPORTING HOST GOVERNMENT

TAXES (DECEMBER 2014)—8 hours
COST SHARE (JUNE 2012)—24 hours
PROTECTION OF HUMAN RESEARCH SUBJECTS (JUNE 2012)—24 hours
PATENT REPORTING PROCEDURES (NOVEMBER 2020)—16 hours

Luis A. Rivera,

Acting Senior Procurement Executive.

[FR Doc. 2022–03658 Filed 2–18–22; 8:45 am]

BILLING CODE 6116–02–P

DEPARTMENT OF AGRICULTURE

Agricultural Marketing Service

[Doc. No. AMS–AMS–22–0005]

Notice of Request for Extension and Revision of a Currently Approved Information Collection

AGENCY: Agricultural Marketing Service, USDA.

ACTION: Notice and request for comments.

SUMMARY: In accordance with the Paperwork Reduction Act of 1995, this notice announces the Agricultural Marketing Service's (AMS) intention to request approval, from the Office of Management and Budget, for an extension of and revision to the currently approved information collection National Bioengineered Food Disclosure Standard.

DATES: Comments on this notice must be received by April 25, 2022 to be assured of consideration.

ADDRESSES: Interested persons are invited to submit comments concerning this notice by using the electronic process available at *www.regulations.gov.* Comments may also be filed with the Docket Clerk, 1400 Independence Ave. SW, Room 2069-South, Washington, DC 20250; Fax: (202) 260–8369. All comments should reference the document number and the date and page number of this issue of the **Federal Register**. All comments submitted in response to this notice will be posted without change, including any personal information provided, at *www.regulations.gov* and will be included in the record and made available to the public. All comments received will also be available for public inspection during regular business hours at the address above.

FOR FURTHER INFORMATION CONTACT: Kenneth Becker, Chief, Research and Rulemaking Branch, Food Disclosure and Labeling Division, Fair Trade Practices Program, Agricultural Marketing Service, U.S. Department of Agriculture. telephone (202) 720–4486, email: *kenneth.becker@usda.gov.*

SUPPLEMENTARY INFORMATION:

Agency: USDA, AMS.

Title: National Bioengineered Food Disclosure Standard.

OMB Number: 0581–0315.

Expiration Date of Approval: April 30, 2022.

Type of Request: Extension and revision of a currently approved information collection.

Abstract: The U.S. Department of Agriculture (USDA) administers the Agricultural Marketing Act of 1946 (Title II of the Act of August 14, 1946). P.L. 114–216 amended the Agricultural Marketing Act of 1946, directing the Secretary of Agriculture to establish the National Bioengineered Food Disclosure Standard (7 CFR 66) for disclosing certain foods that are bioengineered or contain bioengineered ingredients. The final rule (National Bioengineered Food Disclosure Standard [7 CFR 66]) fulfils USDA's need to establish requirements and procedures to carry out the new standard. P.L. 114–216 also addressed Federal preemption of State and local genetic engineering labeling requirements and specifies that certification of food under USDA's National Organic Program (7 CFR 205) were considered sufficient to make claims about the absence of bioengineering in the food. AMS gathered industry input and conducted rulemaking on the National Bioengineered Food Disclosure Standards. In accordance with the Paperwork Reduction Act of 1995 (44 U.S.C. 3501–3520), AMS is publishing this a 60-day notice on reporting and recordkeeping requirements related to the National Bioengineered Food Disclosure Standard. This collection represents a total burden of 353,952 hours.

Estimate of Burden: Public reporting burden for this collection of information is estimated to average 2.3 hours per response.

Respondents: Importers, food manufacturers, and food retailers.

Estimated Number of Respondents: 155,098.

Estimated Total Annual Responses: 155,098.

Estimated Number of Responses per Respondent: 1.

Estimated Total Annual Burden on Respondents: 353,952 hours.

Comments are invited on: (1) Whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility; (2) the accuracy of the agency's estimate of the burden of the proposed collection of information including the validity of the methodology and assumptions used; (3) ways to enhance the quality, utility, and clarity of the information to be collected; and (4) ways to minimize the burden of the collection of information on those who are to respond, including the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology.

All responses to this notice will be summarized and included in the request for OMB approval. All comments will become a matter of public record.

Erin Morris,

Associate Administrator, Agricultural Marketing Service.

[FR Doc. 2022–03713 Filed 2–18–22; 8:45 am]

BILLING CODE P

DEPARTMENT OF AGRICULTURE

Submission for OMB Review; Comment Request

The Department of Agriculture has submitted the following information collection requirement(s) to OMB for review and clearance under the Paperwork Reduction Act of 1995, Public Law 104–13. Comments are requested regarding: Whether the collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility; the accuracy of the agency's estimate of burden including the validity of the methodology and assumptions used; ways to enhance the quality, utility and clarity of the information to be collected; and ways to minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology.

Comments regarding this information collection received by March 24, 2022 will be considered. Written comments and recommendations for the proposed information collection should be submitted within 30 days of the publication of this notice on the following website *www.reginfo.gov/public/do/PRAMain.* Find this particular information collection by selecting ''Currently under 30-day Review—Open for Public Comments'' or by using the search function.

An agency may not conduct or sponsor a collection of information

unless the collection of information displays a currently valid OMB control number and the agency informs potential persons who are to respond to the collection of information that such persons are not required to respond to the collection of information unless it displays a currently valid OMB control number.

Rural Housing Service

Title: RD 1924 Construction Common Forms.

OMB Control Number: 0575–NEW.

Summary of Collection: The information collection under OMB Number 0575-New will enable the Agencies to effectively administer the policies, methods, and responsibilities in the planning and performing of construction and other development work for the related construction programs.

The Rural Housing Service (RHS) is authorized under various sections of Title V of the Housing Act of 1949, as amended, to provides financial assistance to construct, improve, alter, repair, replace, or rehabilitate dwellings, which will provide modest, decent, safe, and sanitary housing to eligible individuals in rural areas. The Consolidated Farm and Rural Development Act, as amended, authorizes the credit programs of the RHS, RBCS and RUS to provide financial assistance for essential community facilities such as construction of community facilities and water and waste systems; and the improvement, development, and financing of businesses, industries, and employment.

In several sections of both acts, loan limitations are established as percentages of development costs, requiring careful monitoring of those costs. Also, the Secretary is authorized to prescribe regulations to ensure that Federal funds are not wasted or dissipated and that construction will be undertaken economically and will not be of elaborate or extravagant design or materials. The collection of information covered by the forms allows for the planning and performing of construction and other development work.

Need and Use of the Information: The applicant/borrower, contractor, subcontractor, material supplier, equipment lessor, architect, engineer, manufacturer or sponsor of manufactured housing collects the required information. Rural Development provides forms and/or guidelines to assist in the collection and submission of information; however, most of the information may be collected and submitted in the form and content which is accepted and typically used in the normal conduct of planning and performing development work in private industry when a private lender is financing the activity. The information is usually submitted via hand delivery or U.S. Postal Service to the Rural Development Field Office, although receipt through email or USDA Service Center's eForms website is becoming more common. Occasionally, information is submitted directly to the Rural Development State Office. The information is used by Rural Development to determine whether a loan/grant can be approved, to ensure that Rural Development has adequate security for the loans financed, to provide for sound construction and development work and to determine that the requirements of the applicable acts have been met. The information is also used to monitor compliance with the terms and conditions of the loan/grant and to monitor the prudent use of Federal funds.

Applications are submitted through the applicable USDA Rural Development State Office.

Description of Respondents: Individuals or Households.

Number of Respondents: 15.

Frequency of Responses: Annually.

Total Burden Hours: 7.

Rural Housing Service

Title: 1901–E Civil Rights Common Forms.

OMB Control Number: 0575–NEW.

Summary of Collection: The information collection under OMB Number 0575-New will enable the Agencies to effectively administer the policies, methods, and responsibilities in the planning and performing of construction and other development work for the related construction programs.

The Rural Housing Service (RHS), Rural Business and Cooperative Service (RBCS) and Rural Utilities service (RUS) agencies within the Rural Development mission area, hereinafter referred to as Agency, is the credit Agency for agriculture and rural development for the United States Department of Agriculture. The Agency offers offer loans, grants and loan guarantees to help create jobs and support economic development and essential services such as housing; health care; first responder services and equipment; and water, electric and communications infrastructure on an equal opportunity basis. The information collection requirements in this request are needed to comply with civil rights laws and Executive Orders that provide protection and prohibit discrimination on the basis of race, color, national origin, religion, sex, gender identity (including gender expression), sexual orientation, disability, age, marital status, family/parental status, income derived from a public assistance program, political beliefs, reprisal or retaliation for prior civil rights activity.

7 CFR part 1901–E implements the following Civil Rights laws, Executive Orders, and regulations, to collect the necessary information and enforce the civil rights requirements of RD's Federally assisted programs and programs that provide housing. Title VI and Title VIII have overlapping coverage providing protection on the bases of race, color and national origin.

Need and use of the Information: The same information is provided by each program, but it is evaluated differently based on the specific nature of its benefits and services. This information is used by RD to comply with the Department of Justice (DOJ) Title VI Regulation 28 CFR part 42 subpart F to ensure that Federal agencies which extend Federal financial assistance properly enforce Title VI of the Civil Rights Act and similar provisions in Federal grant statutes. Additionally, Section 42.407—''Procedures to Determine Compliance'' established RD requirements to conduct pre-award and post-award compliance reviews. The requirement to conduct compliance reviews is also based on the requirements of Executive Order 12250.

Information is also used internally by RD to monitor and analyze program participation to determine compliance with the civil rights laws applicable to that recipient. The information is also used by the Agency to determine Agency compliance. In the case of RD housing programs, the information will be reported to Congress for the required annual reporting. A compilation of all RD civil rights activities implementing the various civil rights laws and regulations and the number of compliance reviews conducted, including pre-and post-awards, will be reported on the Implementation Plan and submitted to the Department of Justice. This information is made available to USDA officials, officials of other Federal enforcement agencies, and to Congress for reporting purposes.

To ensure compliance with 28 CFR 42.405, RD compliance officers conduct compliance reviews which often involve a visual review of the recipients' posting of the required posters, and review advertising and community outreach to determine if the general public is made aware of the facility and that it is Federally financed, and therefore

eligible for use on an equal opportunity basis. Community contacts are made with business and community leaders and participants in the program to obtain their knowledge and opinions of the facility's operation and determine if there have been allegations of discrimination made in the community.

Compliance officers utilize compliance review forms such as Form 400–8 to comport with the compliance review requirements of DOJ regulation 28 CFR part 42, and Executive Order 12250. The frequency of compliance reviews is based on whether it is a loan or grant and the specific requirements of the program. Grants-only obligations only require a pre-award and a post-award compliance review. Where grants are utilized for revolving loan funds, compliance reviews are done on recipients every five years.

Description of Respondents: Individuals or Households.

Number of Respondents: 3.

Frequency of Responses: Annually.

Total Burden Hours: 0.

Dated: February 16, 2022.

Levi S. Harrell,

Departmental Information Collection Clearance Officer.

[FR Doc. 2022–03714 Filed 2–18–22; 8:45 am]

BILLING CODE 3410–XV–P

DEPARTMENT OF AGRICULTURE

Submission for OMB Review; Comment Request

February 15, 2022.

The Department of Agriculture has submitted the following information collection requirement(s) to OMB for review and clearance under the Paperwork Reduction Act of 1995, Public Law 104–13. Comments are requested regarding; whether the collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility; the accuracy of the agency's estimate of burden including the validity of the methodology and assumptions used; ways to enhance the quality, utility and clarity of the information to be collected; and ways to minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology.

Comments regarding this information collection received by March 24, 2022 will be considered. Written comments and recommendations for the proposed information collection should be submitted within 30 days of the publication of this notice on the following website *www.reginfo.gov/public/do/PRAMain.* Find this particular information collection by selecting ''Currently under 30-day Review—Open for Public Comments'' or by using the search function.

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Food and Nutrition Service

Title: USDA National Hunger Clearinghouse Database Form (FNS 543).

OMB Control Number: 0584–0474.

Summary of Collection: Section 26(d) of the Richard B. Russell National School Lunch Act (42 U.S.C. 1769g(d)) (the Act), which was added to the Act by section 123 of Public Law 103–448 on November 2, 1994, mandated that FNS enter into a contract with a non-governmental organization to establish and maintain an information clearinghouse (named ''USDA National Hunger Clearinghouse'' or ''Clearinghouse'') for groups that assist low-income individuals or communities regarding nutrition assistance programs or other assistance.

Need and Use of the Information: The Clearinghouse includes a database of non-governmental, grassroots organizations in the areas of hunger and nutrition, along with a mailing list to communicate with these organizations. These organizations enter their information into the database, and Clearinghouse staff use that information to provide the public with information about where they can get food assistance. Surveys (FNS–543) can be obtained online at *www.hungerfreeamerica.org.*

Description of Respondents: Individuals/Households, State, Local, or Tribal government, and Profit/Non-profit Business.

Number of Respondents: 600.

Frequency of Responses: Reporting: Once.

Total Burden Hours: 50.

Ruth Brown,

Departmental Information Collection Clearance Officer.

[FR Doc. 2022–03613 Filed 2–18–22; 8:45 am]

BILLING CODE 3410–30–P

DEPARTMENT OF AGRICULTURE

Submission for OMB Review; Comment Request

February 16, 2022.

The Department of Agriculture has submitted the following information collection requirement(s) to OMB for review and clearance under the Paperwork Reduction Act of 1995, Public Law 104–13. Comments are requested regarding; whether the collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility; the accuracy of the agency's estimate of burden including the validity of the methodology and assumptions used; ways to enhance the quality, utility and clarity of the information to be collected; and ways to minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology.

Comments regarding this information collection received by March 24, 2022 will be considered. Written comments and recommendations for the proposed information collection should be submitted within 30 days of the publication of this notice on the following website *www.reginfo.gov/public/do/PRAMain.* Find this particular information collection by selecting ''Currently under 30-day Review—Open for Public Comments'' or by using the search function.

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Economic Research Service

Title: Food Security Supplement to the Current Population Survey.

OMB Control Number: 0536–0043.

Summary of Collection: The Food Security Supplement to the Current Population Survey (CPS) is sponsored by USDA as research and evaluation activity authorized under 7 U.S.C. 2204(a). This section outlines duties of the Secretary of Agriculture related to research and development including authorizing the collection of statistics.

The Administrator of the Economic Research Service is authorized to conduct economic and social science research and analyses related to the U.S. food system and consumers under 7 CFR 2.67. The data to be collected will be used to address multiple programmatic and policy development needs of the Food and Nutrition Service (FNS) and other Federal agencies. The U.S. Census Bureau conducts this data collection on USDA's behalf under Title 13, Section 8(b).

Need and use of the Information: The data collected by the food security supplement will be used for monitoring the prevalence of food security, food insecurity, and very low food security within the U.S. population as a whole and in selected population subgroups; conducting research on causes of food insecurity and the role of Federal food and nutrition programs in ameliorating food insecurity; and continuing development and improvement of methods for measuring these conditions. Information will be collected on food spending, use of Federal and community food and nutrition assistance programs, difficulties in obtaining adequate food during the previous 12 months and 30 days due to constrained resources, and conditions that result from inadequate access to food.

Description of Respondents: Individuals or Households.

Number of Respondents: 53,901.

Frequency of Responses: Reporting: Annually.

Total Burden Hours: 6,479.

Ruth Brown,

Departmental Information Collection Clearance Officer.

[FR Doc. 2022–03702 Filed 2–18–22; 8:45 am]

BILLING CODE 3410–18–P

DEPARTMENT OF AGRICULTURE

Rural Utilities Service

[Docket No. RUS–22–TELECOM–0009]

Rural eConnectivity Program; Correction

AGENCY: Rural Utilities Service, Department of Agriculture.

ACTION: Notice; correction and amendment to Funding Opportunity Announcement (FOA).

SUMMARY: The Rural Utilities Service (RUS) published a Funding Opportunity Announcement (FOA) and solicitation of applications in the **Federal Register** on October 25, 2021, entitled Rural eConnectivity Program (ReConnect Program), announcing its general policy and application procedures for funding under the ReConnect Program established pursuant to the Consolidated Appropriations Act, 2018 (which became law on February 15, 2019) which provides loans, grants, and loan/grant combinations to facilitate broadband deployment in rural areas. The purpose of this notice is to inform the public of changes made to the ReConnect program and to correct the October notice. The two changes are extending the application window until 11:59 a.m.. Eastern on March 9, 2022 and potentially increasing total level of funding.

DATES: Actions described in this notice take effect February 22, 2022.

FOR FURTHER INFORMATION CONTACT: For general inquiries regarding the ReConnect Program, contact Laurel Leverier, Assistant Administrator Telecommunications Program, Rural Utilities Service, U.S. Department of Agriculture (USDA), email: *laurel.leverrier@usda.gov,* telephone (202) 720–9554. For inquiries regarding eligible service areas, please contact ReConnect Program Staff at *https://www.usda.gov/reconnect/contact-us.*

SUPPLEMENTARY INFORMATION:

Background

On October 25, 2021, RUS published a Funding Opportunity Announcement (FOA) and solicitation of applications in the **Federal Register** at 86 FR 58860. The FOA provided the policy and application procedures for the ReConnect Program. In support of the ReConnect Program, the agency identified the application closing date and funding amount for each category.

Since the publication of the FOA, the Agency's application system has been experiencing some issues that have hampered applicants from being able to complete applications. To allow the Agency sufficient time to address all the system issues and to give the applicants adequate time to complete their applications, the Agency has determined that an extension of the current period for submitting applications warranted. The actions taken in this notice will extend the application window until 11:59 a.m. Eastern on March 9, 2022. These actions are being taken by the Agency to ensure a successful third round of funding under the ReConnect Program.

There has also been a variety of new funding sources that meet the goals and purposes of this program. Therefore, to minimize the notices required, RUS may, at its discretion, increase the total level of funding available in this funding round or in any category in this funding round from any available source provided the awards meet the requirements of the statute which made the funding available to the agency.

Summary of Changes

The FOA published in the **Federal Register** on October 25, 2021, FOA must be corrected in regard to the application window being expanded from 11:59 a.m. Eastern on February 22, 2022 to 11:59 a.m. Eastern on March 9, 2022. The FOA must also be corrected to allow RUS at its discretion to increase the total level of funding available.

Corrections

In FR Doc. 2021–23128 appearing on page 58860 in the **Federal Register** of Monday, October 25, 2021, the following corrections are made:

1. On page 58860, second column, under **DATES**, correct ''11:59 a.m. Eastern on February 22, 2022'' to read ''11:59 a.m. Eastern on March 9, 2022''.

2. On page 85560, third column, under Overview, in the Dates section:

i. Correct ''11:59 a.m. Eastern on February 22, 2022'' to read ''11:59 a.m. Eastern on March 9, 2022''; and

ii. Correct the sentence ''Applications will not be accepted after February 22, 2022 until a new application opportunity has been opened with the publication of an additional FOA in the **Federal Register**'' to read ''Applications will not be accepted after March 9, 2022 until a new application opportunity has been opened with the publication of an additional FOA in the **Federal Register**''.

3. On page 58861, first column, at the end of the first full paragraph, add the sentence ''RUS may at its discretion, increase the total level of funding available in this funding round or in any category in this funding round from any available source provided the awards meet the requirements of the statute which made the funding available to the agency.''

Christopher A. McLean,

Acting Administrator, Rural Utilities Service.

[FR Doc. 2022–03716 Filed 2–17–22; 8:45 am]

BILLING CODE 3410–15–P

COMMISSION ON CIVIL RIGHTS

Notice of Public Meeting of the Tennessee Advisory Committee

AGENCY: Commission on Civil Rights.

ACTION: Announcement of meeting.

SUMMARY: Notice is hereby given, pursuant to the provisions of the rules and regulations of the U.S. Commission

on Civil Rights (Commission), and the Federal Advisory Committee Act (FACA), that a meeting of the Tennessee Advisory Committee to the Commission will convene by conference call on Wednesday, February 23, 2022, at 11:00 a.m. (CT). The purpose is to plan the Committee's upcoming briefings.

DATES: The meeting will be held on: Wednesday, February 23, 2022, 11:00 a.m. CT.

Join via Webex: https://civilrights.webex.com/civilrights/j.php?MTID=m9c8f90d5669efb4844365bf0dcec37a1.

Join via phone: 800–360–9505 USA Toll Free; Access Code: 276 348 210 55#.

FOR FURTHER INFORMATION CONTACT: Victoria Moreno at *vmoreno@usccr.gov* or by phone at 434–515–0204.

SUPPLEMENTARY INFORMATION: This meeting is available to the public through the WebEx link above. If joining only via phone, callers can expect to incur charges for calls they initiate over wireless lines, and the Commission will not refund any incurred charges. Individuals who are deaf, deafblind and hard of hearing may also follow the proceedings by first calling the Federal Relay Service at 1–800–877–8339 and providing the Service with the call-in number found through registering at the web link provided above for the meeting.

Members of the public are entitled to make comments during the open period at the end of the meeting. Members of the public may also submit written comments; the comments must be received in the Regional Programs Unit within 30 days following the respective meeting. Written comments may be emailed to Victoria Moreno at *vmoreno@usccr.gov.* All written comments received will be available to the public.

Persons who desire additional information may contact the Regional Programs Unit at (202) 809–9618. Records and documents discussed during the meeting will be available for public viewing as they become available at the *www.facadatabase.gov.* Persons interested in the work of this advisory committee are advised to go to the Commission's website, *www.usccr.gov,* or to contact the Regional Programs Unit at the above phone number or email address.

Agenda

Wednesday, February 23, 2022; 11:00 a.m. (CT)

1. Welcome & Roll Call
2. Chair's Comments
3. Briefing Planning
4. Next Steps
5. Public Comment
6. Adjourn

Dated: February 16, 2022.

David Mussatt,

Supervisory Chief, Regional Programs Unit.

[FR Doc. 2022–03733 Filed 2–18–22; 8:45 am]

BILLING CODE P

COMMISSION ON CIVIL RIGHTS

Notice of Public Meeting of the Iowa Advisory Committee to the U.S. Commission on Civil Rights

AGENCY: U.S. Commission on Civil Rights.

ACTION: Announcement of meeting.

SUMMARY: Notice is hereby given, pursuant to the provisions of the rules and regulations of the U.S. Commission on Civil Rights (Commission) and the Federal Advisory Committee Act, that the Iowa Advisory Committee (Committee) to the U.S. Commission on Civil Rights will hold WebEx meetings on Friday, April 1, 2022, at 3:00 p.m.–5:00 p.m. Central Time. The Committee will hear testimony from speakers regarding equal access to post-secondary education and the efficiency of civil rights and on Friday, May 13, 2022 at 3:00 p.m.–5:00 p.m. Central Time. The Committee will hear testimony from speakers regarding equal access to post-secondary education the efficience of civil rights protections to ensure access for protected groups.

DATES: The meeting will take place on Friday, April 1, 2022 at 3:00 p.m. CT and May 13, 2022 at 3:00 p.m. CT.

Link for 4/1/2022 (Friday) at 3:00 p.m. (CT).

Online Regisration (Audio/Visual): https://tinyurl.com/040122.

Telephone (Audio Only): Dial 800–360–9505 USA Toll Free; Access code: 2761 831 5052.

Link for 5/13/2022 (Friday) at 3:00 p.m. (CT) *https://tinyurl.com/051322.*

Online Registration: Dial 800–360–9505 USA Toll Free Access code 2763 131 0121.

FOR FURTHER INFORMATION CONTACT: Ana Fortes, DFO, at *afortes@usccr.gov* or (202) 519–2938.

SUPPLEMENTARY INFORMATION: Committee meetings are available to the public through the conference link above. Any interested member of the public may listen to the meeting. An open comment period will be provided to allow members of the public to make a statement as time allows. If joining via phone, callers can expect to incur regular charges for calls they initiate over wireless lines, according to their wireless plan. The Commission will not refund any incurred charges. Individuals who are deaf, deafblind, and hard of hearing may also follow the proceedings by first calling the Federal Relay Service at 1–800–877–8339 and providing the Service with the conference details found through registering at the web link above. To request additional accommodations, please email *afortes@usccr.gov* at least ten (10) days prior to the meeting.

Members of the public are also entitled to submit written comments; the comments must be received in the regional office within 30 days following the meeting. Written comments may be emailed to Corrine Sanders at *csanders@usccr.gov.* Persons who desire additional information may contact the Regional Programs Coordination Unit at (312) 353–8311.

Records generated from this meeting may be inspected and reproduced at the Regional Programs Coordination Unit Office, as they become available, both before and after the meeting. Records of the meeting will be available via *www.facadatabase.gov* under the Commission on Civil Rights, Iowa Advisory Committee link. Persons interested in the work of this Committee are directed to the Commission's website, *http://www.usccr.gov,* or may contact the Regional Programs Coordination Unit at the above email or street address.

Agenda

I. Welcome
II. Presentations and Q & A
III. Public Comment
IV. Committee Business/ Announcements
V. Adjournment

Dated: February 15, 2022.

David Mussatt,

Supervisory Chief, Regional Programs Unit.

[FR Doc. 2022–03621 Filed 2–18–22; 8:45 am]

BILLING CODE P

DEPARTMENT OF COMMERCE

Census Bureau

Agency Information Collection Activities; Submission to the Office of Management and Budget (OMB) for Review and Approval; Comment Request; Annual Business Survey

The Department of Commerce will submit the following information collection request to the Office of Management and Budget (OMB) for review and clearance in accordance

with the Paperwork Reduction Act of 1995, on or after the date of publication of this notice. We invite the general public and other Federal agencies to comment on proposed, and continuing information collections, which helps us assess the impact of our information collection requirements and minimize the public's reporting burden. Public comments were previously requested via the **Federal Register** on July 6, 2020 during a 60-day comment period. This notice allows for an additional 30 days for public comments.

Agency: U.S. Census Bureau, Department of Commerce.

Title: Annual Business Survey.

OMB Control Number: 0607–1004.

Form Number(s): ABS–1.

Type of Request: Regular submission, Request for a Revision of a Currently Approved Collection.

Number of Respondents: 308,000.

Average Hours per Response: 58 minutes.

Burden Hours: 301,533.

Needs and Uses: In an effort to improve the measurement of business dynamics in the United States, the Census Bureau is conducting the Annual Business Survey (ABS). The ABS combines Census Bureau firm-level collections to reduce respondent burden, increase data quality, reduce operational costs, and operate more efficiently. The ABS replaced the five-year Survey of Business Owners (SBO) for employer businesses, the Annual Survey of Entrepreneurs (ASE), and the Business Research and Development (R&D) and Innovation for Microbusinesses (BRDI–M) surveys. The ABS provides information on selected economic and demographic characteristics for businesses and business owners by sex, ethnicity, race, and veteran status. Further, the survey measures research and development for microbusinesses, new business topics such as innovation and technology, as well as other business characteristics. The ABS is sponsored by the National Center for Science and Engineering Statistics (NCSES) within the National Science Foundation (NSF) and conducted by the Census Bureau for five years (2018–2022).

The ABS includes all nonfarm employer businesses filing Internal Revenue Service (IRS) tax forms as individual proprietorships, partnerships, or any other type of corporation, with receipts of $1,000 or more. The ABS sampled approximately 850,000 employer businesses for survey year 2018 (reference year 2017). Starting with survey year 2019 (reference year 2018), the sample is reduced to approximately 300,000 employer businesses annually (survey years 2019–2022) to reduce the burden on the respondents. The reduced sample size will yield summary-level estimates for women-owned, minority-owned, and veteran-owned businesses at the 2-digit NAICS, U.S., state and metropolitan statistical area (MSA) levels. The Census Bureau uses administrative data to estimate the probability that a firm is minority- or women-owned. Each firm is then placed in one of nine frames for sampling. The sampling frames are: American Indian or Alaskan Native, Asian, Black or African American, Hispanic, Native Hawaiian and Other Pacific Islander, Non-Hispanic White Men, Other, Publicly Owned, and Women. The sample is stratified by state, industry, and frame. The Census Bureau selects some companies with certainty based on volume of sales, payroll, and number of paid employees or NAICS. All certainty cases are sure to be selected and represent only themselves.

Starting with survey year 2021 (reference year 2020), the ABS sample included an additional 8,000 respondents to collect research activities from nonprofit organizations. Historically, nonprofit organizations were in scope to the ABS, however, they were not mailed before the 2021 ABS because the survey does not expect nonprofit organizations to be classifiable by sex, ethnicity, race, or veteran status. To include the nonprofit organizations, the sample size increased to approximately 308,000 (300,000 employer businesses + 8,000 nonprofit organizations). Of note, nonprofit organizations will only see questions relating to research activities and will not be asked any questions relating to owner demographics.

The ABS is designed to allow for incorporating new content each survey year based on topics of relevance. Each year new questions will be submitted to the Office of Management and Budget (OMB) for approval.

Employer businesses will be asked questions about the sex, ethnicity, race, and veteran status for up to four persons owning the majority of rights, equity, or interest in the business (Section B of the questionnaire). Organizations sampled as nonprofits and respondents with 1–9 employees will be asked about research and development (R&D) activities, R&D costs, and R&D capital expenditures (Sections C and D of the questionnaire respectively). Further, employer businesses sampled will be asked about the following topics: Goods, Services, and Business Processes and Technology (Section E of the questionnaire); Design and Intellectual Property (Section F of the questionnaire); Domestic and Foreign Transactions (Section G of the questionnaire); and Coronavirus Pandemic Impact on Research and Development and Business Activities (Section H of the questionnaire). The 2022 ABS includes additional questions on capital expenditures for R&D performers. The R&D capital expenditures is asked of nonprofits and businesses with 1–9 employees (sections C and D of the ABS questionnaire).

The ABS is primarily collected via an electronic or web-based instrument. Respondents selected for the survey receive an initial letter informing them of their requirement to complete the survey as well as instructions on accessing the survey. The 2022 ABS initial mailing is scheduled for July 2022. Responses will be due approximately 30 days from initial mailing. Respondents will also receive a due date reminder approximately one week before responses are due. The Census Bureau plans to conduct two follow-up mailings and an optional third follow-up if deemed necessary based on check-in. Nonrespondents may receive a certified mailing for the second and third follow-up mailings. The Census Bureau may also plan to conduct an email follow-up to select nonrespondents reminding them to submit their report in the electronic instrument. The Census Bureau may include a paper questionnaire during the follow-up activities to assist with collecting data from select nonrespondents. Closeout of mail operations is scheduled for January 2023 but may be extended to allow ample time to receive returned forms if necessary. Response data will be processed as they are received. Upon the close of the collection period, data processing will continue, and records will be edited, reviewed, tabulated, and disseminated.

The Census Bureau, in collaboration with the NCSES, has started discussing topics for the 2023–2027 ABS 5-year cycle. As a result, a draft 5-year content plan has been developed for OMB's review.

Affected Public: Business or other for-profit organizations.

Frequency: Annually.

Respondent's Obligation: Mandatory.

Legal Authority: Title 13, United States Code, Sections 8(b), 131, and 182; Title 42, United States Code, Section 1861–76 (National Science Foundation Act of 1950, as amended); and Section 505 within the America COMPETES Reauthorization Act of 2010 authorize this collection. Sections 224 and 225 of

Title 13, United States Code, require a response from sampled firms.

This information collection request may be viewed at *www.reginfo.gov.* Follow the instructions to view the Department of Commerce collections currently under review by OMB.

Written comments and recommendations for the proposed information collection should be submitted within 30 days of the publication of this notice on the following website *www.reginfo.gov/public/do/PRAMain.* Find this particular information collection by selecting ''Currently under 30-day Review—Open for Public Comments'' or by using the search function and entering either the title of the collection or the OMB Control Number 0607–1004.

Sheleen Dumas,

Department PRA Clearance Officer, Office of the Chief Information Officer, Commerce Department.

[FR Doc. 2022–03724 Filed 2–18–22; 8:45 am]

BILLING CODE 3510–07–P

DEPARTMENT OF COMMERCE

Economic Development Administration

Notice of Petitions by Firms for Determination of Eligibility To Apply for Trade Adjustment Assistance

AGENCY: Economic Development Administration, Department of Commerce.

ACTION: Notice and opportunity for public comment.

SUMMARY: The Economic Development Administration (EDA) has received petitions for certification of eligibility to apply for Trade Adjustment Assistance from the firms listed below. Accordingly, EDA has initiated investigations to determine whether increased imports into the United States of articles like or directly competitive with those produced by each of the firms contributed importantly to the total or partial separation of the firms' workers, or threat thereof, and to a decrease in sales or production of each petitioning firm.

SUPPLEMENTARY INFORMATION:

LIST OF PETITIONS RECEIVED BY EDA FOR CERTIFICATION OF ELIGIBILITY TO APPLY FOR TRADE ADJUSTMENT ASSISTANCE

[1/20/2022 through 2/11/2022]

Firm name	Firm address	Date accepted for investigation	Product(s)
Davis Drapery & Interiors, Inc	629 Distributors Row, Harahan, LA 70123	1/21/2022	The firm manufactures window coverings, including blinds, shades, and curtains.
Midstates, Inc	4820 Capital Avenue NE, Aberdeen, SD 57401.	1/26/2022	The firm manufactures printed paper products.
Pavilion USA, LLC	16200 NW 49th Avenue, Miami Gardens, FL 33014.	2/4/2022	The firm manufactures metal furniture for use outdoors.
Palmetto Plating Company, Inc	510 Saco Lowell Road, Easley, SC 29640	2/8/2022	The firm applies protective coatings and finishes to metal parts.
Cooper Enterprises, Inc	89 Curtis Drive, Shelby, OH 44875	2/11/2022	The firm manufactures miscellaneous wooden parts and assemblies.

Any party having a substantial interest in these proceedings may request a public hearing on the matter. A written request for a hearing must be submitted to the Trade Adjustment Assistance Division, Room 71030, Economic Development Administration, U.S. Department of Commerce, Washington, DC 20230, no later than ten (10) calendar days following publication of this notice. These petitions are received pursuant to section 251 of the Trade Act of 1974, as amended.

Please follow the requirements set forth in EDA's regulations at 13 CFR 315.8 for procedures to request a public hearing. The Catalog of Federal Domestic Assistance official number and title for the program under which these petitions are submitted is 11.313, Trade Adjustment Assistance for Firms.

Bryan Borlik,

Director.

[FR Doc. 2022–03635 Filed 2–18–22; 8:45 am]

BILLING CODE 3510–WH–P

DEPARTMENT OF COMMERCE

Foreign-Trade Zones Board

[S–21–2022]

Foreign-Trade Zone 196—Fort Worth, Texas, Application for Subzone Expansion TTI, Inc., Fort Worth, Texas

An application has been submitted to the Foreign-Trade Zones (FTZ) Board by Alliance Corridor, Inc., grantee of FTZ 196, requesting expanded subzone status for the facilities of TTI, Inc., located in Fort Worth, Texas. The application was submitted pursuant to the provisions of the Foreign-Trade Zones Act, as amended (19 U.S.C. 81a–81u), and the regulations of the FTZ Board (15 CFR part 400). It was formally docketed on February 15, 2022.

The proposed subzone site (3.6 acres) is located at 5050 Mark IV Parkway, Fort Worth, Texas. No authorization for production activity has been requested at this time. The proposed expanded subzone would be subject to the existing activation limit of FTZ 196. Because the proposed new site is located outside of FTZ 196's Alternative Site Framework (ASF) service area, authorization for the expanded subzone would not be under the ASF

In accordance with the FTZ Board's regulations, Camille Evans of the FTZ Staff is designated examiner to review the application and make recommendations to the Executive Secretary.

Public comment is invited from interested parties. Submissions shall be addressed to the FTZ Board's Executive Secretary and sent to: *ftz@trade.gov.* The closing period for their receipt is April 4, 2022. Rebuttal comments in response to material submitted during the foregoing period may be submitted during the subsequent 15-day period to April 18, 2022.

A copy of the application will be available for public inspection in the ''Online FTZ Information Section'' section of the FTZ Board's website, which is accessible via *www.trade.gov/ftz.*

For further information, contact Camille Evans at *Camille.Evans@trade.gov.*

Dated: February 16, 2022.

Andrew McGilvray,

Executive Secretary.

[FR Doc. 2022–03676 Filed 2–18–22; 8:45 am]

BILLING CODE 3510–DS–P

DEPARTMENT OF COMMERCE

Foreign-Trade Zones Board

[Order No. 2123]

Approval of Subzone Status, OBlockz LLC, Lawrence, Massachusetts

Pursuant to its authority under the Foreign-Trade Zones Act of June 18, 1934, as amended (19 U.S.C. 81a–81u), the Foreign-Trade Zones Board (the Board) adopts the following Order:

Whereas, the Foreign-Trade Zones (FTZ) Act provides for ''. . . the establishment . . . of foreign-trade zones in ports of entry of the United States, to expedite and encourage foreign commerce, and for other purposes,'' and authorizes the Foreign-Trade Zones Board to grant to qualified corporations the privilege of establishing foreign-trade zones in or adjacent to U.S. Customs and Border Protection ports of entry;

Whereas, the Board's regulations (15 CFR part 400) provide for the establishment of subzones for specific uses;

Whereas, the Massachusetts Port Authority, grantee of Foreign-Trade Zone 27, has made application to the Board for the establishment of a subzone at the facility of OBlockz LLC, located in Lawrence, Massachusetts (FTZ Docket B–65–2021, docketed September 23, 2021);

Whereas, notice inviting public comment has been given in the **Federal Register** (86 FR 53945–53946, September 29, 2021) and the application has been processed pursuant to the FTZ Act and the Board's regulations; and,

Whereas, the Board adopts the findings and recommendations of the examiner's memorandum, and finds that the requirements of the FTZ Act and the Board's regulations are satisfied;

Now, therefore, the Board hereby approves subzone status at the facility of OBlockz LLC, located in Lawrence, Massachusetts (Subzone 27S), as described in the application and **Federal Register** notice, subject to the FTZ Act and the Board's regulations, including Section 400.13.

Dated: Feb. 15, 2022.

Lisa W. Wang,

Assistant Secretary for Enforcement and Compliance, Alternate Chairperson, Foreign-Trade Zones Board.

[FR Doc. 2022–03675 Filed 2–18–22; 8:45 am]

BILLING CODE 3510–DS–P

DEPARTMENT OF COMMERCE

International Trade Administration

[A–533–502]

Certain Welded Carbon Steel Standard Pipes and Tubes From India: Initiation of Circumvention Inquiry on the Antidumping Duty Order

AGENCY: Enforcement and Compliance, International Trade Administration, Department of Commerce.

SUMMARY: In response to a request from Bull Moose Tube Company (Bull Moose), Nucor Tubular Products Inc. (Nucor Tubular), Wheatland Tube Company (Wheatland) and the United Steel, Paper and Forestry, Rubber, Manufacturing, Energy, Allied Industrial and Service Workers International Union, AFL–CIO, CLC (the USW) (collectively, the domestic interested parties), the Department of Commerce (Commerce) is initiating a country-wide circumvention inquiry to determine whether imports of certain welded carbon steel standard pipes and tubes (pipe and tube), which are completed in Oman and the United Arab Emirates (UAE) from hot-rolled steel (HRS) produced in India, are circumventing the antidumping duty (AD) order on pipe and tube from India.

DATES: Applicable February 22, 2022.

FOR FURTHER INFORMATION CONTACT: Jacob Keller, AD/CVD Operations, Office I, Enforcement and Compliance, International Trade Administration, U.S. Department of Commerce, 1401 Constitution Avenue NW, Washington, DC 20230; telephone: (202) 482–4849.

SUPPLEMENTARY INFORMATION:

Background

On December 16, 2021, pursuant to section 781(b) of the Tariff Act of 1930, as amended (the Act) and 19 CFR 351.226(c) domestic interested parties filed a circumvention inquiry request alleging that pipe and tube completed in Oman and the UAE using HRS manufactured in India are circumventing the *Order*[1] and, accordingly, should be included within the scope of the *Order*.[2] On December 24, 2021, Al Jazeera Steel Products Co. SAOG (Al Jazeera) filed opposition comments in response to the domestic interested parties' request.[3] On January 5, 2022, the domestic interested parties filed rebuttal comments regarding Al Jazeera's opposition comments.[4] On January 11, 2022, Universal Tube and Plastic Industries, Ltd.; KHK Scaffolding and Formwork LLC; and THL Pipe and Tube Industries LLC (collectively, Universal) filed opposition comments.[5] On January 13, 2022, Conares Metal Supply Limited (Conares) filed opposition comments.[6]

On January 6, 2022, we issued a supplemental questionnaire to the domestic interested parties regarding their circumvention inquiry request.[7] On January 18, 2022, the domestic interested parties filed their response to our supplemental questionnaire.[8] On January 24 and 25, 2022, Universal, Ajmal Steel Tubes and Pipes Ind., LLC, and K.D Industries Inc. (UAE Producers), and Conares filed additional opposition comments, respectively.[9]

On January 11, 2022, we extended the deadline to initiate these circumvention inquiries by 15 days, in accordance with 19 CFR 351.226(d)(1).[10] On January 28,

[1] *See Antidumping Duty Order; Certain Welded Carbon Steel Standard Pipes and Tubes from India,* 51 FR 17384 (May 12, 1986) (*Order*).

[2] *See* Domestic Interested Parties' Letter, ''Certain Welded Carbon Steel Standard Pipes and Tubes from India: Request for an Anti-Circumvention Inquiry,'' dated December 16, 2021.

[3] *See* Al Jazeera's Letter, ''Welded Carbon Steel Standard Pipe from India; Al Jazeera Comments on Petitioners' Request for Anti-circumvention Inquiry,'' dated December 24, 2021.

[4] *See* Domestic Interested Parties' Letter, ''Certain Welded Carbon Steel Standard Pipes and Tubes from India: Response to Al Jazeera's Comments on Request for Anti-Circumvention Inquiry,'' dated January 5, 2022.

[5] *See* Universal's Letter, ''Certain Welded Carbon Steel Standard Pipes and Tubes from India—Response to Domestic Interested Parties' Request for an Anti-Circumvention Inquiry,'' dated January 11, 2022.

[6] *See* Conares' Letter, ''Welded Carbon Steel Standard Pipe from India: Comments on Anti-Circumvention Inquiry,'' dated January 13, 2022.

[7] *See* Commerce's Letter, ''Anti-Circumvention Inquiry of Certain Welded Carbon Steel Standard Pipe and Tube from India: Supplemental Questionnaire,'' dated January 6, 2022.

[8] *See* Domestic Interested Parties' Letter, ''Certain Welded Carbon Steel Standard Pipes and Tubes from India: Response to Supplemental Questionnaire,'' dated January 18, 2022.

[9] *See* UAE Producers' Letter, ''Certain Welded Carbon Steel Standard Pipes and Tubes from India—Additional Information to Support a Rejection of an Anti-Circumvention Inquiry Request,'' dated January 14, 2022; *see also* Conares' Letter, ''Welded Carbon Steel Standard Pipe from India: Rebuttal and Comments on Domestic Interested Parties' Supplemental Response,'' dated January 25, 2022.

[10] *See* Memoranda, ''Certain Welded Steel Carbon Standard Pipes and Tubes from India: Extension of Time to Determine Whether to Initiate Anti-Circumvention Inquiry,'' dated January 11, 2022;

Continued

2022, we extended, for good cause, the deadline to initiate by an additional 15 days in accordance with 19 CFR 351.302(b).[11]

Scope of the Order

The products covered by the *Order* include certain welded carbon steel standard pipes and tubes with an outside diameter of 0.375 inch or more but not over 16 inches. These products are commonly referred to in the industry as standard pipes and tubes produced to various American Society for Testing Materials (ASTM) specifications, most notably A–53, A–120, or A–135. The antidumping duty order on certain welded carbon steel standard pipes and tubes from India, published on May 12, 1986, included standard scope language which used the import classification system as defined by Tariff Schedules of the United States, Annotated (TSUSA).

The United States developed a system of tariff classification based on the international harmonized system of customs nomenclature. On January 1, 1989, the U.S. tariff schedules were fully converted from the TSUSA to the Harmonized Tariff Schedule (HTS). *See, e.g., Certain Welded Carbon Steel Standard Pipes and Tubes from India; Preliminary Results of Antidumping Duty Administrative Reviews,* 56 FR 26650, 26651 (June 10, 1991). As a result of this transition, the scope language we used in the 1991 **Federal Register** notice is slightly different from the scope language of the original final determination and antidumping duty order.

Until January 1, 1989, such merchandise was classifiable under item numbers 610.3231, 610.3234, 610.3241, 610.3242, 610.3243, 610.3252, 610.3254, 610.3256, 610.3258, and 610.4925 of the TSUSA. This merchandise is currently classifiable under HTS subheadings 7306.30.1000, 7306.30.5025, 7306.30.5032, 7306.30.5040, 7306.30.5055, 7306.30.5085, 7306.30.5090. As with the TSUSA item numbers, the HTS subheadings are provided for convenience and customs purposes.

The written product description remains dispositive.

Merchandise Subject to the Circumvention Inquiry

This circumvention inquiry covers pipe and tube completed in Oman and the UAE using India-origin HRS and subsequently exported from Oman and the UAE to the United States.

Initiation of Circumvention Inquiry

Section 351.226(d) of Commerce's regulations states that if Commerce determines that a request for a circumvention inquiry satisfies the requirements of 19 CFR 351.226(c), then Commerce ''will accept the request and initiate a circumvention inquiry.'' Section 351.226(c)(1) of Commerce's regulations, in turn, requires that each circumvention inquiry request allege ''that the elements necessary for a circumvention determination under section 781 of the Act exist'' and be ''accompanied by information reasonably available to the interested party supporting these allegations.''

Section 781(b)(1) of the Act provides that Commerce may find circumvention of an AD order when merchandise of the same class or kind subject to the order is completed or assembled in a foreign country other than the country to which the order applies. In conducting a circumvention inquiry, under section 781(b)(1) of the Act, Commerce relies on the following criteria: (A) Merchandise imported into the United States is of the same class or kind as any merchandise produced in a foreign country that is the subject of an antidumping or countervailing duty order or finding; (B) before importation into the United States, such imported merchandise is completed or assembled in another foreign country from merchandise which is subject to the order or merchandise which is produced in the foreign country that is subject to the order; (C) the process of assembly or completion in the foreign country referred to in section (B) is minor or insignificant; (D) the value of the merchandise produced in the foreign country to which the AD or countervailing duty order applies is a significant portion of the total value of the merchandise exported to the United States; and (E) the administering authority determines that action is appropriate to prevent evasion of such order or finding.

In determining whether the process of assembly or completion in a third country is minor or insignificant under section 781(b)(1)(C) of the Act, section 781(b)(2) of the Act directs Commerce to consider: (A) The level of investment in the foreign country; (B) the level of research and development in the foreign country; (C) the nature of the production process in the foreign country; (D) the extent of production facilities in the foreign country; and (E) whether or not the value of processing performed in the foreign country represents a small proportion of the value of the merchandise imported into the United States. However, no single factor, by itself, controls Commerce's determination of whether the process of assembly or completion in a third country is minor or insignificant.[12] Accordingly, it is Commerce's practice to evaluate each of these five factors as they exist in the third country, depending on the totality of the circumstances of the particular circumvention inquiry.[13]

In addition, section 781(b)(3) of the Act sets forth additional factors to consider in determining whether to include merchandise assembled or completed in a third country within the scope of an antidumping or countervailing duty order. Specifically, Commerce shall take into account such factors as: (A) The pattern of trade, including sourcing patterns; (B) whether the manufacturer or exporter of the merchandise is affiliated with the person who, in the third country, uses the merchandise to complete or assemble the merchandise which is subsequently imported into the United States; and (C) whether imports of the merchandise into the third country have increased after the initiation of the investigation that resulted in the issuance of such order or finding.

Based on our analysis of the domestic interested parties' circumvention request, Commerce determines that the domestic interested parties have satisfied the criteria under 19 CFR 351.226(c) to warrant the initiation of a circumvention inquiry of the *Order.* For a full discussion of the basis for our decision to initiate this circumvention inquiry, *see* the Circumvention Initiation Memo.[14] As explained in the Circumvention Initiation Memo, the information provided by domestic interested parties warrants initiating

and ''Certain Welded Steel Carbon Standard Pipes and Tubes from India: Revised Extension of Time to Determine Whether to Initiate Anti-Circumvention Inquiry,'' dated January 12, 2022.

[11] *See* Memorandum, ''Certain Welded Carbon Steel Standard Pipes and Tubes from India: Extension of Time to Determine Whether to Initiate Anti-Circumvention Inquiry,'' dated January 28, 2022.

[12] *See* Statement of Administrative Action accompanying the Uruguay Round Agreements Act (SAA), H.R. Doc. No. 103–316 (1994) at 893.

[13] *See Uncovered Innerspring Units from the People's Republic of China: Final Affirmative Determination of Circumvention of the Antidumping Duty Order,* 83 FR 65626 (December 21, 2018), and accompanying Issues and Decision Memorandum at 4.

[14] *See* Memorandum, ''Certain Welded Carbon Steel Standard Pipes and Tubes from India: Initiation of Circumvention Inquiries on the Antidumping Duty Order,'' dated concurrently with, and hereby adopted by, this notice (Circumvention Initiation Memo). This memo is a public document and available electronically online via ACCESS.

this circumvention inquiry on a country-wide basis. Commerce has taken this approach in prior circumvention inquiries, where the facts warranted initiation on a country-wide basis.[15]

Consistent with the approach in the prior circumvention inquiries that were initiated on a country-wide basis, Commerce intends to issue questionnaires to solicit information from producers and exporters in Oman and the UAE concerning their shipments of pipe and tube made from India-origin HRS to the United States. A company's failure to respond completely to Commerce's requests for information may result in the application of partial or total facts available, pursuant to section 776(a) of the Act, which may include adverse inferences, pursuant to section 776(b) of the Act.

Suspension of Liquidation

Pursuant to 19 CFR 351.226(l)(1), Commerce will notify U.S. Customs and Border Protection (CBP) of the initiation and direct CBP to continue the suspension of liquidation of entries of products subject to the circumvention inquiry that were already subject to the suspension of liquidation under the *Order.* Should Commerce issue preliminary or final circumvention determinations, Commerce will follow the suspension of liquidation rules under 19 CFR 351.226(l)(2)–(4).

Notification to Interested Parties

In accordance with 19 CFR 351.226(d) and section 781(b) of the Act, Commerce determines that the domestic interested parties' request for this circumvention inquiry satisfies the requirements of 19 CFR 351.226(c). Accordingly, Commerce is notifying all interested parties of the initiation of this circumvention inquiry to determine whether certain imports of pipe and tube, completed in and exported from Oman and the UAE using HRS inputs manufactured in India, are circumventing the *Order.* In addition, we have included a description of the products that are the subject of this inquiry, and an explanation of the reasons for Commerce's decision to initiate this inquiry as provided above and in the accompanying Circumvention Initiation Memo.[16] In accordance with 19 CFR 351.226(e)(2), Commerce intends to issue its final circumvention determination within 300 days from the date of publication of the notice of initiation of a circumvention inquiry in the **Federal Register**.

This notice is published in accordance with section 781(b) of the Act and 19 CFR 351.226(d)(1)(ii).

Dated: February 14, 2022.

Lisa W. Wang,

Assistant Secretary for Enforcement and Compliance.

Appendix

List of Topics Discussed in the Circumvention Initiation Memo

[FR Doc. 2022–03661 Filed 2–18–22; 8:45 am]

BILLING CODE 3510–DS–P

DEPARTMENT OF COMMERCE

International Trade Administration

[A–570–119]

Initiation of Antidumping Duty Changed Circumstances Review: Certain Vertical Shaft Engines Between 225cc and 999cc, and Parts Thereof From the People's Republic of China

AGENCY: Enforcement and Compliance, International Trade Administration, Department of Commerce.

SUMMARY: Based on a request from Honda Power Products (China) Co., Ltd. (Honda), the Department of Commerce (Commerce) is initiating a changed circumstances review (CCR) of the antidumping duty (AD) order on certain vertical shaft engines between 225cc and 999cc, and parts thereof (vertical shaft engines) from the People's Republic of China (China).

DATES: Applicable February 22, 2022.

FOR FURTHER INFORMATION CONTACT: Leo Ayala, AD/CVD Operations, Office VII, Enforcement and Compliance, International Trade Administration, U.S. Department of Commerce, 1401 Constitution Avenue NW, Washington, DC 20230; telephone: (202) 482–3945.

SUPPLEMENTARY INFORMATION:

Background

On March 4, 2021, Commerce published in the **Federal Register** an amended *final* AD determination and order on vertical shaft engines from China.[1] In the *Amended Final Determination,* Commerce determined an AD cash deposit rate for Jialing-Honda Motors Co., Ltd. (Jialing) of 261.93 percent.[2]

On September 20, 2021, Honda informed Commerce that, as of July 1, 2020, Jialing changed its name to Honda Power Products (China) Co., Ltd.[3] Honda stated the change was in name only and that its business operations remain substantially unchanged.[4] Honda requested that Commerce conduct a CCR and find that Honda is the successor-in-interest to Jialing and assign Jialing's AD cash deposit rate for vertical shaft engines from China to Honda, pursuant to section 751(b) of the Tariff Act of 1930, as amended (the Act), and 19 CFR 351.216(b).[5] Honda made arguments as to why good cause exists for initiating a CCR pursuant to 19 CFR 351.216(c)[6] and also requested that Commerce combine the notice of initiation with a preliminary results of the CCR pursuant to 19 CFR 351.221(c)(3)(ii).

On November 21, 2021, Commerce deemed Honda's request deficient and issued a supplemental questionnaire to Honda requesting additional information.[7] On December 31, 2021,

[15] *See, e.g., Certain Corrosion-Resistant Steel Products from the Republic of Korea and Taiwan: Initiation of Anti-Circumvention Inquiries on the Antidumping Duty and Countervailing Duty Orders,* 83 FR 37785 (August 2, 2018); *Carbon Steel Butt-Weld Pipe Fittings from the People's Republic of China: Initiation of Anti-Circumvention Inquiry on the Antidumping Duty Order,* 82 FR 40556, 40560 (August 25, 2017) (stating at initiation that Commerce would evaluate the extent to which a country-wide finding applicable to all exports might be warranted); and *Certain Corrosion-Resistant Steel Products from the People's Republic of China: Initiation of Anti-Circumvention Inquiries on the Antidumping Duty and Countervailing Duty Orders,* 81 FR 79454, 79458 (November 14, 2016) (stating at initiation that Commerce would evaluate the extent to which a country-wide finding applicable to all exports might be warranted).

[16] *See* Circumvention Initiation Memo.

[1] *See Certain Vertical Shaft Engines Between 225cc and 999cc, and Parts Thereof from the People's Republic of China: Amended Final Antidumping Duty Determination and Antidumping Duty Order,* 86 FR 12623 (March 4, 2021) (*Amended Final Determination* and *Order*); *see also Certain Large Vertical Shaft Engines Between 225cc and 999cc, and Parts Thereof, from the People's Republic of China: Notice of Correction to the Amended Final Antidumping Duty Determination and Antidumping Duty Order,* 86 FR 13694 (March 10, 2021).

[2] *Id.,* 86 FR at 12624.

[3] *See* Honda's Letter, ''Certain Vertical Shaft Engines Between 225cc and 999cc, and Parts Thereof from the People's Republic of China: Request for Changed Circumstances Review,'' dated September 20, 2021 (Honda's CCR Request).

[4] *Id.* at 2.

[5] *Id.*

[6] *Id.* at 6.

[7] *See* Commerce's Letter, ''Certain Vertical Shaft Engines Between 225cc and 999cc, and Parts Thereof from the People's Republic of China: Changed Circumstances Review; Supplemental Questionnaire,'' dated November 1, 2021.

Honda submitted its response to the supplemental questionnaire.[8] We received no comments from interested parties regarding Honda's CCR Request.

Scope of the Order

The merchandise covered by the *Order* is vertical shaft engines. For a complete description of the scope, *see* the appendix.

Initiation of Changed Circumstances Review

Pursuant to section 751(b)(1)(A) of the Act and 19 CFR 351.216(d), Commerce will conduct a CCR upon receipt of a request from an interested party for a review of an AD order which shows changed circumstances sufficient to warrant a review of the order. In the past, Commerce has used CCRs to address the applicability of cash deposit rates after there have been changes in the name or structure of a respondent, such as a merger or spinoff (*i.e.,* a successor-in-interest determination).[9] The information submitted by Honda supporting its claim that it is the successor-in-interest to Jialing demonstrates changed circumstances sufficient to warrant the initiation of such a review.[10]

Section 751(b)(4)(B) of the Act and 19 CFR 351.216(c) state that, ''in the absence of good cause shown,'' the Secretary of Commerce may not review a final determination less than 24 months after the date of publication of the notice of final determination or notice of suspension of an investigation. The final determination in the less-than-fair-value investigation of vertical shaft engines from China published on January 11, 2021.[11] Therefore, Commerce must also determine whether good cause exists to conduct this review.

Honda asserts that good cause exists because, aside from the name change, it made no changes with respect to ''production, management, customer and supplier relationships or any other aspect of operations.'' [12] Honda argues that a CCR is needed to ensure the appropriate cash deposit rate applies to Honda's entries and that Commerce has previously found in similar situations that a name change, with no further changes in the company's operations, constitutes good cause pursuant to 19 CFR 351.216(c) to initiate a CCR.[13] Based on this explanation, we find that good cause has been shown pursuant to 19 CFR 351.216(c) to initiate a CCR, and conducting this review ensures that the appropriate cash deposit rate applies to Honda.

Therefore, in accordance with section 751(b)(1)(A) of the Act and 19 CFR 351.216(d), we are initiating a CCR based on the information contained in Honda's submission.

Preliminary Results

Section 351.221(c)(3)(ii) of Commerce's regulations permits Commerce to combine the notice of initiation and preliminary results of a CCR if Commerce concludes that expedited action is warranted. However, we are not combining this notice of initiation with the preliminary results because Commerce has determined that it is necessary to issue an additional supplemental questionnaire to Honda regarding Honda's customer base and supplier relationships and to provide interested parties with an opportunity to comment. Commerce intends to publish in the **Federal Register** a notice of the preliminary results of this CCR in accordance with 19 CFR 351.221(b)(4). Consistent with 19 CFR 351.221(c)(3)(i), Commerce will set forth its preliminary factual and legal conclusions in that notice.

Final Results

Unless extended, Commerce intends to issue the final results of this CCR within 270 days of the day of initiation of this CCR, in accordance with 19 CFR 351.216(e).

Notification to Interested Parties

This notice is published in accordance with section 751(b)(1) of the Act, and 19 CFR 351.216(b) and 19 CFR 351.221(b)(1).

Dated: February 14, 2022.

Lisa W. Wang,

Assistant Secretary for Enforcement and Compliance.

Appendix—Scope of the Order

The merchandise covered by this order consists of spark-ignited, non-road, vertical shaft engines, whether finished or unfinished, whether assembled or unassembled, primarily for riding lawn mowers and zero-turn radius lawn mowers. Engines meeting this physical description may also be for other non-hand-held outdoor power equipment such as, including but not limited to, tow-behind brush mowers, grinders, and vertical shaft generators. The subject engines are spark ignition, single or multiple cylinder, air cooled, internal combustion engines with vertical power take off shafts with a minimum displacement of 225 cubic centimeters (cc) and a maximum displacement of 999cc. Typically, engines with displacements of this size generate gross power of between 6.7 kilowatts (kw) to 42 kw.

Engines covered by this scope normally must comply with and be certified under Environmental Protection Agency (EPA) air pollution controls title 40, chapter I, subchapter U, part 1054 of the Code of Federal Regulations standards for small non-road spark-ignition engines and equipment. Engines that otherwise meet the physical description of the scope but are not certified under 40 CFR part 1054 and are not certified under other parts of subchapter U of the EPA air pollution controls are not excluded from the scope of this proceeding. Engines that may be certified under both 40 CFR part 1054 as well as other parts of subchapter U remain subject to the scope of this proceeding.

For purposes of this order, an unfinished engine covers at a minimum a sub-assembly comprised of, but not limited to, the following components: Crankcase, crankshaft, camshaft, piston(s), and connecting rod(s). Importation of these components together, whether assembled or unassembled, and whether or not accompanied by additional components such as an oil pan, manifold, cylinder head(s), valve train, or valve cover(s), constitutes an unfinished engine for purposes of this order. The inclusion of other products such as spark plugs fitted into the cylinder head or electrical devices (*e.g.,* ignition modules, ignition coils) for synchronizing with the motor to supply tension current does not remove the product from the scope. The inclusion of any other components not identified as comprising the unfinished engine subassembly in a third country does not remove the engine from the scope.

The engines subject to this order are typically classified in the Harmonized Tariff Schedule of the United States (HTSUS) at subheadings: 8407.90.1020, 8407.90.1060, and 8407.90.1080. The engine subassemblies that are subject to this order enter under HTSUS subheading 8409.91.9990. Engines subject to this order may also enter under HTSUS subheading 8407.90.9060 and 8407.90.9080. The HTSUS subheadings are provided for convenience and customs purposes only, and the written description of

[8] *See* Honda's Letter, ''Certain Vertical Shaft Engines Between 225cc and 999cc, and Parts Thereof from the People's Republic of China: Changed Circumstances Review; Supplemental Questionnaire,'' dated December 31, 2021.

[9] *See, e.g., Diamond Sawblades and Parts Thereof from the People's Republic of China: Initiation and Preliminary Results of Antidumping Duty Changed Circumstances Review,* 82 FR 51605, 51606 (November 7, 2017), unchanged in *Diamond Sawblades and Parts Thereof from the People's Republic of China: Final Results of Antidumping Duty Changed Circumstances Review,* 82 FR 60177 (December 19, 2017).

[10] *See* 19 CFR 351.216(d).

[11] *See Certain Vertical Shaft Engines Between 225cc and 999cc, and Parts Thereof from the People's Republic of China: Final Affirmative Determination of Sales at Less Than Fair Value and Final Affirmative Critical Circumstances Determination,* 86 FR 1936 (January 11, 2021).

[12] *See* Honda's CCR Request at 4.

[13] *Id.* at 5–6 (citing *Notice of Initiation and Preliminary Results of Antidumping Duty Changed Circumstances Review: Certain Passenger Vehicle and Light Truck Tires from the People's Republic of China,* 81 FR 44588 (July 8, 2016); and *Cast Iron Soil Pipe Fittings from the People's Republic of China: Initiation and Preliminary Results of Changed Circumstances Reviews,* 84 FR 64263 (November 21, 2019)).

the merchandise subject to this order is dispositive.

[FR Doc. 2022–03659 Filed 2–18–22; 8:45 am]

BILLING CODE 3510–DS–P

DEPARTMENT OF COMMERCE

International Trade Administration

[A–570–832]

Pure Magnesium From the People's Republic of China: Final Results of Antidumping Duty Administrative Review; 2020–2021

AGENCY: Enforcement and Compliance, International Trade Administration, Department of Commerce.

SUMMARY: The Department of Commerce (Commerce) continues to find that Tianjin Magnesium International Co., Ltd. (TMI) and Tianjin Magnesium Metal Co., Ltd. (TMM) (collectively, TMI/TMM) had no shipments of subject merchandise covered by the antidumping duty order on pure magnesium from the People's Republic of China (China) for the period of review (POR) May 1, 2020, through April 30, 2021.

DATES: Applicable February 22, 2022.

FOR FURTHER INFORMATION CONTACT: Deborah Cohen, AD/CVD Operations, Office III, Enforcement and Compliance, International Trade Administration, U.S. Department of Commerce, 1401 Constitution Avenue NW, Washington, DC 20230; telephone: (202) 482–4521.

SUPPLEMENTAL INFORMATION:

Background

On November 15, 2021, Commerce published the *Preliminary Results* of this administrative review in the **Federal Register**.[1] No interested party submitted comments concerning the *Preliminary Results* or requested a hearing in this administrative review. Commerce conducted this administrative review in accordance with section 751 of the Tariff Act of 1930, as amended (the Act).

Scope of the Order [2]

The product covered by the *Order* is pure magnesium from China, regardless of chemistry, form or size, unless expressly excluded from the scope of the *Order.* Pure magnesium is a metal or alloy containing by weight primarily the element magnesium and produced by decomposing raw materials into magnesium metal. Pure primary magnesium is used primarily as a chemical in the aluminum alloying, desulfurization, and chemical reduction industries. In addition, pure magnesium is used as an input in producing magnesium alloy. Pure magnesium encompasses products (including, but not limited to, butt ends, stubs, crowns and crystals) with the following primary magnesium contents:

(1) Products that contain at least 99.95% primary magnesium, by weight (generally referred to as ''ultra pure'' magnesium) Magnesium Alloy'' [3] and are thus outside the scope of the existing antidumping orders on magnesium from China (generally referred to as ''alloy'' magnesium).

(2) Products that contain less than 99.95%, but not less than 99.8%, primary magnesium, by weight (generally referred to as ''pure'' magnesium); and

(3) Products that contain 50% or greater, but less than 99.8% primary magnesium, by weight, and that do not conform to ASTM specifications for alloy magnesium (generally referred to as ''off-specification pure'' magnesium).

''Off-specification pure'' magnesium is pure primary magnesium containing magnesium scrap, secondary magnesium, oxidized magnesium or impurities (whether or not intentionally added) that cause the primary magnesium content to fall below 99.8% by weight. It generally does not contain, individually or in combination, 1.5% or more, by weight, of the following alloying elements: Aluminum, manganese, zinc, silicon, thorium, zirconium and rare earths.

Excluded from the scope of the *Order* are alloy primary magnesium (that meets specifications for alloy magnesium), primary magnesium anodes, granular primary magnesium (including turnings, chips and powder) having a maximum physical dimension (*i.e.,* length or diameter) of one inch or less, secondary magnesium (which has pure primary magnesium content of less than 50% by weight), and remelted magnesium whose pure primary magnesium content is less than 50% by weight.

Pure magnesium products covered by the *Order* are currently classifiable under Harmonized Tariff Schedule of the United States (HTSUS) subheadings 8104.11.00, 8104.19.00, 8104.20.00, 8104.30.00, 8104.90.00, 3824.90.11, 3824.90.19 and 9817.00.90. Although the HTSUS subheadings are provided for convenience and customs purposes, the written description of the scope is dispositive.

Final Determination of No Shipments

In the *Preliminary Results,* Commerce determined TMI/TMM had no shipments of subject merchandise to the United States during the POR.[4] As noted in the *Preliminary Results,* we received no-shipment statements from TMI/TMM,[5] and the statements were consistent with the information we received from U.S. Customs and Border Protection (CBP).[6] Because Commerce did not receive any comments on its preliminary finding, Commerce continues to find that TMI/TMM did not have any shipments of subject merchandise during the POR.

Assessment Rates

Based on record evidence, we have determined that TMI/TMM had no shipments of subject merchandise during the POR, and, therefore, pursuant to Commerce's assessment practice, any suspended entries entered under their case number will be liquidated at the China-wide entity rate.[7]

Commerce intends to issue assessment instructions to CBP no earlier than 35 days after the date of publication of the final results of this review in the **Federal Register**. If a timely summons is filed at the U.S. Court of International Trade, the assessment instructions will direct CBP not to liquidate relevant entries until the time for parties to file a request for a statutory injunction has expired (*i.e.,* within 90 days of publication).

Cash Deposit Requirements

The following cash deposit requirements will be effective upon publication of the final results of this administrative review for all shipments of the subject merchandise entered, or

[1] *See Pure Magnesium from the People's Republic of China: Preliminary Results of Antidumping Administrative Review; 2020–2021,* 86 FR 62990 (November 15, 2021) (*Preliminary Results*).

[2] *See Notice of Antidumping Duty Orders: Pure Magnesium from the People's Republic of China, the Russian Federation and Ukraine; Notice of Amended Final Determination of Sales at Less Than Fair Value: Antidumping Duty Investigation of Pure Magnesium from the Russian Federation,* 60 FR 25691 (May 12, 1995) (*Order*).

[3] The meaning of this term is the same as that used by the American Society for Testing and Materials (ATSM) in its Annual Book for ASTM Standards: Volume 01.02 Aluminum and Magnesium Alloys.

[4] *See Preliminary Results,* 86 FR 62990.

[5] *See Preliminary Results,* 86 FR 62990.

[6] *See* Memorandum, ''Antidumping Duty Administrative Review of Pure Magnesium from the People's Republic of China; 05/01/2020–04/30/2021: Entry Data and No Shipment Inquiry,'' dated August 31, 2021. On August 3, 2021, Commerce issued a no shipment inquiry to U.S. Customs and Border Protection (CBP) with respect to TMI/TMM. On August 4, 2021, CBP responded that it had no evidence of shipments of magnesium metal from China exported by TMI/TMM during the POR.

[7] *See Non-Market Economy Antidumping Proceedings: Assessment of Antidumping Duties,* 76 FR 65694 (October 24, 2011).

withdrawn from warehouse, for consumption on or after the publication date of the final results of review, as provided for by section 751(a)(2)(C) of the Act: (1) For TMI/TMM, which claimed no shipments, the cash deposit rate will remain unchanged from the rate assigned to TMI/TMM in the most recently completed review of the companies; (2) for previously investigated or reviewed Chinese and non-Chinese exporters who are not under review in this segment of the proceeding but who have separate rates, the cash deposit rate will continue to be the exporter-specific rate published for the most recent period; (3) for all Chinese exporters of subject merchandise that have not been found to be entitled to a separate rate, the cash deposit rate will be the China-wide rate of 111.73 percent; [8] and (4) for all non-Chinese exporters of subject merchandise which have not received their own rate, the cash deposit rate will be the rate applicable to Chinese exporter(s) that supplied that non-Chinese exporter. These deposit requirements, when imposed, shall remain in effect until further notice.

Notification to Importers

This notice serves as a final reminder to importers of their responsibility under 19 CFR 351.402(f)(2) to file a certificate regarding the reimbursement of antidumping duties prior to liquidation of the relevant entries during this review period. Failure to comply with this requirement could result in Commerce's presumption that reimbursement of antidumping duties occurred and the subsequent assessment of doubled antidumping duties.

Notification Regarding Administrative Protection Order

This notice also serves as the only reminder to parties subject to administrative protective order (APO) of their responsibility concerning the disposition of proprietary information disclosed under APO in accordance with 19 CFR 351.305(a)(3). Timely written notification of the return of destruction of APO materials or conversion to judicial protective order is hereby requested. Failure to comply with the regulations and the terms of an APO is a sanctionable violation.

Notification to Interested Parties

This notice is issued and published in accordance with sections 751(a) and 777(i) of the Act, and 19 CFR 351.213(h).

Dated: February 14, 2022.

Lisa W. Wang,

Assistant Secretary for Enforcement and Compliance.

[FR Doc. 2022–03662 Filed 2–18–22; 8:45 am]

BILLING CODE 3510–DS–P

[8] *See Pure Magnesium from the People's Republic of China: Final Results of the 2008–2009 Antidumping Duty Administrative Review of the Antidumping Duty Order,* 75 FR 80791 (December 23, 2010).

DEPARTMENT OF COMMERCE

International Trade Administration

[A–570–139]

Certain Mobile Access Equipment and Subassemblies Thereof From the People's Republic of China: Final Affirmative Determination of Sales at Less Than Fair Value

AGENCY: Enforcement and Compliance, International Trade Administration, Department of Commerce.

SUMMARY: The Department of Commerce (Commerce) determines that certain mobile access equipment and subassemblies thereof (mobile access equipment) from the People's Republic of China (China) are being, or are likely to be sold, in the United States at less than fair value (LTFV).

DATES: Applicable February 22, 2022.

FOR FURTHER INFORMATION CONTACT: Hermes Pinilla or Andre Gziryan, AD/CVD Operations, Office I, Enforcement and Compliance, International Trade Administration, U.S. Department of Commerce, 1401 Constitution Avenue NW, Washington, DC 20230; telephone: (202) 482–3477 or (202) 482–2201, respectively.

SUPPLEMENTARY INFORMATION:

Background

On September 30, 2021, Commerce published in the **Federal Register** its preliminary determination in the LTFV investigation of mobile access equipment from China, in which it also postponed the final determination until February 14, 2022.[1] We invited interested parties to comment on the Preliminary Determination. For a summary of the events that occurred since Commerce published the Preliminary Determination, as well as a full discussion of the issues raised by parties for this final determination, *see* the Issues and Decision Memorandum.[2]

Period of Investigation

The period of investigation is July 1, 2020, through December 31, 2020.

Scope of the Investigation

The products covered by this investigation are mobile access equipment from China. For a complete description of the scope of this investigation, *see* Appendix I.

Scope Comments

On July 26, 2021, we issued a Preliminary Scope Decision Memorandum.[3] As discussed in the *Preliminary Determination*, Commerce did not modify the scope language as it appeared in the *Initiation Notice*.[4] Interested parties were provided an opportunity to comment on the Preliminary Scope Decision Memorandum in scope case and rebuttal briefs.[5] We received comments from interested parties on the Preliminary Scope Decision Memorandum, which we addressed in the Final Scope Decision Memorandum.[6] Commerce is modifying the scope language as it appeared in the *Preliminary Determination*. *See* Appendix I for the final scope of this investigation.

Verification

Commerce was unable to conduct on-site verification of the information relied upon in making its final determination in this investigation. However, we took additional steps in lieu of an on-site verification to verify the information provided by the two mandatory respondents, Zhejiang Dingli Machinery Co., Ltd. (Dingli) and Lingong Group Jinan Heavy Machinery

[1] *See Certain Mobile Access Equipment and Subassemblies Thereof from the People's Republic of China: Preliminary Affirmative Determination of Sales at Less Than Fair Value, Postponement of Final Determination, and Extension of Provisional Measures,* 86 FR 54164 (September 30, 2021) (Preliminary Determination), and accompanying Preliminary Decision Memorandum (PDM).

[2] *See* Memorandum, ''Certain Mobile Access Equipment and Subassemblies Thereof from the People's Republic of China: Decision Memorandum for the Final Affirmative Determination of Sales at Less-Than-Fair-Value,'' dated concurrently with, and hereby adopted by, this notice (Issues and Decision Memorandum).

[3] *See* Memorandum, ''Certain Mobile Access Equipment and Subassemblies Thereof from the People's Republic of China: Decision Memorandum for the Final Affirmative Determination of Sales at Less-Than-Fair-Value,'' dated concurrently with, and hereby adopted by, this notice (Issues and Decision Memorandum).

[4] *See Certain Mobile Access Equipment and Subassemblies Thereof from the People's Republic of China: Initiation of Less-Than-Fair-Value Investigation,* 86 FR 15922, 15927 (March 25, 2021) (*Initiation Notice*).

[5] *See* Preliminary Scope Decision Memorandum at 2.

[6] *See* Memorandum, ''Antidumping Duty and Countervailing Duty Investigations of Certain Mobile Access Equipment and Subassemblies Thereof from the People's Republic of China: Final Scope Decision Memorandum,'' dated October 12, 2021 (Final Scope Decision Memorandum).

Co., Ltd. (LGMG) we relied upon in making this final determination, in accordance with section 782(i) of the Tariff Act of 1930, as amended (the Act).[7]

Analysis of Comments Received

All issues raised in the case and rebuttal briefs that were submitted by interested parties in this investigation are addressed in the Issues and Decision Memorandum. For a list of the issues raised by interested parties and addressed in the Issues and Decision Memorandum, see Appendix II to this notice. The Issues and Decision Memorandum is a public document and is available electronically via Enforcement and Compliance's Antidumping and Countervailing Duty Centralized Electronic Service System (ACCESS). ACCESS is available to registered users at *https://access.trade.gov*. In addition, a complete version of the Issues and Decision Memorandum can be accessed directly at *https://access.trade.gov/public/FRNoticesListLayout.aspx*.

China-Wide Entity and Use of Adverse Facts Available

For the reasons explained in the *Preliminary Determination*, we continue to find that the use of adverse facts available (AFA), pursuant to sections 776(a) and (b) of the Act, is warranted in determining the rate for the China-wide entity.[8] In selecting the AFA rate for the China-wide entity, Commerce's practice it to select a rate that is sufficiently adverse to ensure that the uncooperative party does not obtain a more favorable result by failing to cooperate than if it had fully cooperated.[9] As AFA, we assigned the China-wide entity a dumping margin of 165.30 percent, which is the highest calculated rate in this investigation. Because this constitutes primary information, the statutory corroboration requirement in section 776(c) of the Act does not apply.

Changes Since the Preliminary Determination

Based on our analysis of the comments received, we made certain changes to the margin calculations for Dingli and LGMG. For a discussion of these changes, *see* the ''Changes from the *Preliminary Determination*'' section of the Issues and Decision Memorandum.

Separate Rates

For the final determination, we continue to find that Dingli and LGMG are eligible for separate rates. Generally, Commerce looks to section 735(c)(5)(A) of the Act, which provides instructions for calculating the all-others rate in an investigation, for guidance when calculating the rate for separate rate respondents which we did not individually examine. Because the calculated dumping margins of the mandatory respondents, Dingli and LGMG, are not zero, *de minimis* , or based entirely on facts available, consistent with section 735(c)(5)(A) of the Act and our practice,[10] based on publicly ranged sales data, we assigned the weighted average of these mandatory respondents' margins to all non-individually examined companies that qualified for a separate rate.

Combination Rates

In the *Initiation Notice*,[11] Commerce stated that it would calculate producer/exporter combination rates for the respondents that are eligible for a separate rate in this investigation. For the list of respondents that established eligibility for separate rates and the exporter/producer combination rates applicable to these respondents, *see* the Final Determination section.

Final Determination

Commerce determines that the estimated weighted-average dumping margins are as follows:

Exporter	Producer	Estimated weighted-average dumping margin (percent)	Cash deposit rate (adjusted for subsidy offsets) (percent)
Lingong Group Jinan Heavy Machinery Co., Ltd	Lingong Group Jinan Heavy Machinery Co., Ltd	165.30	165.10
Zhejiang Dingli Machinery Co., Ltd	Zhejiang Dingli Machinery Co., Ltd	31.70	31.54

SEPARATE RATE APPLICABLE TO THE FOLLOWING NON-SELECTED COMPANIES

Non-selected exporter receiving a separate rate	Producer supplying the non-selected exporter receiving a separate rate	Estimated weighted-average dumping margin (percent)	Cash deposit rate (adjusted for subsidy offsets) (percent)
Hunan Sinoboom Intelligent Equipment Co., Ltd	Hunan Sinoboom Intelligent Equipment Co., Ltd	51.83	51.66
Mantall Heavy Industry Co., Ltd	Mantall Heavy Industry Co., Ltd	51.83	51.66
Noblelift Intelligent Equipment Co., Ltd	Noblelift Intelligent Equipment Co., Ltd	51.83	51.66
Oshkosh JLG (Tianjin) Equipment Technology Co., Ltd.	Noblelift Intelligent Equipment Co., Ltd	51.83	51.66
Sany Marine Heavy Industry Co., Ltd	Sany Marine Heavy Industry Co., Ltd	51.83	51.66
Terex (Changzhou) Machinery Co., Ltd	Terex (Changzhou) Machinery Co, Ltd	51.83	51.66
Xuzhou Construction Machinery Group Imp. & Exp. Co., Ltd.	Xuzhou Construction Machinery Group Fire-Fighting Safety Equipment Co., Ltd.	51.83	51.66
China-Wide Entity		165.30	165.14

[7] *See* Commerce's Letters, ''In-lieu of on-site Verification Questionnaire,'' dated November 1, 2021; and, ''In-lieu of on-site Verification Questionnaire,'' dated October 19, 2021.

[8] *See Preliminary Determination* PDM at 16–18.

[9] *See, e.g., Certain Uncoated Paper from Indonesia: Final Determination of Sales at Less Than Fair Value* , 81 FR 3101 (January 20, 2016).

[10] *See Ball Bearings and Parts Thereof from France, Germany, Italy, Japan, and the United Kingdom: Final Results of Antidumping Duty Administrative Reviews and Rescission of Reviews in Part*, 73 FR 52823, 52824 (September 11, 2008), and accompanying Issues and Decision Memorandum at Comment 16.

[11] *See Initiation Notice,* 86 FR at 15926.

Disclosure

Commerce intends to disclose its calculations and analysis performed to interested parties in this final determination within five days of any public announcement or, if there is no public announcement, within five days of the date of publication of this notice in accordance with 19 CFR 351.224(b).

Continuation of Suspension of Liquidation

In accordance with section 735(c)(1)(B) of the Act, Commerce will instruct U.S. Customs and Border Protection (CBP) to continue to suspend liquidation of all appropriate entries of subject merchandise, as described in the scope of the investigation in Appendix I, entered, or withdrawn from warehouse, for consumption on or after the date of publication of this notice in the **Federal Register** , as discussed below.

Pursuant to section 735(c)(1)(B)(ii) of the Act, upon the publication of this notice, Commerce will instruct CBP to require a cash deposit equal to the weighted-average amount by which the normal value exceeds U.S. price as follows: (1) For the producer/exporter combinations listed in the table above, the cash deposit rate will be the rate identified for that combination in the table; (2) for all combinations of Chinese producers/exporters of subject merchandise that have not established eligibility for their own separate rates, the cash deposit rate will be the rate established for the China-wide entity; and (3) for all non-Chinese exporters of subject merchandise which have not established eligibility for their own separate rates, the cash deposit rate will be the cash deposit rate applicable to the Chinese producer/exporter combination (or China-wide entity) that supplied that non-Chinese exporter.

To determine the cash deposit rate, Commerce normally adjusts the estimated weighted-average dumping margin by the amount of domestic subsidy pass-through and export subsidies determined in a companion CVD proceeding when CVD provisional measures are in effect. For a discussion of the applicable adjustments for this final determination, *see* Issues and Decision Memorandum.[12] These suspension of liquidation instructions will remain in effect until further notice.

International Trade Commission Notification

In accordance with section 735(d) of the Act, we will notify the International Trade Commission (ITC) of our final affirmative determination of sales at LTFV. Because Commerce's final determination is affirmative, in accordance with section 735(b)(2) of the Act, the ITC will make its final determination as to whether the domestic industry in the United States is materially injured, or threatened with material injury, by reason of imports or sales (or the likelihood of sales) for importation of mobile access equipment from China no later than 45 days after this final determination. If the ITC determines that such injury does exist, Commerce will issue an antidumping duty order directing CBP to assess, upon further instructions by Commerce, antidumping duties on all imports of the subject merchandise entered, or withdrawn from warehouse, for consumption on or after the effective date of the suspension of liquidation, as discussed above in the ''Continuation of Suspension of Liquidation'' section of this notice.

Notification Regarding Administrative Protective Order

In the event that the ITC issues a final negative injury determination, this notice will serve as the only reminder to parties subject to an Administrative Protective Order (APO) of their responsibility concerning the destruction of proprietary information disclosed under APO in accordance with 19 CFR 351.305(a)(3). Timely written notification of the return/destruction of APO materials or conversion to judicial protective order is hereby requested. Failure to comply with the regulations and terms of an APO is a violation which is subject to sanction.

Notification to Interested Parties

This determination is issued and published pursuant to sections 735(d) and 777(i)(1) of the Act, and 19 CFR 351.210(c).

Dated: February 14, 2022.

Lisa W. Wang,

Assistant Secretary for Enforcement and Compliance.

Appendix I

Scope of the Investigation

The merchandise covered by this investigation consists of certain mobile access equipment, which consists primarily of boom lifts, scissor lifts, and material telehandlers, and subassemblies thereof. Mobile access equipment combines a mobile (self-propelled or towed) chassis, with a lifting device (*e.g.* , scissor arms, boom assemblies) for mechanically lifting persons, tools and/or materials capable of reaching a working height of ten feet or more, and a coupler that provides an attachment point for the lifting device, in addition to other components. The scope of this investigation covers mobile access equipment and subassemblies thereof whether finished or unfinished, whether assembled or unassembled, and whether the equipment contains any additional features that provide for functions beyond the primary lifting function.

Subject merchandise includes, but is not limited to, the following subassemblies:

- Scissor arm assemblies, or scissor arm sections, for connection to chassis and platform assemblies. These assemblies include: (1) Pin assemblies that connect sections to form scissor arm assemblies, and (2) actuators that power the arm assemblies to extend and retract. These assemblies may or may not also include blocks that allow sliding of end sections in relation to frame and platform, hydraulic hoses, electrical cables, and/or other components;
- boom assemblies, or boom sections, for connection to the boom turntable, or to the chassis assembly, or to a platform assembly or to a lifting device. Boom assemblies include telescoping sections where the smallest section (or tube) can be nested in the next larger section (or tube) and can slide out for extension and/or articulated sections joined by pins. These assemblies may or may not include pins, hydraulic cylinders, hydraulic hoses, electrical cables, and/or other components;
- chassis assemblies, for connection to scissor arm assemblies, or to boom assemblies, or to boom turntable assemblies. Chassis assemblies include: (1) Chassis frames, and/or (2) frame sections. Chassis assemblies may or may not include axles, wheel end components, steering cylinders, engine assembly, transmission, drive shafts, tires and wheels, crawler tracks and wheels, fuel tank, hydraulic oil tanks, battery assemblies, and/or other components;
- boom turntable assemblies, for connection to chassis assemblies, or to boom assemblies. Boom turntable assemblies include turntable frames. Boom turntable assemblies may or may not include engine assembly, slewing rings, fuel tank, hydraulic oil tank, battery assemblies, counterweights, hoods (enclosures), and/or other components.

Importation of any of these subassemblies, whether assembled or unassembled, constitutes unfinished mobile access equipment for purposes of this investigation.

Processing of finished and unfinished mobile access equipment and subassemblies such as trimming, cutting, grinding, notching, punching, slitting, drilling, welding, joining, bolting, bending, beveling, riveting, minor fabrication, galvanizing, painting, coating, finishing, assembly, or any other processing either in the country of manufacture of the in-scope product or in a third country does not remove the product from the scope. Inclusion of other components not identified as comprising the finished or unfinished mobile access equipment does not remove the product from the scope.

The scope excludes forklifts, vertical mast lifts, mobile self-propelled cranes and motor vehicles that incorporate a scissor arm

[12] See Issues and Decision Memorandum at 4–5.

assembly or boom assembly. Forklifts are material handling vehicles with a working attachment, usually a fork, lifted along a vertical guide rail with the operator seated or standing on the chassis behind the vertical mast. Vertical mast lifts are person and material lifting vehicles with a working attachment, usually a platform, lifted along a vertical guide rail with an operator standing on the platform. Mobile self-propelled cranes are material handling vehicles with a boom attachment for lifting loads of tools or materials that are suspended on ropes, cables, and/or chains, and which contain winches mounted on or near the base of the boom with ropes, cables, and/or chains managed along the boom structure. The scope also excludes motor vehicles (defined as a vehicle driven or drawn by mechanical power and manufactured primarily for use on public streets, roads, and highways, but does not include a vehicle operated only on a rail line pursuant to 49 U.S.C. 30102(a)(7)) that incorporate a scissor arm assembly or boom assembly. The scope further excludes vehicles driven or drawn by mechanical power operated only on a rail line that incorporate a scissor arm assembly or boom assembly. The scope also excludes: (1) Rail line vehicles, defined as vehicles with hi-rail gear or track wheels, and a fixed (non-telescopic) main boom, which perform operations on rail lines, such as laying rails, setting ties, or other rail maintenance jobs; and (2) certain rail line vehicle subassemblies, defined as chassis subassemblies and boom turntable subassemblies for rail line vehicles with a fixed (non-telescopic) main boom.

Certain mobile access equipment subject to this investigation is typically classifiable under subheadings 8427.10.8020, 8427.10.8030, 8427.10.8070, 8427.10.8095, 8427.20.8020, 8427.20.8090, 8427.90.0020 and 8427.90.0090 of the Harmonized Tariff Schedule of the United States (HTSUS). Parts of certain mobile access equipment are typically classifiable under subheading 8431.20.0000 of the HTSUS. While the HTSUS subheadings are provided for convenience and customs purposes only, the written description of the merchandise under investigation is dispositive.

Appendix II

List of Topics Discussed in the Issues and Decision Memorandum

[FR Doc. 2022–03660 Filed 2–18–22; 8:45 am]

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DEPARTMENT OF COMMERCE

National Institute of Standards and Technology

[Docket Number: 220210–0045]

Evaluating and Improving NIST Cybersecurity Resources: The Cybersecurity Framework and Cybersecurity Supply Chain Risk Management

AGENCY: National Institute of Standards and Technology (NIST), Commerce.

ACTION: Notice; request for information.

SUMMARY: The National Institute of Standards and Technology (NIST) is seeking information to assist in evaluating and improving its cybersecurity resources, including the ''Framework for Improving Critical Infrastructure Cybersecurity'' (the ''NIST Cybersecurity Framework,'' ''CSF'' or ''Framework'') and a variety of existing and potential standards, guidelines, and other information, including those relating to improving cybersecurity in supply chains. NIST is considering updating the NIST Cybersecurity Framework to account for the changing landscape of cybersecurity risks, technologies, and resources. In addition, NIST recently announced it would launch the National Initiative for Improving Cybersecurity in Supply Chains (NIICS) to address cybersecurity risks in supply chains. This wide-ranging public-private partnership will focus on identifying tools and guidance for technology developers and providers, as well as performance-oriented guidance for those acquiring such technology. To inform the direction of the NIICS, including how it might be aligned and integrated with the Cybersecurity Framework, NIST is requesting information that will support the identification and prioritization of supply chain-related cybersecurity needs across sectors. Responses to this RFI will inform a possible revision of the Cybersecurity Framework as well as the NIICS initiative.

DATES: Comments in response to this notice must be received by April 25, 2022. Submissions received after that date may not be considered.

Comments may be submitted by any of the following methods:

Electronic submission: Submit electronic public comments via the Federal e-Rulemaking Portal.

1. Go to *www.regulations.gov* and enter NIST–2022–0001 in the search field,

2. Click the ''Comment Now!'' icon, complete the required fields, and

3. Enter or attach your comments.

Electronic submissions may also be sent as an attachment to *CSF-SCRM-RFI@nist.gov* and may be in any of the following unlocked formats: HTML; ASCII; Word; RTF; or PDF. Please submit comments only and include your name, organization's name (if any), and cite ''NIST Cybersecurity RFI'' in all correspondence. Comments containing references, studies, research, and other empirical data that are not widely published should include copies of the referenced materials. Please do not submit additional materials.

Comments received by the deadline may be posted at *www.regulations.gov* and *https://www.nist.gov/cyberframework.* All submissions, including attachments and other supporting materials, may become part of the public record and may be subject to public disclosure. NIST reserves the right to publish relevant comments publicly, unedited and in their entirety. Personal information, such as account numbers or Social Security numbers, or names of other individuals, should not be included. Do not submit confidential

business information, or otherwise sensitive or protected information. Comments that contain profanity, vulgarity, threats, or other inappropriate language or content will not be considered.

FOR FURTHER INFORMATION CONTACT: For questions about this RFI contact: *CSF-SCRM-RFI@nist.gov* or Katherine MacFarland, National Institute of Standards and Technology, 100 Bureau Drive, Stop 2000, Gaithersburg, MD 20899; (301) 975–3359. Direct media inquiries to NIST's Office of Public Affairs at (301) 975–2762. Users of telecommunication devices for the deaf, or a text telephone, may call the Federal Relay Service, toll free at 1–800–877–8339.

Accessible Format: NIST will make the RFI available in alternate formats, such as Braille or large print, upon request by persons with disabilities.

SUPPLEMENTARY INFORMATION: The NIST Cybersecurity Framework consists of standards, methodologies, procedures, and processes that align policy, business, and technological approaches to reduce cybersecurity risks. It is used widely by private and public sector organizations in and outside of the United States and has been translated into multiple languages, speaking to its success as a common resource.

The Cybersecurity Framework was last updated in April 2018. Much has changed in the cybersecurity landscape in terms of threats, capabilities, technologies, education and workforce, and the availability of resources to help organizations to better manage cybersecurity risk. That includes an increased awareness of and emphasis on cybersecurity risks in supply chains, including a decision to launch NIICS. With those changes in mind, NIST seeks to build on its efforts to cultivate trust by advancing cybersecurity and privacy standards and guidelines, technology, measurements, and practices by requesting information about the use, adequacy, and timeliness of the Cybersecurity Framework and the degree to which other NIST resources are used in conjunction with or instead of the Framework. Further, to inform the direction of the NIICS, including how it might be aligned and integrated with the Cybersecurity Framework, NIST is requesting information that will support the identification and prioritization of supply chain-related cybersecurity needs across sectors.

Following is a non-exhaustive list of possible topics that may be addressed in any comments. Comments may address topics in the following list, or any other topic believed to have implications for the improvement of the NIST Cybersecurity Framework or NIST's cybersecurity guidance regarding supply chains. NIST will consider all relevant comments in the development of the revised Framework and guidance regarding supply chains.

Use of the NIST Cybersecurity Framework

1. The usefulness of the NIST Cybersecurity Framework for aiding organizations in organizing cybersecurity efforts via the five functions in the Framework and actively managing risks using those five functions.

2. Current benefits of using the NIST Cybersecurity Framework. Are communications improved within and between organizations and entities (*e.g.,* supply chain partners, customers, or insurers)? Does the Framework allow for better assessment of risks, more effective management of risks, and/or increase the number of potential ways to manage risks? What might be relevant metrics for improvements to cybersecurity as a result of implementation of the Framework?

3. Challenges that may prevent organizations from using the NIST Cybersecurity Framework or using it more easily or extensively (*e.g.,* resource considerations, information sharing restrictions, organizational factors, workforce gaps, or complexity).

4. Any features of the NIST Cybersecurity Framework that should be changed, added, or removed. These might include additions or modifications of: Functions, Categories, or Subcategories; Tiers; Profile Templates; references to standards, frameworks, models, and guidelines; guidance on how to use the Cybersecurity Framework; or references to critical infrastructure versus the Framework's broader use.

5. Impact to the usability and backward compatibility of the NIST Cybersecurity Framework if the structure of the framework such as Functions, Categories, Subcategories, etc. is modified or changed.

6. Additional ways in which NIST could improve the Cybersecurity Framework, or make it more useful.

Relationship of the NIST Cybersecurity Framework to Other Risk Management Resources

7. Suggestions for improving alignment or integration of the Cybersecurity Framework with other NIST risk management resources. As part of the response, please indicate benefits and challenges of using these resources alone or in conjunction with the Cybersecurity Framework. These resources include:

- Risk management resources such as the NIST Risk Management Framework, the NIST Privacy Framework, and Integrating Cybersecurity and Enterprise Risk Management (NISTIR 8286).
- Trustworthy technology resources such as the NIST Secure Software Development Framework, the NIST Internet of Things (IoT) Cybersecurity Capabilities Baseline, and the Guide to Industrial Control System Cybersecurity.
- Workforce management resources such as the National Initiative for Cybersecurity Education (NICE) Workforce Framework for Cybersecurity.

8. Use of non-NIST frameworks or approaches in conjunction with the NIST Cybersecurity Framework. Are there commonalities or conflicts between the NIST framework and other voluntary, consensus resources? Are there commonalities or conflicts between the NIST framework and cybersecurity-related mandates or resources from government agencies? Are there ways to improve alignment or integration of the NIST framework with other frameworks, such as international approaches like the ISO/IEC 27000-series, including ISO/IEC TS 27110?

9. There are numerous examples of international adaptations of the Cybersecurity Framework by other countries. The continued use of international standards for cybersecurity, with a focus on interoperability, security, usability, and resilience can promote innovation and competitiveness while enabling organizations to more easily and effectively integrate new technologies and services. Given this importance, what steps should NIST consider to ensure any update increases international use of the Cybersecurity Framework?

10. References that should be considered for inclusion within NIST's Online Informative References Program. This program is an effort to define standardized relationships between NIST and industry resources and elements of documents, products, and services and various NIST documents such as the NIST Cybersecurity Framework, NIST Privacy Framework, Security and Privacy Controls for Information Systems and Organizations (NIST Special Publication 800–53), NIST Secure Software Development Framework, and the NIST Internet of Things (IoT) Cybersecurity Capabilities Baseline.

Cybersecurity Supply Chain Risk Management

11. National Initiative for Improving Cybersecurity in Supply Chains (NIICS). What are the greatest challenges related to the cybersecurity aspects of supply chain risk management that the NIICS could address? How can NIST build on its current work on supply chain security, including software security work stemming from E.O. 14028, to increase trust and assurance in technology products, devices, and services?

12. Approaches, tools, standards, guidelines, or other resources necessary for managing cybersecurity-related risks in supply chains. NIST welcomes input on such resources in narrowly defined areas (*e.g.* pieces of hardware or software assurance or assured services, or specific to only one or two sectors) that may be useful to utilize more broadly; potential low risk, high reward resources that could be facilitated across diverse disciplines, sectors, or stakeholders; as well as large-scale and extremely difficult areas.

13. Are there gaps observed in existing cybersecurity supply chain risk management guidance and resources, including how they apply to information and communications technology, operational technology, IoT, and industrial IoT? In addition, do NIST software and supply chain guidance and resources appropriately address cybersecurity challenges associated with open-source software? Are there additional approaches, tools, standards, guidelines, or other resources that NIST should consider to achieve greater assurance throughout the software supply chain, including for open-source software?

14. Integration of Framework and Cybersecurity Supply Chain Risk Management Guidance. Whether and how cybersecurity supply chain risk management considerations might be further integrated into an updated NIST Cybersecurity Framework—or whether and how a new and separate framework focused on cybersecurity supply chain risk management might be valuable and more appropriately be developed by NIST.

Alicia Chambers,

NIST Executive Secretariat.

[FR Doc. 2022–03642 Filed 2–18–22; 8:45 am]

BILLING CODE 3510–13–P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

[RTID 0648–XB822]

Western Pacific Fishery Management Council; Public Meetings

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice of public meetings.

SUMMARY: The Western Pacific Fishery Management Council (Council) will hold its American Samoa Fishery Archipelago Fishery Ecosystem Plan (FEP) Advisory Panel (AP), Mariana Archipelago FEP-Commonwealth of the Northern Mariana Islands (CNMI) AP, Mariana Archipelago FEP-Guam AP, Fishing Industry Advisory Committee (FIAC), and the Hawaii Archipelago FEP AP to discuss and make recommendations on fishery management issues in the Western Pacific Region.

DATES: The meetings will be held between March 8 and March 11, 2022. For specific times and agendas, see **SUPPLEMENTARY INFORMATION**.

ADDRESSES: The meetings will be held by web conference via Webex. Instructions for connecting to the web conference and providing oral public comments will be posted on the Council website at *www.wpcouncil.org.* For assistance with the web conference connection, contact the Council office at (808) 522–8220.

FOR FURTHER INFORMATION CONTACT: Kitty M. Simonds, Executive Director, Western Pacific Fishery Management Council; phone: (808) 522–8220.

SUPPLEMENTARY INFORMATION: The American Samoa Archipelago FEP AP will meet on Tuesday, March 8, 2022, from 6 p.m. to 8 p.m., The Mariana Archipelago FEP–CNMI AP will meet on Thursday, March 10, 2022, from 9 a.m. to 11 a.m., the Mariana Archipelago FEP-Guam AP will meet on Thursday March 10, 2022, from 6:30 p.m. to 8:30 p.m., the FIAC will meet on Thursday, March 10, 2022, from 2 p.m. to 5 p.m., and the Hawaii Archipelago FEP AP will meet on Friday, March 11, from 9 a.m. to 12 noon. All times listed are local island times expect for the FIAC which is in Hawaii Standard Time.

Public Comment periods will be provided in the agendas. The order in which agenda items are addressed may change. The meetings will run as late as necessary to complete scheduled business.

Schedule and Agenda for the American Samoa Archipelago AP Meeting

Tuesday, March 8, 2022, 6 p.m.–8 p.m. (American Samoa Standard Time)

1. Welcome and Introductions
2. Review of Last AP Meeting and Recommendations
3. American Samoa (AS) Fishery Issues and Activities
   - A. Bottomfish
     - i. Options for Revising the Territorial Bottomfish Management Unit Species (BMUS)
     - ii. American Samoa Bottomfish Data Workshop
   - B. Council Coordination Committee (CCC) Working Group on Equity and Environmental Justice (EEJ)
   - C. Fishery Biological Opinions (BiOPs) Update
4. 2022 AP Activities Plan
   - A. Update on Sustainable Fisheries Fund Projects
   - B. Catchit Logit (CILI) Update
   - C. Education and Outreach
5. Feedback From The Fleet
   - A. AS Fishermen Observations
   - B. AP Fishery Issues and Activities
6. Public Comment
7. Discussion and Recommendations
8. Other Business

Schedule and Agenda for the Mariana Archipelago-CNMI AP Meeting

Thursday, March 10, 2022, 9 a.m.–11 a.m. (Marianas Standard Time)

1. Welcome and Introductions
2. Review of Last AP Meeting and Recommendations
3. CNMI Fishery Issues and Activities
   - A. Bottomfish
     - i. Options for Revising the Territorial BMUS
     - ii. Fishery BiOPs Update
   - B. Marianas Sanctuary Nomination
   - C. CILI Updates
   - D. CCC Working Group on EEJ
4. 2022 Advisory Panel Activities Plan
   - A. AP Outreach and Education
5. Feedback From The Fleet
   - A. CNMI Fishermen Observations
   - B. AP Fishery Issues and Activities
6. Discussion and Recommendations
7. Other Business

Schedule and Agenda for the Mariana Archipelago-Guam AP Meeting

Thursday, March 10, 2022, 6:30 p.m.–8:30 p.m. (Marianas Standard Time)

1. Welcome and Introductions
2. Review of Last AP Meeting and Recommendations
3. Guam Fishery Issues and Activities
   - A. Bottomfish
     - i. Options for Revising the Territorial BMUS
     - ii. Fishery BiOPs Update

B. Marianas Sanctuary Nomination
C. CILI Updates
D. CCC Working Group on EEJ
4. 2022 AP Activities Plan
A. AP Outreach and Education
5. Feedback From The Fleet
A. Guam Fishermen Observations
B. AP Fishery Issues and Activities
6. Public Comment
7. Discussion and Recommendations
8. Other Business

Schedule and Agenda for the FIAC Meeting

Thursday, March 10, 2022, 2 p.m.–5 p.m. (Hawaii Standard Time)

1. Welcome and Introductions
2. Status Report on September 2021 FIAC Recommendations
3. Roundtable Update on Fishing/Market Issues/Impacts (billfish, transportation, etc.)
4. Investigating the Relationships Between Imports and Fish Prices
5. Aquaculture Management Final Proposed Environmental Impact Statement and Future Action
6. Northwestern Hawaiian Islands (NWHI) Proposed National Marine Sanctuary 304(1)(5) Council Response
7. International Fisheries
A. New Strategy for Addressing Western and Central Pacific Fisheries Commission Issues
B. Revisiting Western and Central Pacific Ocean Silky Shark MSA 304(i) Obligations
8. False Killer Whale Hook Study Implications
9. CCC Working Group on EEJ
10. Other Issues
11. Public Comment
12. Discussion and Recommendations

Schedule and Agenda for the Hawaii Archipelago AP Meeting

Friday, March 11, 2022, 9 a.m.–12 noon (Hawaii Standard Time)

13. Welcome and Introductions
14. Review of Last AP Meeting and Recommendations
15. Council Issues
A. NWHI Proposed National Marine Sanctuary 304(1)(5) Council Response
B. Specification of the Main Hawaiian Islands Deepwater Shrimp and Precious Coral Annual Catch Limits for Fishing Year 2022–2025
C. False Killer Whale Hook Study Implications
D. CCC Working Group on EEJ
16. AP Plan and Working Group Reports
A. Smart Fish Aggregation Devices
B. FishMaps
17. Hawaii Fishery Issues and Activities
A. Investigating the Relationships Between Imports and Fish Prices
B. Green Turtle Management Update
C. Non-Longline Pelagic Data Workshop
18. Feedback from the Fleet
A. Hawaii Fishermen Observations
B. AP Fishery Issues and Activities
19. Public Comment
20. Discussion and Recommendations
21. Other Business

Special Accommodations

These meetings are accessible to people with disabilities. Requests for sign language interpretation or other auxiliary aids should be directed to Kitty M. Simonds, (808) 522–8220 (voice) or (808) 522–8226 (fax), at least 5 days prior to the meeting date.

Authority: 16 U.S.C. 1801 *et seq.*

Dated: February 16, 2022.

Tracey L. Thompson,

Acting Deputy Director, Office of Sustainable Fisheries, National Marine Fisheries Service.

[FR Doc. 2022–03721 Filed 2–18–22; 8:45 am]

BILLING CODE 3510–22–P

COMMODITY FUTURES TRADING COMMISSION

Agency Information Collection Activities: Notice of Intent To Extend Collection 3038–0094: Clearing Member Risk Management

AGENCY: Commodity Futures Trading Commission.

ACTION: Notice.

SUMMARY: The Commodity Futures Trading Commission (''Commission'' or ''CFTC'') is announcing an opportunity for public comment on the proposed renewal of a collection of certain information by the agency. Under the Paperwork Reduction Act (''PRA''), Federal agencies are required to publish notice in the **Federal Register** concerning each proposed collection of information, including each proposed extension of an existing collection of information, and to allow 60 days for public comment. This notice solicits comments on the obligation to maintain records related to clearing documentation between a customer and the customer's clearing member, as required under Commission regulations.

DATES: Comments must be submitted on or before April 25, 2022.

ADDRESSES: You may submit comments, identified by ''OMB Control No. 3038–0094'' by any of the following methods:

- The Agency's website, at *https://comments.cftc.gov/*. Follow the instructions for submitting comments through the website.
- *Mail:* Christopher Kirkpatrick, Secretary of the Commission, Commodity Futures Trading Commission, Three Lafayette Centre, 1155 21st Street NW, Washington, DC 20581.
- *Hand Delivery/Courier:* Same as Mail above. Please submit your comments using only one method. All comments must be submitted in English, or if not, accompanied by an English translation. Comments will be posted as received to *https://www.cftc.gov.*

FOR FURTHER INFORMATION CONTACT: Melissa A. D'Arcy, Special Counsel, Division of Clearing and Risk, Commodity Futures Trading Commission, Three Lafayette Centre, 1155 21st Street NW, Washington, DC 20581; (202) 418–5086; email: *mdarcy@cftc.gov.*

SUPPLEMENTARY INFORMATION: Under the PRA, 44 U.S.C. 3501 *et seq.,* Federal agencies must obtain approval from the Office of Management and Budget (''OMB'') for each collection of information they conduct or sponsor. ''Collection of Information'' is defined in 44 U.S.C. 3502(3) and 5 CFR 1320.3 and includes agency requests or requirements that members of the public submit reports, keep records, or provide information to a third party. Section 3506(c)(2)(A) of the PRA, 44 U.S.C. 3506(c)(2)(A), requires Federal agencies to provide a 60-day notice in the **Federal Register** concerning each proposed collection of information, including each proposed extension of an existing collection of information, before submitting the collection to OMB for approval. To comply with this requirement, the Commission is publishing notice of the proposed extension of the existing collection of information listed below. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.[1]

Title: Clearing Member Risk Management (OMB Control No. 3038–0094). This is a request for an extension of a currently approved information collection.

Abstract: Section 3(b) of the Commodity Exchange Act (''Act'' or ''CEA'') provides that one of the purposes of the Act is to ensure the financial integrity of all transactions subject to the Act and to avoid systemic risk. Section 8a(5) of the CEA authorizes the Commission to promulgate such

[1] The OMB control numbers for the CFTC regulations were published on December 30, 1981. *See* 46 FR 63035 (Dec. 30, 1981).

regulations that it believes are reasonably necessary to effectuate any of the provisions or to accomplish any of the purposes of the CEA. Risk management systems are critical to the avoidance of systemic risk.

Section 4s(j)(2) of the CEA requires each Swap Dealer (''SD'') and Major Swap Participant (''MSP'') to have risk management systems adequate for managing its business. Section 4s(j)(4) requires each SD and MSP to have internal systems and procedures to perform any of the functions set forth in Section 4s.

Section 4d requires Futures Commission Merchants (''FCMs'') to register with the Commission. It further requires FCMs to segregate customer funds. Section 4f requires FCMs to maintain certain levels of capital. Section 4g establishes reporting and recordkeeping requirements for FCMs.

Pursuant to these provisions, the Commission adopted Commission regulation 1.73 which applies to clearing members that are FCMs and Commission regulation 23.609 which applies to clearing members that are SDs or MSPs. These provisions require these clearing members to have procedures to limit the financial risks they incur as a result of clearing trades and liquid resources to meet the obligations that arise. The regulations require each clearing members to: (1) Establish credit and market risk-based limits based on position size, order size, margin requirements, or similar factors; (2) use automated means to screen orders for compliance with the risk-based limits; (3) monitor for adherence to the risk-based limits intra-day and overnight; (4) conduct stress tests of all positions in the proprietary account and all positions in any customer account that could pose material risk to the futures commission merchant at least once per week; (5) evaluate its ability to meet initial margin requirements at least once per week; (6) evaluate its ability to meet variation margin requirements in cash at least once per week; (7) evaluate its ability to liquidate the positions it clears in an orderly manner, and estimate the cost of the liquidation at least once per month; and (8) test all lines of credit at least once per quarter.

Each of these items has been observed by Commission staff as an element of an existing sound risk management program at an SD, MSP, or FCM. The Commission regulations require each clearing member to establish written procedures to comply with this regulation and to keep records documenting its compliance. The information collection obligations imposed by the regulations are necessary to implement certain provisions of the CEA, including ensuring that registrants exercise effective risk management and for the efficient operation of trading venues among SDs, MSPs, and FCMs.

With respect to the collection of information, the CFTC invites comments on:

- Whether the proposed collection of information is necessary for the proper performance of the functions of the Commission, including whether the information will have a practical use;
- The accuracy of the Commission's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used;
- Ways to enhance the quality, usefulness, and clarity of the information to be collected; and
- Ways to minimize the burden of collection of information on those who are to respond, including through the use of appropriate automated electronic, mechanical, or other technological collection techniques or other forms of information technology; *e.g.,* permitting electronic submission of responses.

You should submit only information that you wish to make available publicly. If you wish for the Commission to consider information that you believe is exempt from disclosure under the Freedom of Information Act, a petition for confidential treatment of the exempt information may be submitted according to the procedures established in § 145.9 of the Commission Regulations.[2]

The Commission reserves the right, but shall have no obligation, to review, pre-screen, filter, redact, refuse or remove any or all of your submission from *https://www.cftc.gov* that it may deem to be inappropriate for publication, such as obscene language. All submissions that have been redacted or removed that contain comments on the merits of the Information Collection Request will be retained in the public comment file and will be considered as required under the Administrative Procedure Act and other applicable laws, and may be accessible under the Freedom of Information Act.

Burden Statement: The Commission is revising its estimate of the burden for this collection of information from clearing members of derivatives clearing organizations who are swap dealers, major swap participants, and/or futures commission merchants. The respondent burden for this collection is estimated to be as follows:

[2] 17 CFR 145.9.

Estimated Number of Respondents: 167 (108 Clearing Member Swap Dealers and 59 Clearing Member Futures Commission Merchants).

Estimated Average Burden Hours per Respondent: 504 hours.

Estimated Total Annual Burden Hours: 84,168 hours.

Frequency of Collection: As needed.

There are no capital costs or operating and maintenance costs associated with this collection.

(Authority: 44 U.S.C. 3501 *et seq.*)

Dated: February 16, 2022.

Robert Sidman,

Deputy Secretary of the Commission.

[FR Doc. 2022–03700 Filed 2–18–22; 8:45 am]

BILLING CODE 6351–01–P

COMMODITY FUTURES TRADING COMMISSION

Agency Information Collection Activities: Notice of Intent To Extend Collection 3038–0075: Protection of Collateral of Counterparties to Uncleared Swaps; Treatment of Securities in a Portfolio Margining Account in a Commodity Broker Bankruptcy

AGENCY: Commodity Futures Trading Commission.

ACTION: Notice.

SUMMARY: The Commodity Futures Trading Commission (''Commission'' or ''CFTC'') is announcing an opportunity for public comment on the proposed renewal of a collection of certain information by the agency. Under the Paperwork Reduction Act (''PRA''), Federal agencies are required to publish notice in the **Federal Register** concerning each proposed collection of information, including each proposed extension of an existing collection of information, and to allow 60 days for public comment. This notice solicits comments on reporting requirements relating to uncleared swaps between certain affiliated entities electing the exemption under Commission regulation 50.52 (Exemption for swaps between affiliates).

DATES: Comments must be submitted on or before April 25, 2022.

ADDRESSES: You may submit comments, identified by ''OMB Control No. 3038–0075'' by any of the following methods:

- The Agency's website, at *https://comments.cftc.gov/.* Follow the instructions for submitting comments through the website.
- *Mail:* Christopher Kirkpatrick, Secretary of the Commission, Commodity Futures Trading

Commission, Three Lafayette Centre, 1155 21st Street NW, Washington, DC 20581.

• *Hand Delivery/Courier:* Same as Mail above.

Please submit your comments using only one method. All comments must be submitted in English, or if not, accompanied by an English translation. Comments will be posted as received to *https://www.cftc.gov.*

FOR FURTHER INFORMATION CONTACT: Christopher W. Cummings, Special Counsel, Market Participants Division, Commodity Futures Trading Commission, Three Lafayette Centre, 1155 21st Street NW, Washington, DC 20581; (202) 418–5445; email: *ccummings@cftc.gov.*

SUPPLEMENTARY INFORMATION: Under the PRA, 44 U.S.C. 3501 *et seq.,* Federal agencies must obtain approval from the Office of Management and Budget (''OMB'') for each collection of information they conduct or sponsor. ''Collection of Information'' is defined in 44 U.S.C. 3502(3) and 5 CFR 1320.3 and includes agency requests or requirements that members of the public submit reports, keep records, or provide information to a third party. Section 3506(c)(2)(A) of the PRA, 44 U.S.C. 3506(c)(2)(A), requires Federal agencies to provide a 60-day notice in the **Federal Register** concerning each proposed collection of information, including each proposed extension of an existing collection of information, before submitting the collection to OMB for approval. To comply with this requirement, the Commission is publishing notice of the proposed extension of the existing collection of information listed below. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.[1]

Title: Protection of Collateral of Counterparties to Uncleared Swaps; Treatment of Securities in a Portfolio Margining Account in a Commodity Broker Bankruptcy (OMB Control No. 3038–0075). This is a request for an extension of a currently approved information collection.

Abstract: Section 4s(l) of the Commodity Exchange Act requires swap dealers and major swap participants to notify uncleared swap counterparties that they have the right to request that property provided as margin be segregated, and to report quarterly to counterparties who have not requested segregated accounts that the back office procedures of the swap dealer or major swap participant with respect to margin and collateral comply with the parties' agreement. Regulations 23.701 and 23.704 establish reporting requirements that are mandated by Section 4s(l) and, thus, are necessary to implement the objectives of Section 4s(l). Regulation 23.701 requires that the SD or MSP notify the counterparty at the beginning of the swap trading relationship of the counterparty's right to require segregation of initial margin, and to permit the counterparty to change that election by written notice to the SD or MSP. Regulation 23.704 requires that, in certain circumstances, an SD or MSP must report to the counterparty, on a quarterly basis, that the back office procedures of the swap dealer or major swap participant relating to margin and collateral requirements are in compliance with the agreement of the counterparties. The data required to be compiled and maintained pursuant to Regulations 23.701 and 23.704 would be used by uncleared swap counterparties (and, in some instances, the CFTC and self-regulatory organizations).

With respect to the collection of information, the CFTC invites comments on:

• Whether the proposed collection of information is necessary for the proper performance of the functions of the Commission, including whether the information will have a practical use;

• The accuracy of the Commission's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used;

• Ways to enhance the quality, usefulness, and clarity of the information to be collected; and

• Ways to minimize the burden of collection of information on those who are to respond, including through the use of appropriate automated electronic, mechanical, or other technological collection techniques or other forms of information technology; *e.g.,* permitting electronic submission of responses.

You should submit only information that you wish to make available publicly. If you wish for the Commission to consider information that you believe is exempt from disclosure under the Freedom of Information Act, a petition for confidential treatment of the exempt information may be submitted according to the procedures established in § 145.9 of the Commission's regulations.[2]

The Commission reserves the right, but shall have no obligation, to review, pre-screen, filter, redact, refuse or remove any or all of your submission from *https://www.cftc.gov* that it may deem to be inappropriate for publication, such as obscene language. All submissions that have been redacted or removed that contain comments on the merits of the Information Collection Request will be retained in the public comment file and will be considered as required under the Administrative Procedure Act and other applicable laws, and may be accessible under the Freedom of Information Act.

Burden Statement: The Commission continues to estimate that the respondent burden for this collection is as follows:

• Regulation 23.701:

Estimated Number of Respondents: 108.

Estimated Average Burden Hours per Respondent: 600 hours.

Estimated Total Annual Burden Hours: 64,800 hours.

Frequency of Collection: Beginning of the swap trading relationship with a counterparty.

• Regulation 23.704:

Estimated Number of Respondents: 108.

Estimated Average Burden Hours per Respondent: 806 hours.

Estimated Total Annual Burden Hours: 87,048 hours.

Frequency of Collection: Quarterly (4 times per year).

• Total Annual Burden for the Collection: 151,848 hours.

There are no capital costs or operating and maintenance costs associated with this collection.

(Authority: 44 U.S.C. 3501 *et seq.*)

Dated: February 16, 2022.

Robert Sidman,

Deputy Secretary of the Commission.

[FR Doc. 2022–03699 Filed 2–18–22; 8:45 am]

BILLING CODE 6351–01–P

[1] The OMB control numbers for the CFTC regulations were published on December 30, 1981. *See* 46 FR 63035 (Dec. 30, 1981).

[2] 17 CFR 145.9.

DEPARTMENT OF DEFENSE

Department of the Air Force

[Docket ID: USAF–2021–HQ–0008]

Submission for OMB Review; Comment Request

AGENCY: Air Combat Command (ACC), Department of Defense (DoD).

ACTION: 30-Day information collection notice.

SUMMARY: The Department of Defense has submitted to OMB for clearance the following proposal for collection of information under the provisions of the Paperwork Reduction Act.

DATES: Consideration will be given to all comments received by March 24, 2022.

ADDRESSES: Written comments and recommendations for the proposed information collection should be sent within 30 days of publication of this notice to *www.reginfo.gov/public/do/PRAMain.* Find this particular information collection by selecting ''Currently under 30-day Review—Open for Public Comments'' or by using the search function.

FOR FURTHER INFORMATION CONTACT: Angela Duncan, 571–372–7574, *whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil.*

SUPPLEMENTARY INFORMATION:

Title; Associated Form; and OMB Number: Isolated Personnel Report and Personnel Recovery Mission Software Web Application; DD Form 1833; OMB Control Number 0701–0166.

Type of Request: Extension.

Number of Respondents: 2,864.

Responses per Respondent: 1.

Annual Responses: 2,864.

Average Burden per Response: 15 minutes.

Annual Burden Hours: 716.

Needs and Uses: Information collected using the DD Form 1833 is necessary to positively identify, authenticate, support and recover isolated or missing DoD persons of interest. The Isolated Personnel Report (ISOPREP) collects controlled unclassified information in the form of full name and associates the name with sensitive personal identifiable information including date of birth, Social Security number, DoD Identification number, pictures and fingerprints. The ISOPREP also collects confidential information in the form of personal authentication statements and codes known only to the individual who completes the ISOPREP. All personnel completing an initial ISOPREP are required to utilize the Personnel Recovery Mission Software (PRMS) web application. In rare instances where personnel do not have access to PRMS, a hardcopy DD Form 1833 can be completed. In the interest of protecting the force and returning personnel who support the DoD to their units, families and country, the information collected for the ISOPREP is a force requirement for DoD military and civilians serving overseas.

Affected Public: Individuals or households.

Frequency: On occasion.

Respondent's Obligation: Voluntary.

OMB Desk Officer: Ms. Jasmeet Seehra.

You may also submit comments and recommendations, identified by Docket ID number and title, by the following method:

- *Federal eRulemaking Portal: http://www.regulations.gov.* Follow the instructions for submitting comments.

Instructions: All submissions received must include the agency name, Docket ID number, and title for this **Federal Register** document. The general policy for comments and other submissions from members of the public is to make these submissions available for public viewing on the internet at *http://www.regulations.gov* as they are received without change, including any personal identifiers or contact information.

DOD Clearance Officer: Ms. Angela Duncan.

Requests for copies of the information collection proposal should be sent to Ms. Duncan at *whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil.*

Dated: February 15, 2022.

Aaron T. Siegel,

Alternate OSD Federal Register Liaison Officer, Department of Defense.

[FR Doc. 2022–03728 Filed 2–18–22; 8:45 am]

BILLING CODE 5001–05–P

DEPARTMENT OF DEFENSE

Department of the Army

[Docket ID: USA–2021–HQ–0024]

Submission for OMB Review; Comment Request

AGENCY: Department of the Army, Department of Defense (DoD).

ACTION: 30-Day information collection notice.

SUMMARY: The Department of Defense has submitted to OMB for clearance the following proposal for collection of information under the provisions of the Paperwork Reduction Act.

DATES: Consideration will be given to all comments received by March 24, 2022.

ADDRESSES: Written comments and recommendations for the proposed information collection should be sent within 30 days of publication of this notice to *www.reginfo.gov/public/do/PRAMain.* Find this particular information collection by selecting ''Currently under 30-day Review—Open for Public Comments'' or by using the search function.

FOR FURTHER INFORMATION CONTACT: Angela Duncan, 571–372–7574, or *whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil.*

SUPPLEMENTARY INFORMATION: *Title; Associated Form; and OMB Number:* Applications for Department of the Army Permit and Nationwide Permit Pre-Construction Notification Forms; ENG Form 4345, ENG Form 6082; OMB Control Number 0710–0003.

Type of Request: Revision.

Number of Respondents: 62,000.

Responses per Respondent: 1.

Annual Responses: 62,000.

Average Burden per Response: 11 hours.

Annual Burden Hours: 682,000.

Needs and Uses: The information collected is used to evaluate, as required by law, proposed construction or filing in waters of the United States that result in impacts to the aquatic environment and nearby properties, and to determine which type of permit is required if one is needed. Respondents are private landowners, businesses, non-profit organizations, and government agencies. Respondents also include sponsors of proposed and approved mitigation banks and in-lieu fee programs.

Affected Public: Business or other for-profit; individuals or households.

Frequency: On occasion.

Respondent's Obligation: Voluntary.

OMB Desk Officer: Mr. Vlad Dorjets.

You may also submit comments and recommendations, identified by Docket ID number and title, by the following method:

- *Federal eRulemaking Portal: http://www.regulations.gov.* Follow the instructions for submitting comments.

Instructions: All submissions received must include the agency name, Docket ID number, and title for this **Federal Register** document. The general policy for comments and other submissions from members of the public is to make these submissions available for public viewing on the internet at *http://www.regulations.gov* as they are received without change, including any personal identifiers or contact information.

DOD Clearance Officer: Ms. Angela Duncan.

Requests for copies of the information collection proposal should be sent to Ms. Duncan at *whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil.*

Dated: February 15, 2022.

Aaron T. Siegel,

Alternate OSD Federal Register, Liaison Officer, Department of Defense.

[FR Doc. 2022–03736 Filed 2–18–22; 8:45 am]

BILLING CODE 5001–06–P

DEPARTMENT OF DEFENSE

Office of the Secretary

[Docket ID: DoD–2021–OS–0119]

Submission for OMB Review; Comment Request

AGENCY: Office of the General Counsel (OGC), Department of Defense (DoD).

ACTION: 30-Day information collection notice.

SUMMARY: The Department of Defense has submitted to OMB for clearance the following proposal for collection of information under the provisions of the Paperwork Reduction Act.

DATES: Consideration will be given to all comments received by March 24, 2022.

ADDRESSES: Written comments and recommendations for the proposed information collection should be sent within 30 days of publication of this notice to *www.reginfo.gov/public/do/PRAMain.* Find this particular information collection by selecting ''Currently under 30-day Review—Open for Public Comments'' or by using the search function.

FOR FURTHER INFORMATION CONTACT: Angela Duncan, 571–372–7574, *whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil.*

SUPPLEMENTARY INFORMATION:

Title; Associated Form; and OMB Number: Office of the Secretary of Defense Confidential Conflict-of-Interest Statement for the Advisory Committee Members; SD Form 830; OMB Control Number 0704–0551.

Type of Request: Extension.

Number of Respondents: 125.

Responses per Respondent: 1.

Annual Responses: 125.

Average Burden per Response: 1 hour.

Annual Burden Hours: 125.

Needs and Uses: The information requested on this form is required by Title I of the Ethics in Government Act of 1978 (5 U.S.C. App.), Executive Order 12674, and 5 CFR part 2634, subpart I, of the Office of Government Ethics regulations. Respondents are members of or potential members of the Office of the Secretary of Defense Advisory Committees. SD Form 830 will assist in identifying potential conflicts of interest due to personal financial interests or affiliations. The collection of requested information will satisfy a Federal regulatory requirement and assist the DoD in complying with applicable Federal conflict of interest laws and regulations.

Affected Public: Individuals or households.

Frequency: Annually.

Respondent's Obligation: Voluntary.

OMB Desk Officer: Ms. Jasmeet Seehra.

You may also submit comments and recommendations, identified by Docket ID number and title, by the following method:

- *Federal eRulemaking Portal: https://www.regulations.gov.* Follow the instructions for submitting comments.

Instructions: All submissions received must include the agency name, Docket ID number, and title for this **Federal Register** document. The general policy for comments and other submissions from members of the public is to make these submissions available for public viewing on the internet at *https://www.regulations.gov* as they are received without change, including any personal identifiers or contact information.

DOD Clearance Officer: Ms. Angela Duncan.

Requests for copies of the information collection proposal should be sent to Ms. Duncan at *whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil.*

Dated: February 15, 2022.

Aaron T. Siegel,

Alternate OSD Federal Register Liaison Officer, Department of Defense.

[FR Doc. 2022–03732 Filed 2–18–22; 8:45 am]

BILLING CODE 5001–06–P

DEPARTMENT OF DEFENSE

Office of the Secretary

[Docket ID: DoD–2021–OS–0118]

Submission for OMB Review; Comment Request

AGENCY: Defense Media Activity (DMA), Department of Defense (DoD).

ACTION: 30-Day information collection notice.

SUMMARY: The Department of Defense has submitted to OMB for clearance the following proposal for collection of information under the provisions of the Paperwork Reduction Act.

DATES: Consideration will be given to all comments received by March 24, 2022.

ADDRESSES: Written comments and recommendations for the proposed information collection should be sent within 30 days of publication of this notice to *www.reginfo.gov/public/do/PRAMain.* Find this particular information collection by selecting ''Currently under 30-day Review—Open for Public Comments'' or by using the search function.

FOR FURTHER INFORMATION CONTACT: Angela Duncan, 571–372–7574, *whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil.*

SUPPLEMENTARY INFORMATION:

Title; Associated Form; and OMB Number: American Forces Network Connect and American Forces Network Now; OMB Control Number 0704–0547.

Type of Request: Revision.

Number of Respondents: 40,000.

Responses per Respondent: 1.

Annual Responses: 40,000.

Average Burden per Response: 10 minutes.

Annual Burden Hours: 6,667.

Needs and Uses: The information collection is necessary to obtain and audit the eligibility of DoD employees, DoD contractors, Department of State employees, military personnel (including retirees and active reservists) and their family members outside the United States, its territories or possessions, to receive restricted American Forces Network programming services (*i.e.,* radio, television, and web streaming services). Data will also be collected to ensure the DMA provides its services in the most efficient and cost-effective manner.

Affected Public: Individuals or households.

Frequency: On occasion.

Respondent's Obligation: Voluntary.

OMB Desk Officer: Ms. Jasmeet Seehra.

You may also submit comments and recommendations, identified by Docket ID number and title, by the following method:

- *Federal eRulemaking Portal: https://www.regulations.gov.* Follow the instructions for submitting comments.

Instructions: All submissions received must include the agency name, Docket ID number, and title for this **Federal Register** document. The general policy for comments and other submissions from members of the public is to make these submissions available for public viewing on the internet at *https://www.regulations.gov* as they are received without change, including any personal identifiers or contact information.

DOD Clearance Officer: Ms. Angela Duncan.

Requests for copies of the information collection proposal should be sent to Ms. Duncan at *whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil.*

Dated: February 15, 2022.

Aaron T. Siegel,

Alternate OSD Federal Register Liaison Officer, Department of Defense.

[FR Doc. 2022–03729 Filed 2–18–22; 8:45 am]

BILLING CODE 5001–06–P

DEPARTMENT OF DEFENSE

Office of the Secretary

[Docket ID: DoD–2021–OS–0116]

Submission for OMB Review; Comment Request

AGENCY: Defense Counterintelligence and Security Agency (DCSA), Department of Defense (DoD).

ACTION: 30-Day information collection notice.

SUMMARY: The Department of Defense has submitted to OMB for clearance the following proposal for collection of information under the provisions of the Paperwork Reduction Act.

DATES: Consideration will be given to all comments received by March 24, 2022.

ADDRESSES: Written comments and recommendations for the proposed information collection should be sent within 30 days of publication of this notice to *www.reginfo.gov/public/do/PRAMain.* Find this particular information collection by selecting ''Currently under 30-day Review—Open for Public Comments'' or by using the search function.

FOR FURTHER INFORMATION CONTACT: Angela Duncan, 571–372–7574, or *whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil.*

SUPPLEMENTARY INFORMATION:

Title; Associated Form; and OMB Number: National Industrial Security System; DCSA Form 147; OMB Control Number 0705–0006.

Type of Request: Revision.

Number of Respondents: 11,671.

Responses per Respondent: 2.

Annual Responses: 23,342.

Average Burden per Response: 1.5 hours.

Annual Burden Hours: 35,013.

Needs and Uses: The information collection requirement is necessary for DCSA to oversee the National Industrial Security Program (NISP) pursuant to Executive Order 12829. The National Industrial Security System (NISS) is the primary collection instrument for DCSA oversight of the NISP and maintaining data associated with cleared facilities and their oversight. The NISS is the repository of records related to the maintenance of information pertaining to contractor facility security clearances (FCL) and contractor capabilities to protect classified information in its possession. The information is utilized to determine if a company and its key management personnel are eligible for issuance of a facility clearance in accordance with 32 CFR part 117 requirements. In addition, information is utilized to inform Government Contracting Activities of contractor's ability to maintain facility clearance status and/or storage capability as well as to analyze vulnerabilities identified within security programs and ensure proper mitigation actions are taken to preclude unauthorized disclosure of classified information. As part of the FCL process, contractors must also complete and maintain a DCSA Form 147 in NISS. The form provides a single document to record the numerous characteristics of Open Storage Areas that are required to be reviewed for contractor facilities to be approved by DCSA for classified storage.

Affected Public: Business or other for-profit; not-for-profit institutions.

Frequency: As required.

Respondent's Obligation: Voluntary.

OMB Desk Officer: Ms. Jasmeet Seehra.

You may also submit comments and recommendations, identified by Docket ID number and title, by the following method:

• *Federal eRulemaking Portal: http://www.regulations.gov.* Follow the instructions for submitting comments.

Instructions: All submissions received must include the agency name, Docket ID number, and title for this **Federal Register** document. The general policy for comments and other submissions from members of the public is to make these submissions available for public viewing on the internet at *http://www.regulations.gov* as they are received without change, including any personal identifiers or contact information.

DOD Clearance Officer: Ms. Angela Duncan.

Requests for copies of the information collection proposal should be sent to Ms. Duncan at *whs.mc-alex.esd.mbx.dd-dod-information-collections@mail.mil.*

Dated: February 15, 2022.

Aaron T. Siegel,

Alternate OSD Federal Register, Liaison Officer, Department of Defense.

[FR Doc. 2022–03735 Filed 2–18–22; 8:45 am]

BILLING CODE 5001–06–P

DEPARTMENT OF EDUCATION

Applications for New Awards; Magnet Schools Assistance Program

AGENCY: Office of Elementary and Secondary Education, Department of Education.

ACTION: Notice.

SUMMARY: The Department of Education (Department) is issuing a notice inviting applications (NIA) for fiscal year (FY) 2022 for the Magnet Schools Assistance Program (MSAP), Assistance Listing Number 84.165A. This notice relates to the approved information collection under OMB control number 1855–0011.

DATES:

Application Available: February 22, 2022.

Deadline for Notice of Intent to Apply: March 24, 2022.

Deadline for Transmittal of Applications: April 25, 2022.

Deadline for Intergovernmental Review: July 7, 2022.

PreApplication—Webinar Information: No later than March 4, 2022, MSAP will begin holding webinars to provide technical assistance to interested applicants. Detailed information regarding these webinars will be provided on the MSAP website at *https://oese.ed.gov/offices/office-of-discretionary-grants-support-services/school-choice-improvement-programs/magnet-school-assistance-program-msap/.* Recordings of all webinars will be available on the MSAP website following the sessions.

ADDRESSES: For the addresses for obtaining and submitting an application, please refer to our Common Instructions for Applicants to Department of Education Discretionary Grant Programs, published in the **Federal Register** on December 27, 2021 (86 FR 73264) and available at *www.federalregister.gov/d/2021-27979.* Please note that these Common Instructions supersede the version published on February 13, 2019, and, in part, describe the transition from the requirement to register in *SAM.gov* a Data Universal Numbering System (DUNS) number to the implementation of the Unique Entity Identifier (UEI). More information on the phase-out of DUNS numbers is available at *www2.ed.gov/about/offices/list/ofo/docs/unique-entity-identifier-transition-fact-sheet.pdf.*

FOR FURTHER INFORMATION CONTACT: Gillian Cohen-Boyer, U.S. Department of Education, 400 Maryland Avenue SW, Room 3C134, Washington, DC 20202–5970. Telephone: (202) 401–1259. Email: *msap.team@ed.gov.*

If you use a telecommunications device for the deaf (TDD) or a text telephone (TTY), call the Federal Relay Service (FRS), toll free, at 1–800–877–8339.

SUPPLEMENTARY INFORMATION:

Full Text of Announcement

I. Funding Opportunity Description

Purpose of Program: MSAP, authorized under Title IV, part D of the

Elementary and Secondary Education Act of 1965, as amended (ESEA), provides grants to local educational agencies (LEAs) and consortia of LEAs to create or revise magnet schools under required or voluntary desegregation plans.

As written in section 4401(b) of the ESEA, 20 U.S.C. 7231, ''the purpose of MSAP is to assist LEAs in the desegregation of schools by providing financial assistance to eligible LEAs for: (1) The elimination, reduction, or prevention of minority group isolation (MGI) in elementary schools and secondary schools with substantial proportions of minority students, which shall include assisting in the efforts of the United States to achieve voluntary desegregation in public schools; (2) the development, implementation, and expansion of magnet school programs that will assist LEAs in achieving systemic reforms and providing all students the opportunity to meet challenging State academic standards; (3) the development, design, and expansion of innovative educational methods and practices that promote diversity and increase choices in public elementary schools and public secondary schools and public educational programs; (4) courses of instruction within magnet schools that will substantially strengthen the knowledge of academic subjects and the attainment of tangible and marketable career, technological, and professional skills of students attending such schools; (5) improving the capacity of LEAs, including through professional development, to continue operating magnet schools at a high performance level after Federal funding for the magnet schools is terminated; and (6) ensuring that all students enrolled in the magnet school programs have equitable access to high quality education that will enable the students to succeed academically and continue with postsecondary education or employment.''

Background: Since its inception nearly 40 years ago, MSAP has supported LEAs in establishing numerous successful magnet schools, defined under section 4402 of the ESEA, 20 U.S.C. 7231a, as public elementary or secondary schools that offer ''a special curriculum capable of attracting substantial numbers of students of different racial backgrounds.'' In this competition, the Department seeks to focus applicants on effectively addressing the legislative purpose of the MSAP statute—assisting LEAs in the desegregation of schools through the use of magnet schools—by requiring applicants to demonstrate how they intend to align the elements of their proposed MSAP projects with their required (*e.g.,* court-ordered) or voluntary desegregation plans, which must be submitted as a component of their applications under sections 4403 and 4404 of the ESEA, 20 U.S.C. 7231b and 7231c. In accordance with 34 CFR 280.2 and 280.20, under Section III, Part 4 of this notice, applicants must provide context and a summary description for the goals of their desegregation plan and how Federal funding for magnet schools will assist in achieving the LEAs' specific goals related to the reduction, prevention, or elimination of MGI. This information will assist the Department in confirming the LEA's eligibility for an award and inform the Department's review of the applicant's project narrative against the selection criteria outlined in Section V, Part 1 of this notice.

Beyond proposing high-quality projects that provide unique educational opportunities capable of attracting substantial numbers of students of different backgrounds, we encourage applicants to employ a range of strategies to maximize the potential of bringing students together from different racial backgrounds. For example, under section 4407 of the ESEA, 20 U.S.C. 7231f, MSAP permits LEAs to support student transportation to and from magnet schools, provided the transportation costs are sustainable beyond the grant period and the costs do not constitute a significant portion of the LEA's grant funds. Under Competitive Preference Priority 5, we provide competitive preference for applicants that propose to establish, expand, or strengthen inter-district and regional magnet programs consistent with section 4407(a)(8) of the ESEA, 20 U.S.C. 7231f.[1] Responses to Competitive Preference Priority 5 could include, among a range of other activities, establishing and participating in a voluntary, inter-district transfer program for students from varied neighborhoods; making strategic decisions regarding the selection of magnet school sites or revising school boundaries, attendance zones, or feeder patterns to take into account neighboring communities; and formal merging or coordinating among multiple educational jurisdictions in order to pool resources, provide transportation, and expand high-quality public school options for students from low-income backgrounds.

In order to increase the overall diversity of the school settings in which students learn, under Competitive Preference Priority 6, we provide competitive preference to LEAs that propose to connect their projects to broader school and district plans for increasing students' access to high-quality instruction delivered by a diverse group of educators.

In Invitational Priority 1, we encourage applicants to prioritize the establishment of whole-school magnet programs in order to promote learning for students in ways that ensure all students within a school have the opportunity to successfully partake in the special curriculum and meet challenging academic content standards and decrease the likelihood of tracking within schools.

Additionally, the Department is interested in projects that propose to coordinate with relevant government entities—such as housing and transportation authorities, among others—given the impact that other public policy choices may have on the composition of a school's student body. For example, the Department seeks applications connecting MSAP projects to nearby public housing redevelopment projects, such as those funded through the Department of Housing and Urban Development (HUD) Choice Neighborhoods Initiative and the HUD Rental Assistance Demonstration program. Accordingly, under Invitational Priority 2, and more generally through the selection criteria outlined in Section V of this notice, we encourage projects that propose to coordinate efforts with housing and transportation authorities, as well as other Federal, State, or local agencies, or community-based organizations.

Finally, to assist grantees in grounding their programs in the existing knowledge base as well as identifying practices that will improve LEA capacity to continue operating magnet schools at high performance levels beyond the funding period, this competition provides for applicants to address evidence in two ways. Under Competitive Preference Priority 2, applicants may demonstrate that they intend to implement activities that are evidence-based in their proposed MSAP project schools. Additionally, in response to the quality of the project evaluation selection criterion,

[1] We note the FY 2022 House Appropriations Report (H.R. Rep. No. 117–96 at 276 (2021)) directs the Department to include such a priority, citing a 2019 report by the Urban Institute, which indicated that two-thirds of total school segregation in metropolitan areas is due to segregation between, rather than within, school districts. Monarrez, Tómas, Kisida, Brian, and Chingos, Matthew. When is a school segregated? Making sense of segregation 65 years after *Brown* v. *Board of Education.* Urban Institute, September 27, 2019. Retrieved January 3, 2021 from *www.urban.org/research/publication/when-school-segregated-making-sense-segregation-65-years-after-brown-v-board-education.*

applicants should discuss how they will monitor the implementation and results of their MSAP project activities, as well as how they intend to identify practices to be sustained beyond the project period through the final evaluation reports described in Section VI, Part 4(c) of this notice, which should be designed to yield results at the level of promising evidence or higher.

Priorities: This competition includes six competitive preference priories and two invitational priorities. In accordance with 34 CFR 75.105(b)(2)(ii), Competitive Preference Priorities 1 and 3 are from the MSAP regulations at 34 CFR 280.32. In accordance with 34 CFR 75.105(b)(2)(iv), Competitive Preference Priorities 2 and 4 are from section 4406 of the ESEA, 20 U.S.C. 7231e. In accordance with 34 CFR 75.105(b)(2)(v), Competitive Preference Priority 5 is from allowable activities specified in section 4407 of the ESEA, 20 U.S.C. 7231f. Competitive Preference Priority 6 is from the Final Priorities and Definitions—Secretary's Supplemental Priorities and Definitions for Discretionary Grants Programs, published in the **Federal Register** on December 10, 2021 (86 FR 70612) (Supplemental Priorities).

Competitive Preference Priorities: For FY 2022 and any subsequent year in which we make awards from the list of unfunded applications from this competition, these priorities are competitive preference priorities. Under 34 CFR 75.105(c)(2)(i), we award one additional point to an application that meets Competitive Preference Priority 1; up to three additional points to an application, depending on how well the application meets Competitive Preference Priority 2; up to two additional points to an application, depending on how well the application meets Competitive Preference Priority 3; up to three additional points to an application, depending on how well the application meets Competitive Preference Priority 4; up to four additional points to an application depending on how well the application meets Competitive Preference Priority 5; and up to two additional points to an application depending on how well the application meets Competitive Preference Priority 6.

Based on the quality of the applicant's response in addressing any or all of these priorities, an application may be awarded up to a total of 15 additional points. Applicants may apply under any, all, or none of the competitive preference priorities. The maximum possible points for each competitive preference priority are indicated in parentheses following the name of the priority. These points are in addition to any points the application earns under the selection criteria in this notice.

These priorities are:

Competitive Preference Priority 1—Need for Assistance (0 or 1 point).

The Secretary evaluates the applicant's need for assistance by considering—

(1) The costs of fully implementing the magnet schools project as proposed;

(2) The resources available to the applicant to carry out the project if funds under the program were not provided;

(3) The extent to which the costs of the project exceed the applicant's resources; and

(4) The difficulty of effectively carrying out the approved plan and the project for which assistance is sought, including consideration of how the design of the magnet school project—*e.g.,* the type of program proposed, the location of the magnet school within the LEA—impacts the applicant's ability to successfully carry out the approved plan.

Competitive Preference Priority 2—New or Revised Magnet Schools Projects and Strength of Evidence to Support Proposed Projects (up to 3 points).

The Secretary determines the extent to which the applicant proposes to (1) carry out a new, evidence-based magnet school program; (2) significantly revise an existing magnet school program, using evidence-based methods and practices, as available; or (3) replicate an existing magnet school program that has a demonstrated record of success in increasing student academic achievement and reducing isolation of minority groups.

Competitive Preference Priority 3—Selection of Students (up to 2 points).

The Secretary determines the extent to which the applicant proposes to select students to attend magnet schools by methods such as lottery, rather than through academic examination.

Competitive Preference Priority 4—Increasing Racial Integration and Socioeconomic Diversity (up to 3 points).

The Secretary determines the extent to which the applicant proposes to increase racial integration by taking into account socioeconomic diversity in designing and implementing magnet school programs.

Competitive Preference Priority 5—Inter-district and Regional Approaches (up to 4 points).

Under this priority, an applicant must demonstrate that grant funds will be used to enable the LEA, or consortium of such agencies, or other organizations partnered with such agency or consortium, to establish, expand, or strengthen inter-district and regional magnet programs.

Competitive Preference Priority 6—Supporting a Diverse Educator Workforce and Professional Growth to Strengthen Student Learning (up to 2 points).

Projects that are designed to increase the proportion of well-prepared, diverse, and effective educators serving students, with a focus on underserved students, through building or expanding high-poverty school districts' capacity to hire, support, and retain an effective and diverse educator workforce, through one or both of the following:

(a) Adopting or expanding comprehensive, strategic career and compensation systems that provide competitive compensation and include opportunities for educators to serve as mentors and instructional coaches, or to take on additional leadership roles and responsibilities for which educators are compensated.

(b) Developing data systems, timelines, and action plans for promoting inclusive and bias-free human resources practices that promote and support development of educator diversity.

Invitational Priorities: For FY 2022 and any subsequent year in which we make awards from the list of unfunded applications from this competition, these are invitational priorities. Under 34 CFR 75.105(c)(1) we do not give an application that meets these invitational priorities a competitive or absolute preference over other applications.

These priorities are:

Invitational Priority 1—Whole-School Magnet Programs.

Projects that propose to implement ''whole-school magnet'' schools in which all students enrolled in the school participate in the magnet school program, rather than schools that implement magnet programs within schools which are offered to less than the entire school population.

Invitational Priority 2—Coordination Across Agencies and Organizations.

Projects that propose to coordinate efforts with relevant governmental agencies, such as housing or transportation authorities, or community organizations to promote student diversity and achievement in magnet schools. This may include projects coordinated with public housing redevelopment efforts, such as those funded through the HUD Choice Neighborhoods Initiative or the HUD Rental Assistance Demonstration program.

Definitions: The definition of ''evidence-based'' is from 20 U.S.C.

7801. The definitions of ''desegregation'' and ''feeder school'' are from 34 CFR 280.4. The definitions of ''demonstrates a rationale,'' ''experimental study,'' ''logic model,'' ''project component,'' ''promising evidence,'' ''quasi-experimental design study,'' ''relevant outcome,'' and ''What Works Clearinghouse Handbooks'' are from 34 CFR 77.1(c). The definitions of ''children or students with disabilities,'' ''disconnected youth,'' ''educator,'' ''English learner,'' ''military- or veteran-connected student,'' and ''underserved student'' are from the Supplemental Priorities.

Children or students with disabilities means children with disabilities as defined in section 602(3) of the Individuals with Disabilities Education Act (IDEA) (20 U.S.C. 1401(3)) and 34 CFR 300.8, or students with disabilities, as defined in the Rehabilitation Act of 1973 (29 U.S.C. 705(37), 705(202)(B)).

Demonstrates a rationale means a key project component included in the project's logic model is informed by research or evaluation findings that suggest the project component is likely to improve relevant outcomes.

Desegregation, in reference to a plan, means a plan for the reassignment of children or faculty to remedy the illegal separation of minority group children or faculty in the schools of an LEA or a plan for the reduction, elimination, or prevention of minority group isolation in one or more of the schools of an LEA.

Disconnected youth means an individual, between the ages 14 and 24, who may be from a low-income background, experiences homelessness, is in foster care, is involved in the justice system, or is not working or not enrolled in (or at risk of dropping out of) an educational institution.

Educator means an individual who is an early learning (as defined in the Supplemental Priorities) educator, teacher, principal or other school leader, specialized instructional support personnel (*e.g.,* school psychologist, counselor, school social worker, early intervention service personnel), paraprofessional, or faculty.

English learner means an individual who is an English learner as defined in section 8101(20) of the ESEA, or an individual who is an English language learner as defined in section 203(7) of the Workforce Innovation and Opportunity Act.

Evidence-based means an activity, strategy, or intervention that—

(i) Demonstrates a statistically significant effect on improving student outcomes or other relevant outcomes based on—

(A) Strong evidence from at least one well-designed and well-implemented experimental study;

(B) Moderate evidence from at least one well-designed and well-implemented quasi-experimental study; or

(C) Promising evidence from at least one well-designed and well-implemented correlational study with statistical controls for selection bias; or

(ii) (A) Demonstrates a rationale based on high-quality research findings or positive evaluation that such activity, strategy, or intervention is likely to improve student outcomes or other relevant outcomes; and

(B) Includes ongoing efforts to examine the effects of such activity, strategy, or intervention.

Experimental study means a study that is designed to compare outcomes between two groups of individuals (such as students) that are otherwise equivalent except for their assignment to either a treatment group receiving a project component or a control group that does not. Randomized controlled trials, regression discontinuity design studies, and single-case design studies are the specific types of experimental studies that, depending on their design and implementation (*e.g.,* sample attrition in randomized controlled trials and regression discontinuity design studies), can meet What Works Clearinghouse (WWC) standards without reservations as described in the WWC Handbooks):

(i) A randomized controlled trial employs random assignment of, for example, students, teachers, classrooms, or schools to receive the project component being evaluated (the treatment group) or not to receive the project component (the control group).

(ii) A regression discontinuity design study assigns the project component being evaluated using a measured variable (*e.g.,* assigning students reading below a cutoff score to tutoring or developmental education classes) and controls for that variable in the analysis of outcomes.

(iii) A single-case design study uses observations of a single case (*e.g.,* a student eligible for a behavioral intervention) over time in the absence and presence of a controlled treatment manipulation to determine whether the outcome is systematically related to the treatment.

Feeder school means a school from which students are drawn to attend a magnet school.

Logic model (also referred to as a theory of action) means a framework that identifies key project components of the proposed project (*i.e.,* the active ''ingredients'' that are hypothesized to be critical to achieving the relevant outcomes) and describes the theoretical and operational relationships among the key project components and relevant outcomes.

Military- or veteran-connected student means a child participating in an early learning (as defined in the Supplemental Priorities) program, a student enrolled in preschool through grade 12, or a student enrolled in career and technical education or postsecondary education who has a parent or guardian who is a veteran of the uniformed services (as defined by 37 U.S.C. 101), in the Army, Navy, Air Force, Marine Corps, Coast Guard, Space Force, National Guard, Reserves, National Oceanic and Atmospheric Administration, or Public Health Service or is a veteran of the uniformed services with an honorable discharge (as defined by 38 U.S.C. 3311).

Project component means an activity, strategy, intervention, process, product, practice, or policy included in a project. Evidence may pertain to an individual project component or to a combination of project components (*e.g.,* training teachers on instructional practices for English learners and follow-on coaching for these teachers).

Promising evidence means that there is evidence of the effectiveness of a key project component in improving a relevant outcome, based on a relevant finding from one of the following:

(i) A practice guide prepared by WWC reporting a ''strong evidence base'' or ''moderate evidence base'' for the corresponding practice guide recommendation;

(ii) An intervention report prepared by the WWC reporting a ''positive effect'' or ''potentially positive effect'' on a relevant outcome with no reporting of a ''negative effect'' or ''potentially negative effect'' on a relevant outcome; or

(iii) A single study assessed by the Department, as appropriate, that-–

(A) Is an experimental study, a quasi-experimental design study, or a well-designed and well-implemented correlational study with statistical controls for selection bias (*e.g.,* a study using regression methods to account for differences between a treatment group and a comparison group); and

(B) Includes at least one statistically significant and positive (*i.e.,* favorable) effect on a relevant outcome.

Quasi-experimental design study means a study using a design that attempts to approximate an experimental study by identifying a comparison group that is similar to the treatment group in important respects. This type of study, depending on design and implementation (*e.g.,* establishment

of baseline equivalence of the groups being compared), can meet WWC standards with reservations, but cannot meet WWC standards without reservations, as described in the WWC Handbooks.

Relevant outcome means the student outcome(s) or other outcome(s) the key project component is designed to improve, consistent with the specific goals of the program.

Underserved student means a student (which includes students in K–12 programs) in one or more of the following subgroups:

(a) A student who is living in poverty or is served by schools with high concentrations of students living in poverty.
(b) A student of color.
(c) A student who is a member of a federally recognized Indian Tribe.
(d) An English learner.
(e) A child or student with a disability.
(f) A disconnected youth.
(g) A technologically unconnected youth.
(h) A migrant student.
(i) A student experiencing homelessness or housing insecurity.
(j) A lesbian, gay, bisexual, transgender, queer or questioning, or intersex (LGBTQI+) student.
(k) A student who is in foster care.
(l) A student without documentation of immigration status.
(m) A pregnant, parenting, or caregiving student.
(n) A student impacted by the justice system, including a formerly incarcerated student.
(o) A student performing significantly below grade level.
(p) A military- or veteran-connected student.

What Works Clearinghouse (WWC) Handbooks means the standards and procedures set forth in the WWC Standards Handbook, Versions 4.0 or 4.1, and WWC Procedures Handbook, Versions 4.0 or 4.1, or in the WWC Procedures and Standards Handbook, Version 3.0 or Version 2.1 (all incorporated by reference, see § 77.2). Study findings eligible for review under WWC standards can meet WWC standards without reservations, meet WWC standards with reservations, or not meet WWC standards. WWC practice guides and intervention reports include findings from systematic reviews of evidence as described in the WWC Handbooks documentation.

Note: The What Works Clearinghouse Procedures and Standards Handbooks are available at: *https://ies.ed.gov/ncee/wwc/Handbooks.*

Program Authority: 20 U.S.C. 7231–7231j.

Note: Projects will be awarded and must be operated in a manner consistent with discrimination requirements contained in Federal civil rights laws.

Applicable Regulations: (a) The Education Department General Administrative Regulations in 34 CFR parts 75, 77, 79, 81, 82, 84, 97, 98, and 99. (b) The Office of Management and Budget Guidelines to Agencies on Governmentwide Debarment and Suspension (Nonprocurement) in 2 CFR part 180, as adopted and amended as regulations of the Department in 2 CFR part 3485. (c) The Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards in 2 CFR part 200, as adopted and amended as regulations of the Department in 2 CFR part 3474. (d) The regulations for this program in 34 CFR part 280. (e) Supplemental Priorities.

II. Award Information

Type of Award: Discretionary grants.

Estimated Available Funds: The Administration has requested $149,000,000 for the MSAP program for FY 2022, of which we would use an estimated $135,000,000 for awards under this competition. The actual level of funding, if any, depends on final congressional action. However, we are inviting applications to allow enough time to complete the grant process before the end of the current fiscal year, if Congress appropriates funds for this program.

Contingent upon the availability of funds and the quality of applications, we may make additional awards in FY 2023 from the list of unfunded applications from this competition.

Estimated Range of Awards: $1,000,000–$3,500,000 per budget year.

Maximum Award: We will not make an award to an LEA or a consortium of LEAS exceeding $15,000,000 for the project period. Under section 4408(b) of the ESEA, 20 U.S.C. 7231h, grantees may not expend more than 50 percent of the year one grant funds and not more than 15 percent of year two and three grant funds on planning activities. Professional development is not considered to be a planning activity.

Note: Yearly award amounts may vary.

Estimated Number of Awards: 30–40.

Note: The Department is not bound by any estimates in this notice.

Project Period: Up to 60 months.

III. Eligibility Information

1. *Eligible Applicants:* LEAs or consortia of LEAs implementing a desegregation plan as specified in section III. 4 of this notice.

2. *Cost Sharing or Matching:* This program does not require cost sharing or matching.

3. *Subgrantees:* A grantee under this competition may not award subgrants to entities to directly carry out project activities described in its application.

4. *Other—Desegregation Plans:* Per section 4404 of the ESEA and 34 CFR 280.20(e) and (f) of the regulations, to establish eligibility to receive MSAP assistance, applicants must also submit with their applications one of the following types of desegregation plans: (i) A desegregation plan required by a court order; (ii) a desegregation plan required by a State agency or an official of competent jurisdiction; (iii) a desegregation plan required by the Department's Office for Civil Rights (OCR) under Title VI of the Civil Rights Act of 1964 (Title VI); or (iv) a voluntary desegregation plan adopted by the applicant and submitted to the Department for approval as part of the application. Under the MSAP regulations, applicants are required to provide all of the information required in 34 CFR 280.20(a) through (g) in order to satisfy the civil rights eligibility requirements found in 34 CFR 280.2(a)(2) and (b).

Note: While voluntary desegregation plans must be approved by the school board of the submitting LEA or consortium of LEAs, these desegregation plans do not require Department approval prior to application submission. Review of applicants' voluntary desegregation plans is a component of the application review process under section 4404 of the ESEA, 20 U.S.C.7231c, and 34 CFR 280.2(b) to ensure that all grantees receiving funds have desegregation plans that are adequate under Title VI and, for each magnet school for which funding is sought, the magnet school will reduce, eliminate, or prevent MGI within the project period, either in the magnet school or in a feeder school, as appropriate.

In addition to the particular data and other items for required and voluntary desegregation plans described in the application package, per 34 CFR 280.20(e)(f) and(g), an application must include—

- Projected enrollment by race and ethnicity for magnet and feeder schools;
- Signed civil rights assurances; and
- An assurance that the desegregation plan is being implemented or will be implemented if the application is funded.

Finally, under section 4405(b)(1)(A) of the ESEA, 20 U.S.C. 7231d(b)(1)(A), applicants must describe ''how a grant awarded under this part will be used to promote desegregation, including any available evidence on, or if such evidence is not available, a rationale,

based on current research, for how the proposed magnet school programs will increase interaction among students of different social, economic, ethnic, and racial backgrounds.'' To assist applicants in submitting succinct and comprehensive information to this end, the Application Package for this competition includes a Desegregation Plan Form OMB–1855–0011. Through this form, applicants will summarize their desegregation plan and describe: The plan's overarching goals; the definition of MGI being used by the LEA and the specific schools (either magnets or feeders) and racial/ethnic group(s) that have been identified as in need of reduction, prevention, or elimination of MGI; how these particular schools are currently part of the LEA's school configuration and enrollment patterns; and how the MSAP project and its proposed magnets are designed to effectively prevent, reduce, or eliminate MGI in elementary or secondary schools with substantial proportions of minority students.

Note: Section 4401(b)(1) of the ESEA, 20 U.S.C. 7231, describes the desegregation purpose of MSAP as the elimination, reduction, or prevention of MGI in elementary and secondary schools with *substantial* proportions of minority students. In accordance with section 4404 of the ESEA (20 U.S.C. 7231c) and 34 CFR 280.2, projects that are not designed to reduce, eliminate, or prevent MGI and to bring students from different social, economic, ethnic, and racial backgrounds together in accordance with an approved desegregation plan, are not eligible for MSAP funding. Additionally, for the purposes of the MSAP program, ''feeder school'' is defined in 34 CFR 280.4(b) as ''a school from which students are drawn to attend the magnet school,'' and refers to the schools that students attending magnet schools would otherwise have attended had the magnet school not been available.

Applicants are encouraged to elaborate on these summary descriptions and the content of their desegregation plans in the application's project narrative described in Section V of this notice and with an accompanying logic model demonstrating the conceptual framework for and graphically depicting how the applicant intends to achieve the summarized desegregation plan goals outlined above.

Required Desegregation Plans

1. Desegregation plans required by a court order. An applicant that submits a desegregation plan required by a court order must submit complete and signed copies of all court documents demonstrating that the magnet schools are a part of the approved desegregation plan. Examples of the types of documents that would meet this requirement include a Federal or State court order that establishes specific magnet schools, amends a previous order or orders by establishing additional or different specific magnet schools, requires or approves the establishment of one or more unspecified magnet schools, or authorizes the inclusion of magnet schools at the discretion of the applicant.

2. Desegregation plans required by a State agency or official of competent jurisdiction. An applicant submitting a desegregation plan ordered by a State agency or official of competent jurisdiction must provide documentation that shows that the desegregation plan was ordered based upon a determination that State law was violated. In the absence of this documentation, the applicant should consider its desegregation plan to be a voluntary plan and submit the data and information necessary for voluntary plans.

3. Desegregation plans required by OCR under Title VI. An applicant that submits a desegregation plan required by OCR under Title VI must submit a complete copy of the desegregation plan demonstrating that magnet schools are part of the approved plan or that the plan authorizes the inclusion of magnet schools at the discretion of the applicant.

4. Modifications to required desegregation plans. A previously approved desegregation plan that does not include the magnet school or program for which the applicant is now seeking assistance must be modified to include the magnet school component. The modification to the desegregation plan must be approved by the court, agency, or official that originally approved the plan. An applicant that wishes to modify a previously approved OCR Title VI desegregation plan to include different or additional magnet schools must submit the proposed modification for review and approval to the OCR regional office that approved its original plan.

An applicant should indicate in its application if it is seeking to modify its previously approved desegregation plan. However, all applicants must submit proof of approval of all modifications to their plans to the Department by June 22, 2022. Proof of plan modifications should be emailed to Gillian Cohen-Boyer at *msap.team@ed.gov* or mailed to her at: U.S. Department of Education, 400 Maryland Avenue SW, Room 3C134, Washington, DC 20202–5970. Telephone: (202) 401–1259.

Voluntary Desegregation Plans

A voluntary desegregation plan must be approved by the Department each time an application is considered for funding. Even if the Department has approved a voluntary desegregation plan in an LEA in the past, to be reviewed, the desegregation plan must be resubmitted with the application by the application deadline.

The Department will determine on a case-by-case basis whether a district's voluntary plan meets the statutory purpose of reducing, eliminating, or preventing MGI in its magnet or feeder schools, considering the unique circumstances in each district and school. As part of this consideration, the Department will consider, consistent with 20 U.S.C. 7231(b)(1), whether the project is designed to eliminate, reduce, or prevent MGI in elementary and/or secondary schools with substantial proportions of students from any minority group(s). We also note that Congress has recognized that ''segregation exists between minority and nonminority students as well as among students of different minority groups.'' Section 4401(a)(4)(C) of the ESEA, 20 U.S.C. 7231(a)(4)(C). This case-by-case review will include an examination of the factual basis for any proposed increases in enrollment of students from minority groups at district schools; for example, the Department will consider whether a plan to reduce, eliminate, or prevent MGI at a magnet school or at a feeder school would significantly increase MGI at any other magnet or feeder school in the LEA at the grade levels served by the magnet school.

An applicant's voluntary desegregation plan must describe how the LEA defines or identifies MGI; demonstrate how the LEA will reduce, eliminate, or prevent MGI for each magnet school in the proposed project, and, if relevant, at identified feeder schools; and demonstrate that the proposed voluntary desegregation plan is adequate under Title VI.

Under 34 CFR 280.20(f) and (g), applicants with voluntary desegregation plans must submit complete and accurate enrollment forms and other information to demonstrate their eligibility (specific requirements are detailed in the application package).

Voluntary desegregation plan applicants must submit documentation of school board approval or documentation of other official adoption of the plan as required under 34 CFR

280.20(f)(2) when submitting their application. LEAs that were previously under a required desegregation plan, but have achieved unitary status and so are voluntary desegregation plan applicants, typically would not need to include court orders. Rather, such applications should provide the documentation discussed in this section.

5. *Single-Sex Programs:* An applicant proposing to operate a single-sex magnet school or a coeducational magnet school that offers single-sex classes or extracurricular activities will undergo a review of its proposed single-sex educational program to determine compliance with applicable nondiscrimination laws, including the Equal Protection Clause of the U.S. Constitution (as interpreted in *United States* v. *Virginia,* 518 U.S. 515 (1996), and other cases) and Title IX of the Education Amendments of 1972 (20 U.S.C. 1681, *et seq.*) and its regulations—including 34 CFR 106.34. This review may require the applicant to provide additional fact-specific information about the single-sex program.

IV. Application and Submission Information

1. *Application Submission Instructions:* Applicants are required to follow the Common Instructions for Applicants to Department of Education Discretionary Grant Programs, published in the **Federal Register** on December 27, 2021 (86 FR 73264) and available at *www.federalregister.gov/d/2021–27979,* which contain requirements and information on how to submit an application. Please note that these Common Instructions supersede the version published on February 13, 2019, and, in part, describe the transition from the requirement to register in *SAM.gov* a DUNS number to the implementation of the UEI. More information on the phase-out of DUNS numbers is available at *www2.ed.gov/about/offices/list/ofo/docs/unique-entity-identifier-transition-fact-sheet.pdf.*

2. *Submission of Proprietary Information:* Given the types of projects that may be proposed in applications for the MSAP, your application may include business information that you consider proprietary. In 34 CFR 5.11, we define ''business information'' and describe the process we use in determining whether any of that information is proprietary, and thus protected from disclosure under Exemption 4 of the Freedom of Information Act (5 U.S.C. 552, as amended).

Because we plan to make successful applications available to the public, you may wish to request confidentiality of business information.

Consistent with Executive Order 12600, please designate in your application any information that you believe is exempt from disclosure under Exemption 4. In the appropriate Appendix section of your application, under ''Other Attachments Form,'' please list the page number or numbers on which we can find this information. For additional information, please see 34 CFR 5.11(c).

3. *Intergovernmental Review:* This program is subject to Executive Order 12372 and the regulations in 34 CFR part 79. Information about Intergovernmental Review of Federal Programs under Executive Order 12372 is in the application package for this competition.

4. *Funding Restrictions:* Unallowable costs are specified in section 4407 of the ESEA (20 U.S.C. 7231f). We reference additional regulations outlining funding restrictions in the *Applicable Regulations* section of this notice.

5. *Recommended Page Limit:* The application narrative is where you, the applicant, address the selection criteria that reviewers use to evaluate your application. We recommend that you (1) limit the application narrative to 150 pages and (2) use the following standards:

- A ''page'' is 8.5″ x 11″, on one side only, with 1″ margins at the top, bottom, and both sides.
- Double space (no more than three lines per vertical inch) all text in the application narrative, including titles, headings, footnotes, quotations, references, and captions, as well as all text in charts, tables, figures, and graphs.
- Use a font that is either 12 point or larger or no smaller than 10 pitch (characters per inch).
- Use one of the following fonts: Times New Roman, Courier, Courier New, or Arial.

The recommended page limit does not apply to the cover sheet; the budget section, including the narrative budget justification; the assurances, certifications, the desegregation plan and related information, and the tables used to respond to Competitive Preference Priorities 2 and 3; or the one-page abstract, the resumes, or letters of support. However, the recommended page limit does apply to all of the application narrative.

6. *Notice of Intent to Apply:* The Department will be able to review grant applications more efficiently if we know the approximate number of applicants that intend to apply. Therefore, we strongly encourage each potential applicant to notify the Department of their intent to submit an application. To do so, please submit your intent to apply by emailing *msap.team@ed.gov* with the subject line, ''[LEA Name(s)] Intent to Apply.'' Applicants that do not notify the Department of their intent to apply may still apply for funding.

V. Application Review Information

1. *Selection Criteria:* The selection criteria are from 34 CFR 75.210 and 280.31, and sections 4401 and 4405 of the ESEA.

The maximum score for all of the selection criteria is 100 points. The maximum score for each criterion is included in parentheses following the title of the specific selection criterion. Each criterion also includes the factors that reviewers will consider in determining the extent to which an applicant meets the criterion.

Points awarded under these selection criteria are in addition to any points an applicant earns under the competitive preference priorities in this notice. The maximum score that an application may receive under the competitive preference priorities and the selection criteria is 115 points.

(a) *Desegregation (up to 30 points).*

The Secretary reviews each application to determine the quality of the desegregation-related activities, including:

(1) The effectiveness of the applicant's proposed desegregation strategies for the elimination, reduction, or prevention of MGI in elementary schools and secondary schools with substantial proportions of minority students. (ESEA section 4401(b)(1))(up to 6 points)

(2) The effectiveness of its plan to recruit students from different social, economic, ethnic, and racial backgrounds into the magnet schools. (34 CFR 280.31) (up to 6 points)

(3) How it will foster interaction among students of different social, economic, ethnic, and racial backgrounds in classroom activities, extracurricular activities, or other activities in the magnet schools (or, if appropriate, in the schools in which the magnet school programs operate). (34 CFR 280.31) (up to 6 points)

(4) The importance or magnitude of the results or outcomes likely to be attained by the proposed project. (34 CFR 75.210) (up to 6 points)

(5) The extent to which there is a conceptual framework underlying the proposed research or demonstration activities and the quality of that framework. (34 CFR 75.210) (up to 6 points)

(b) *Quality of the project design (up to 30 points).*

The Secretary reviews each application to determine the quality of the project design. In determining the quality of the design of the proposed project, the Secretary considers the following factors:

(1) The manner and extent to which the magnet school program will increase student academic achievement in the instructional areas offered by the school, including any evidence, or if such evidence is not available, a rationale based on current research findings, to support such description. (ESEA section 4405(b)(1)(B)) (up to 6 points)

(2) The extent to which the training or professional development services to be provided by the proposed project are of sufficient quality, intensity, and duration to lead to improvements in practice among the recipients of those services. (34 CFR 75.210) (up to 6 points)

(3) The extent to which each magnet school for which funding is sought will encourage greater parental decision-making and involvement. (34 CFR 280.31) (up to 6 points)

(4) The extent to which the services to be provided by the proposed project involve the collaboration of appropriate partners for maximizing the effectiveness of project services. (34 CFR 75.210) (up to 6 points)

(5) How it will improve the capacity of the LEAs to continue operating magnet schools at a high performance level after Federal funding for the magnet schools is terminated. (ESEA section 4401(b)(5)) (up to 6 points)

(c) *Quality of the management plan (up to 15 points).*

The Secretary considers the quality of the management plan for the proposed project. In determining the quality of the management plan for the proposed project, the Secretary considers the following factors:

(1) The adequacy of the management plan to achieve the objectives of the proposed project on time and within budget, including clearly defined responsibilities, timelines, and milestones for accomplishing project tasks. (34 CFR 75.210) (up to 5 points)

(2) The extent to which the applicant is committed to the magnet school project and has identified other resources to continue support for the magnet school activities when assistance under this program is no longer available. (34 CFR 280.31) (up to 5 points)

(3) The extent to which the costs are reasonable in relation to the number of persons to be served and to the anticipated results and benefits. (34 CFR 75.210) (up to 5 points)

(d) *Quality of personnel (up to 5 points).*

(1) The Secretary reviews each application to determine the qualifications of the personnel the applicant plans to use on the project. The Secretary determines the extent to which—

(a) The project director (if one is used) is qualified to manage the project;

(b) Other key personnel are qualified to manage the project; and

(c) Teachers who will provide instruction in participating magnet schools are qualified to implement the special curriculum of the magnet schools. (34 CFR 280.31) (up to 3 points)

(2) To determine personnel qualifications, the Secretary considers experience and training in fields related to the objectives of the project, including the key personnel's knowledge of and experience in curriculum development and desegregation strategies. (34 CFR 280.31) (up to 2 points)

(e) *Quality of the project evaluation (up to 20 points).*

The Secretary considers the quality of the evaluation to be conducted of the proposed project. In determining the quality of the evaluation, the Secretary considers the following factors:

(1) How the applicant will assess, monitor, and evaluate the impact of the activities funded under this part on student achievement and integration. (ESEA section 4405(b)(1)(D)) (up to 6 points)

(2) The extent to which the methods of evaluation include the use of objective performance measures that are clearly related to the intended outcomes of the project and will produce quantitative and qualitative data to the extent possible. (34 CFR 75.210) (up to 7 points)

(3) The extent to which the methods of evaluation will, if well implemented, produce promising evidence (as defined in 34 CFR 77.1(c)) about the project's effectiveness. (34 CFR 75.210) (up to 7 points)

2. *Review and Selection Process:* We remind potential applicants that in reviewing applications in any discretionary grant competition, the Secretary may consider, under 34 CFR 75.217(d)(3), the past performance of the applicant in carrying out a previous award, such as the applicant's use of funds, achievement of project objectives, and compliance with grant conditions. The Secretary may also consider whether the applicant failed to submit a timely performance report or submitted a report of unacceptable quality.

In addition, in making a competitive grant award, the Secretary requires various assurances, including those applicable to Federal civil rights laws that prohibit discrimination in programs or activities receiving Federal financial assistance from the Department (34 CFR 100.4, 104.5, 106.4, 108.8, and 110.23).

3. *Risk Assessment and Specific Conditions:* Consistent with 2 CFR 200.206, before awarding grants under this competition the Department conducts a review of the risks posed by applicants. Under 2 CFR 200.208, the Secretary may impose specific conditions and, under 2 CFR 3474.10, in appropriate circumstances, high-risk conditions on a grant if the applicant or grantee is not financially stable; has a history of unsatisfactory performance; has a financial or other management system that does not meet the standards in 2 CFR part 200, subpart D; has not fulfilled the conditions of a prior grant; or is otherwise not responsible.

4. *Integrity and Performance System:* If you are selected under this competition to receive an award that over the course of the project period may exceed the simplified acquisition threshold (currently $250,000) under 2 CFR 200.206(a)(2), we must make a judgment about your integrity, business ethics, and record of performance under Federal awards—that is, the risk posed by you as an applicant—before we make an award. In doing so, we must consider any information about you that is in the integrity and performance system (currently referred to as the Federal Awardee Performance and Integrity Information System (FAPIIS), accessible through the System for Award Management. You may review and comment on any information about yourself that a Federal agency previously entered and that is currently in FAPIIS.

Please note that, if the total value of your currently active grants, cooperative agreements, and procurement contracts from the Federal Government exceeds $10,000,000, the reporting requirements in 2 CFR part 200, Appendix XII, require you to report certain integrity information to FAPIIS semiannually. Please review the requirements in 2 CFR part 200, Appendix XII, if this grant plus all the other Federal funds you receive exceed $10,000,000.

5. *In General:* In accordance with the Office of Management and Budget's guidance located at 2 CFR part 200, all applicable Federal laws, and relevant Executive guidance, the Department will review and consider applications for funding pursuant to this notice inviting applications in accordance with:

(a) Selecting recipients most likely to be successful in delivering results based

on the program objectives through an objective process of evaluating Federal award applications (2 CFR 200.205);

(b) Prohibiting the purchase of certain telecommunication and video surveillance services or equipment in alignment with section 889 of the National Defense Authorization Act of 2019 (Pub. L. 115–232) (2 CFR 200.216);

(c) Providing a preference, to the extent permitted by law, to maximize use of goods, products, and materials produced in the United States (2 CFR 200.322); and

(d) Terminating agreements in whole or in part to the greatest extent authorized by law if an award no longer effectuates the program goals or agency priorities (2 CFR 200.340).

VI. Award Administration Information

1. *Award Notices:* If your application is successful, we notify your U.S. Representative and U.S. Senators and send you a Grant Award Notification (GAN); or we may send you an email containing a link to access an electronic version of your GAN. We may notify you informally as well.

If your application is not evaluated or not selected for funding, we will notify you.

2. *Administrative and National Policy Requirements:* We identify administrative and national policy requirements in the application package and reference these and other requirements in the *Applicable Regulations* section of this notice.

We reference the regulations outlining the terms and conditions of an award in the *Applicable Regulations* section of this notice and include these and other specific conditions in the GAN. The GAN also incorporates your approved application as part of your binding commitments under the grant.

3. *Open Licensing Requirements:* Unless an exception applies, if you are awarded a grant under this competition, you will be required to openly license to the public grant deliverables created in whole, or in part, with Department grant funds. When the deliverable consists of modifications to pre-existing works, the license extends only to those modifications that can be separately identified and only to the extent that open licensing is permitted under the terms of any licenses or other legal restrictions on the use of pre-existing works. Additionally, a grantee or subgrantee that is awarded competitive grant funds must have a plan to disseminate these public grant deliverables. This dissemination plan can be developed and submitted after your application has been reviewed and selected for funding. For additional information on the open licensing requirements, please refer to 2 CFR 3474.20.

4. *Reporting:* (a) If you apply for a grant under this competition, you must ensure that you have in place the necessary processes and systems to comply with the reporting requirements in 2 CFR part 170 should you receive funding under the competition. This does not apply if you have an exception under 2 CFR 170.110(b).

(b) At the end of your project period, you must submit a final performance report, including financial information, as directed by the Secretary. If you receive a multiyear award, you must submit an annual performance report that provides the most current performance and financial expenditure information as directed by the Secretary under 34 CFR 75.118. The Secretary may also require more frequent performance reports under 34 CFR 75.720(c). For specific requirements on reporting, please go to *www.ed.gov/fund/grant/apply/appforms/appforms.html.*

(c) If awarded a grant, applicants must also submit a final evaluation report addressing the study to produce promising evidence under selection criterion factor (e)(3).

5. *Performance Measures:* For the purposes of reporting under 34 CFR 75.110, the following six performance measures have been established for the MSAP:

(a) The number and percentage of magnet schools receiving assistance whose student enrollment eliminates, reduces, or prevents MGI.

(b) The percentage increase of students from major racial and ethnic groups in magnet schools receiving assistance who score proficient or above on State assessments in reading/language arts as compared to the previous year.

(c) The percentage increase of students from major racial and ethnic groups in magnet schools receiving assistance who score proficient or above on State assessments in mathematics as compared to the previous year.

(d) The percentage of MSAP-funded magnet schools still operating magnet school programs three years after Federal funding ends.

(e) The percentage increase of students from major racial and ethnic groups in MSAP-funded magnet schools still operating magnet school programs who score proficient or above on State assessments in reading/language arts three years after Federal funding ends as compared to the final project year.

(f) The percentage increase of students from major racial and ethnic groups in MSAP-funded magnet schools still operating magnet school programs who score proficient or above on State assessments in mathematics three years after Federal funding ends as compared to the final project year.

6. *Continuation Awards:* In making a continuation award under 34 CFR 75.253, the Secretary considers, among other things: Whether a grantee has made substantial progress in achieving the goals and objectives of the project; whether the grantee has expended funds in a manner that is consistent with its approved application and budget; and, if the Secretary has established performance measurement requirements, whether the grantee has made substantial progress in achieving the performance targets in the grantee's approved application.

In making a continuation award, the Secretary also considers whether the grantee is operating in compliance with the assurances in its approved application, including those applicable to Federal civil rights laws that prohibit discrimination in programs or activities receiving Federal financial assistance from the Department (34 CFR 100.4, 104.5, 106.4, 108.8, and 110.23).

VII. Other Information

Accessible Format: On request to the program contact person listed under **FOR FURTHER INFORMATION CONTACT**, individuals with disabilities can obtain this document and a copy of the application package in an accessible format. The Department will provide the requestor with an accessible format that may include Rich Text Format (RTF) or text format (txt), a thumb drive, an MP3 file, braille, large print, audiotape, or compact disc, or other accessible format.

Electronic Access to This Document: The official version of this document is the document published in the **Federal Register**. You may access the official edition of the **Federal Register** and the Code of Federal Regulations at *www.govinfo.gov.* At this site you can view this document, as well as all other documents of this Department published in the **Federal Register**, in text or Portable Document Format (PDF). To use PDF, you must have Adobe Acrobat Reader, which is available free at the site.

You may also access documents of the Department published in the **Federal Register** by using the article search feature at *www.federalregister.gov.* Specifically, through the advanced search feature at this site, you can limit

your search to documents published by the Department.

Ruth E. Ryder,

Deputy Assistant Secretary for Policy and Programs, Office of Elementary and Secondary Education.

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BILLING CODE 4000–01–P

DEPARTMENT OF EDUCATION

Applications for New Awards; Technical Assistance and Dissemination To Improve Services and Results for Children With Disabilities—National Technical Assistance Center to Support Implementation and Scaling Up of Evidence-Based Practices

AGENCY: Office of Special Education and Rehabilitative Services, Department of Education.

ACTION: Notice.

SUMMARY: The Department of Education (Department) is issuing a notice inviting applications for new awards for fiscal year (FY) 2022 for the National Technical Assistance Center to Support Implementation and Scaling Up of Evidence-Based Practices, Assistance Listing Number (ALN) 84.326K. This notice relates to the approved information collection under OMB control number 1820–0028.

DATES:

Applications Available: February 22, 2022.

Deadline for Transmittal of Applications: April 25, 2022.

Deadline for Intergovernmental Review: June 22, 2022.

Pre-Application Webinar Information: No later than February 28, 2022, the Office of Special Education Programs (OSEP) will post details on pre-recorded informational webinars designed to provide technical assistance (TA) to interested applicants. Links to the webinars may be found at *www2.ed.gov/fund/grant/apply/osep/new-osep-grants.html.*

ADDRESSES: For the addresses for obtaining and submitting an application, please refer to our Common Instructions for Applicants to Department of Education Discretionary Grant Programs, published in the **Federal Register** on December 27, 2021 (86 FR 73264) and available at *www.federalregister.gov/d/2021-27979.* Please note that these Common Instructions supersede the version published on February 13, 2019, and, in part, describe the transition from the requirement to register in *SAM.gov* a Data Universal Numbering System (DUNS) number to the implementation of the Unique Entity Identifier (UEI). More information on the phase-out of DUNS numbers is available at *https://www2.ed.gov/about/offices/list/ofo/docs/unique-entity-identifier-transition-fact-sheet.pdf.*

FOR FURTHER INFORMATION CONTACT: Jennifer Coffey, U.S. Department of Education, 400 Maryland Avenue SW, Room 5134, Potomac Center Plaza, Washington, DC 20202–5076. Telephone: (202) 245–6673. Email: *Jennifer.Coffey@ed.gov.*

If you use a telecommunications device for the deaf (TDD) or a text telephone (TTY), call the Federal Relay Service (FRS), toll free, at 1–800–877–8339.

SUPPLEMENTARY INFORMATION:

Full Text of Announcement

I. Funding Opportunity Description

Purpose of Program: The purpose of the Technical Assistance and Dissemination to Improve Services and Results for Children with Disabilities program is to promote academic achievement and to improve results for children with disabilities by providing TA, supporting model demonstration projects, disseminating useful information, and implementing activities that are supported by scientifically based research.

Priority: This competition includes one absolute priority. In accordance with 34 CFR 75.105(b)(2)(v), this priority is from allowable activities specified in sections 663 and 681(d) of the Individuals with Disabilities Education Act (IDEA); 20 U.S.C. 1463 and 1481(d).

Absolute Priority: For FY 2022 and any subsequent year in which we make awards from the list of unfunded applications from this competition, this priority is an absolute priority. Under 34 CFR 75.105(c)(3), we consider only applications that meet this priority.

This priority is:

National Center to Support Implementation and Scaling Up of Evidence-Based Practices.

Background:

The University of Washington's Implementation Science Resource Hub defines ''implementation science'' as ''the scientific study of methods and strategies that facilitate the uptake of evidence-based practice and research into regular use by practitioners and policymakers.'' (The University of Washington, 2021). Implementation science provides the bridge between research and practice, supporting implementation of effective interventions, programs, and practices that can improve results for children with disabilities.

OSEP has supported the use of implementation science since 2007, with the inception of a TA Center created to assist State educational agencies (SEAs) in implementing and scaling up effective practices, such as evidence-based reading, math, and behavior interventions. As a result of this assistance, States are building infrastructure that supports the use and scaling up of effective practices that improve outcomes for children with disabilities (Ruedel et al., 2021). While many of these States report using the frameworks and resources developed and disseminated by OSEP's TA Center, they also report significant challenges to their efforts to create a lasting infrastructure that supports implementation (Ruedel et al., 2021). They struggle to provide support to their districts while keeping an agency-wide focus on building this infrastructure. When supported by a TA Center, partnerships among the SEA, local educational agencies (LEAs), institutions of higher education (IHEs), and regional TA providers can build a lasting statewide infrastructure.

The magnitude of change that must occur at the State, district, and school levels for large-scale use of implementation science requires a specialist who can support collaboration and systemic alignment (Kittelman et al., 2020). There is rarely a sufficient number of TA providers trained in implementation science (Sanetti & Collier-Meek, 2019) to support each district in a State. The work of the SEA is also made more challenging by staff turnover and overall lack of personnel capacity (Weiss & McGuinn, 2017).

A new corps of implementation specialists could be developed through the establishment of implementation science competencies supported via micro-credentials. These implementation specialists would then be available to assist the State, regional, and district levels of the education system. Additionally, by integrating implementation science into doctoral leadership programs, universities could support the development of implementation science competencies in their educator, leader, and scholar preparation programs.

This Center will advance the Secretary's priorities in the areas of supporting a diverse educator workforce and their professional growth to strengthen student learning and strengthening cross-agency coordination and community engagement to advance systemic change. The Center will

support States in implementing evidence-based practices that improve results for children with disabilities. The Center will also expand opportunities for educators to receive the implementation support they need.

Priority:

The purpose of this priority is to fund a cooperative agreement to establish and operate a National Technical Assistance Center to Support Implementation and Scaling Up of Evidence-Based Practices. The Center will support States' use of implementation science to create a statewide infrastructure that supports implementation of evidence-based [1] practices (EBPs). The Center must achieve, at a minimum, the following expected outcomes:

(a) Development of implementation science micro-credentials;

(b) A minimum of 25 individuals trained annually as implementation science specialists through the completion of the micro-credentials;

(c) Creation of a TA hub for OSEP-funded doctoral programs that results in at least five of these programs integrating implementation science into their program of study;

(d) A community of practice (CoP) for IHE faculty interested in learning about implementation science and how to integrate implementation science into their curricula;

(e) Integration of implementation science into the program of study of at least five OSEP-funded State leadership projects (ALN 84.325L);

(f) An infrastructure that facilitates scaling implementation supports, including developing the capacity of regional TA providers, in eight States; [2]

(g) A CoP for States interested in learning more about implementation science, but that are not yet ready for full implementation; and

(h) The integration of implementation science frameworks and related resources into the provision of TA by at least five OSEP-funded TA Centers.

In addition to these programmatic requirements, to be considered for funding under this priority, applicants must meet the application and administrative requirements in this priority, which are:

(a) Demonstrate, in the narrative section of the application under ''Significance,'' how the proposed project will—

(1) Address gaps in State infrastructure to support full implementation and scaling up of EBPs. To meet this requirement, the applicant must—

(i) Present applicable national, State, regional, and local data, and research addressing how SEAs, Regional Education Service Agencies (RESAs), IHEs, and TA providers are integrating implementation science into their services;

(ii) Demonstrate knowledge of current educational issues and policy initiatives relating to implementation science and scaling up EBPs; and

(iii) Present information about the current level of use of implementation science in the field of education; and

(2) Improve outcomes for children with disabilities by assisting with the development of statewide infrastructure that supports full implementation and scaling up of EBPs and indicate the likely magnitude or importance of the improvements.

(b) Demonstrate, in the narrative section of the application under ''Quality of project services,'' how the proposed project will—

(1) Ensure equal access and treatment for members of groups that have traditionally been underrepresented based on race, color, national origin, gender, age, or disability. To meet this requirement, the applicant must describe how it will—

(i) Identify the needs of the intended recipients for TA and information; and

(ii) Ensure that products and services meet the needs of the intended recipients of the grant;

(2) Achieve its goals, objectives, and intended outcomes. To meet this requirement, the applicant must provide—

(i) Measurable intended project outcomes; and

(ii) In Appendix A, the logic model [3] by which the proposed project will achieve its intended outcomes that depicts, at a minimum, the goals and how they will be measured, activities, outputs, and intended outcomes of the proposed project;

(3) Use a conceptual framework (and provide a copy in Appendix A) to develop project plans and activities, describing any underlying concepts, assumptions, expectations, beliefs, or theories, as well as the presumed relationships or linkages among these variables, and any empirical support for this framework;

Note: The following websites provide more information on logic models and conceptual frameworks: *https://osepideasthatwork.org/find-a-resource/cipp-logic-model-outline; https://osepideasthatwork.org/find-a-resource/logic-models-and-performance-measures;* and *www.osepideasthatwork.org/resources-grantees/program-areas/ta-ta/tad-project-logic-model-and-conceptual-framework.*

(4) Be based on current research and make use of EBPs. To meet this requirement, the applicant must describe—

(i) The current research on performance measurement related to implementation science and the EBPs that States are supporting with implementation science;

(ii) The current research about adult learning principles and implementation science that will inform the proposed TA; and

(iii) How the proposed project will incorporate current research and EBPs in the development and delivery of its products and services;

(5) Develop products and provide services that are of high quality and sufficient intensity and duration to achieve the intended outcomes of the proposed project. To address this requirement, the applicant must describe—

(i) How it proposes to identify or develop and expand the knowledge base;

(ii) Its proposed approach to universal, general TA,[4] which must identify the intended recipients, including the type and number of recipients, that will receive the products and services, a description of the products and services that the Center proposes to make available, and the expected impact of those products and services under this approach;

[1] For the purposes of this priority, ''evidence-based'' means, at a minimum, evidence that demonstrates a rationale (as defined in 34 CFR 77.1), where a key project component included in the project's logic model is informed by research or evaluation findings that suggest the project component is likely to improve relevant outcomes.

[2] Florida, New Jersey, and Virginia currently receive TA from the Center funded under the FY 2017 competition. The Center must continue to provide TA to these States, if the States elect. Note that each of the States that elects to continue receiving TA counts as one of the 8 States.

[3] Logic model (34 CFR 77.1) (also referred to as a theory of action) means a framework that identifies key project components of the proposed project (*i.e.,* the active ''ingredients'' that are hypothesized to be critical to achieving the relevant outcomes) and describes the theoretical and operational relationships among the key project components and relevant outcomes.

[4] ''Universal, general TA'' means TA and information provided to independent users through their own initiative, resulting in minimal interaction with TA center staff and including one-time, invited or offered conference presentations by TA center staff. This category of TA also includes information or products, such as newsletters, guidebooks, or research syntheses, downloaded from the TA center's website by independent users. Brief communications by TA center staff with recipients, either by telephone or email, are also considered universal, general TA.

(iii) Its proposed approach to targeted, specialized TA,[5] which must identify—

(A) The intended recipients, including the type and number of recipients, that will receive the products and services under this approach; and

(B) Its proposed approach to measure the readiness of potential TA recipients to work with the project, assessing, at a minimum, their current infrastructure, available resources, and ability to build capacity at the local level; and

(iv) Its proposed approach to intensive, sustained TA,[6] which must identify—

(A) The intended recipients, including the type and number of recipients, that will receive the products and services, a description of the products and services that the Center proposes to make available, and the expected impact of those products and services under this approach;

(B) Its proposed approach to measure the readiness of the SEAs to work with the project, including their commitment to the initiative, alignment of the initiative to their needs, current infrastructure, available resources, and ability of the SEAs to build capacity at the local level;

(C) Its proposed plan for assisting SEAs to build or enhance training systems that include professional development based on adult learning principles and coaching; and

(D) Its proposed plan for working with appropriate levels of the education system (*e.g.,* SEAs, regional TA providers, districts, schools, families) to ensure that there is communication between each level and that there are systems in place to support the use of EBPs;

(6) Develop products and implement services that maximize efficiency. To address this requirement, the applicant must describe—

(i) How the proposed project will use technology to achieve the intended project outcomes;

(ii) With whom the proposed project will collaborate and the intended outcomes of this collaboration; and

(iii) How the proposed project will use non-project resources to achieve the intended project outcomes; and

(7) Develop a dissemination plan that describes how the applicant will systematically distribute information, products, and services to varied intended audiences, using a variety of dissemination strategies, to promote awareness and use of the Center's products and services.

(c) In the narrative section of the application under ''Quality of the project evaluation,'' include an evaluation plan for the project as described in the following paragraphs. The evaluation plan must describe: Measures of progress in implementation, including the criteria for determining the extent to which the project's products and services have met the goals for reaching its target population; measures of intended outcomes or results of the project's activities in order to evaluate those activities; and how well the goals or objectives of the proposed project, as described in its logic model, have been met.

The applicant must provide an assurance that, in designing the evaluation plan, it will—

(1) Designate, with the approval of the OSEP project officer, a project liaison with sufficient dedicated time, experience in evaluation, and knowledge of the project to work in collaboration with the Center to Improve Program and Project Performance (CIPP),[7] the project director, and the OSEP project officer on the following tasks:

(i) Revise the logic model submitted in the application to provide for a more comprehensive measurement of implementation and outcomes and to reflect any changes or clarifications to the model discussed at the kick-off meeting;

(ii) Refine the evaluation design and instrumentation proposed in the application consistent with the revised logic model and using the most rigorous design suitable (*e.g.,* prepare evaluation questions about significant program processes and outcomes; develop quantitative or qualitative data collections that permit both the collection of progress data, including fidelity of implementation, as appropriate, and the assessment of project outcomes; and identify analytic strategies); and

(iii) Revise the evaluation plan submitted in the application such that it—

(A) Clearly specifies the evaluation questions, measures, and associated instruments or sources for data appropriate to answer these questions, suggests analytic strategies for those data, provides a timeline for conducting the evaluation, and includes staff assignments for completing the evaluation activities;

(B) Clearly delineates the data expected to be available by the end of the second project year for use during the project's evaluation (3+2 review) for continued funding described under the heading *Fourth and Fifth Years of the Project;* and

(C) Can be used to assist the project director and the OSEP project officer, with the assistance of CIPP, as needed, to specify the project performance measures to be addressed in the project's annual performance report;

(2) Dedicate sufficient staff time and other resources during the first six months of the project to collaborate with CIPP staff, including regular meetings (*e.g.,* weekly, biweekly, or monthly) with CIPP and the OSEP project officer, in order to accomplish the tasks described in paragraph (c)(1) of this section; and

(3) Dedicate sufficient funds in each budget year to cover the costs of carrying out the tasks described in paragraphs (c)(1) and (2) of this section and revising and implementing the evaluation plan. Please note in your budget narrative the funds dedicated for this activity.

(d) Demonstrate, in the narrative section of the application under ''Adequacy of resources and quality of project personnel,'' how—

(1) The proposed project will encourage applications for employment from persons who are members of groups that have traditionally been underrepresented based on race, color, national origin, gender, age, or disability, as appropriate;

(2) The proposed key project personnel, consultants, and subcontractors have the qualifications and experience to carry out the

[5] ''Targeted, specialized TA'' means TA services based on needs common to multiple recipients and not extensively individualized. A relationship is established between the TA recipient and one or more TA center staff. This category of TA includes one-time, labor-intensive events, such as facilitating strategic planning or hosting regional or national conferences. It can also include episodic, less labor-intensive events that extend over a period of time, such as facilitating a series of conference calls on single or multiple topics that are designed around the needs of the recipients. Facilitating communities of practice can also be considered targeted, specialized TA.

[6] ''Intensive, sustained TA'' means TA services often provided on-site and requiring a stable, ongoing relationship between the TA center staff and the TA recipient. ''TA services'' are defined as negotiated series of activities designed to reach a valued outcome. This category of TA should result in changes to policy, program, practice, or operations that support increased recipient capacity or improved outcomes at one or more systems levels.

[7] The major tasks of CIPP are to guide, coordinate, and oversee the design of formative evaluations for every large discretionary investment (*i.e.,* those awarded $500,000 or more per year and required to participate in the 3+2 process) in OSEP's Technical Assistance and Dissemination; Personnel Development; Parent Training and Information Centers; and Educational Technology, Media, and Materials programs. The efforts of CIPP are expected to enhance individual project evaluation plans by providing expert and unbiased TA in designing the evaluations with due consideration of the project's budget. CIPP does not function as a third-party evaluator.

proposed activities and achieve the project's intended outcomes;

(3) The applicant and any key partners have adequate resources to carry out the proposed activities; and

(4) The proposed costs are reasonable in relation to the anticipated results and benefits.

(e) Demonstrate, in the narrative section of the application under ''Quality of the management plan,'' how—

(1) The proposed management plan will ensure that the project's intended outcomes will be achieved on time and within budget. To address this requirement, the applicant must describe—

(i) Clearly defined responsibilities for key project personnel, consultants, and subcontractors, as applicable; and

(ii) Timelines and milestones for accomplishing the project tasks;

(2) Key project personnel and any consultants and subcontractors will be allocated and how these allocations are appropriate and adequate to achieve the project's intended outcomes;

(3) The proposed management plan will ensure that the products and services provided are of high quality, relevant, and useful to recipients; and

(4) The proposed project will benefit from a diversity of perspectives, including those of families, educators, TA providers, researchers, and policy makers, among others, in its development and operation.

(f) Address the following application requirements. The applicant must—

(1) Include, in Appendix A, personnel-loading charts and timelines, as applicable, to illustrate the management plan described in the narrative;

(2) Include, in the budget, attendance at the following:

(i) A one and one-half day kick-off meeting in Washington, DC, or virtually, after receipt of the award, and an annual planning meeting in Washington, DC, or virtually, with the OSEP project officer and other relevant staff during each subsequent year of the project period.

NOTE: Within 30 days of receipt of the award, a post-award teleconference must be held between the OSEP project officer and the grantee's project director or other authorized representative;

(ii) A two and one-half day project directors' conference in Washington, DC, or virtually, during each year of the project period;

(iii) One annual two-day trip, or virtually, to attend Department briefings, Department-sponsored conferences, and other meetings, as requested by OSEP; and

(iv) A one-day intensive 3+2 review meeting in Washington, DC, or virtually, during the last half of the second year of the project period;

(3) Include, in the budget, a line item for an annual set-aside of 5 percent of the grant amount to support emerging needs that are consistent with the proposed project's intended outcomes, as those needs are identified in consultation with, and approved by, the OSEP project officer. With approval from the OSEP project officer, the project must reallocate any remaining funds from this annual set-aside no later than the end of the third quarter of each budget period;

(4) Maintain a high-quality website, with an easy-to-navigate design, that meets government or industry-recognized standards for accessibility;

(5) Ensure that annual project progress toward meeting project goals is posted on the project website; and

(6) Include, in Appendix A, an assurance to assist OSEP with the transfer of pertinent resources and products and to maintain the continuity of services to States during the transition to this new award period and at the end of this award period, as appropriate.

Fourth and Fifth Years of the Project:

In deciding whether to continue funding the project for the fourth and fifth years, the Secretary will consider the requirements of 34 CFR 75.253(a), including—

(a) The recommendations of a 3+2 review team consisting of experts who have experience and knowledge in implementation science and EBPs. This review will be conducted during a one-day intensive meeting that will be held during the last half of the second year of the project period;

(b) The timeliness with which, and how well, the requirements of the negotiated cooperative agreement have been or are being met by the project; and

(c) The quality, relevance, and usefulness of the project's products and services and the extent to which the project's products and services are aligned with the project's objectives and likely to result in the project achieving its intended outcomes.

Under 34 CFR 75.253, the Secretary may reduce continuation awards or discontinue awards in any year of the project period for excessive carryover balances or a failure to make substantial progress. The Department intends to closely monitor unobligated balances and substantial progress under this program and may reduce or discontinue funding accordingly.

References

Kittelman, A., Horner, R. H., & Rowe, D. A. (2020). Selecting Evidence-Based Practices to Improve Learning and Behavior. *Teaching Exceptional Children,* 53(2): 96–98. *https://doi.org/10.1177/0040059920964684.*

Ruedel, K., Thompson, A. L., Kuchle, L., & D'Agord, C. (2021). *Highlights from five years of reviewing State systemic improvement plans.* Unpublished Report.

Sanetti, L., & Collier-Meek, M. (2019). Increasing implementation science literacy to address the research-to-practice gap in school psychology. *Journal of School Psychology,* 76, 33–47. *https://doi.org/10.1016/j.jsp.2019.07.008.*

The University of Washington. (2021). *What is implementation science*? Implementation Science Resource Hub. *https://impsciuw.org/implementation-science/learn/implementation-science-overview/.*

Weiss, J., & McGuinn, P. (2017). *The evolving role of the State education agency in the era of ESSA and Trump: Past, present, and uncertain future* (CPRE Working Paper No. 14). Consortium for Policy Research in Education. *http://repository.upenn.edu/cpre_workingpapers/14/.*

Waiver of Proposed Rulemaking: Under the Administrative Procedure Act (APA) (5 U.S.C. 553) the Department generally offers interested parties the opportunity to comment on proposed priorities. Section 681(d) of IDEA, however, makes the public comment requirements of the APA inapplicable to the priority in this notice.

Program Authority: 20 U.S.C. 1463 and 1481.

Note: Projects will be awarded and must be operated in a manner consistent with the nondiscrimination requirements contained in Federal civil rights laws.

Applicable Regulations: (a) The Education Department General Administrative Regulations in 34 CFR parts 75, 77, 79, 81, 82, 84, 86, 97, 98, and 99. (b) The Office of Management and Budget Guidelines to Agencies on Governmentwide Debarment and Suspension (Nonprocurement) in 2 CFR part 180, as adopted and amended as regulations of the Department in 2 CFR part 3485. (c) The Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards in 2 CFR part 200, as adopted and amended as regulations of the Department in 2 CFR part 3474.

Note: The regulations in 34 CFR part 79 apply to all applicants except federally recognized Indian Tribes.

Note: The regulations in 34 CFR part 86 apply to IHEs only.

II. Award Information

Type of Award: Cooperative agreement.

Estimated Available Funds: The Administration has requested

$49,345,000 for the Technical Assistance and Dissemination to Improve Services and Results for Children with Disabilities program for FY 2022, of which we intend to use an estimated $1,200,000 for this competition. The actual level of funding, if any, depends on final congressional action. However, we are inviting applications to allow enough time to complete the grant process if Congress appropriates funds for this program.

Contingent upon the availability of funds and the quality of applications, we may make additional awards in FY 2023 from the list of unfunded applications from this competition.

Maximum Award: We will not make an award exceeding $1,200,000 for a single budget period of 12 months.

Estimated Number of Awards: 1.

Note: The Department is not bound by any estimates in this notice.

Project Period: Up to 60 months.

III. Eligibility Information

1. *Eligible Applicants:* SEAs; LEAs, including public charter schools that are considered LEAs under State law; IHEs; other public agencies; private nonprofit organizations; freely associated States and outlying areas; Indian Tribes or Tribal organizations; and for-profit organizations.

2. a. *Cost Sharing or Matching:* This competition does not require cost sharing or matching.

b. *Indirect Cost Rate Information:* This program uses an unrestricted indirect cost rate. For more information regarding indirect costs, or to obtain a negotiated indirect cost rate, please see *www2.ed.gov/about/offices/list/ocfo/intro.html.*

c. *Administrative Cost Limitation:* This program does not include any program-specific limitation on administrative expenses. All administrative expenses must be reasonable and necessary and conform to the Cost Principles described in 2 CFR part 200 subpart E of the Uniform Guidance.

3. *Subgrantees:* A grantee under this competition may not award subgrants to entities to directly carry out project activities described in its application. Under 34 CFR 75.708(e), a grantee may contract for supplies, equipment, and other services in accordance with 2 CFR part 200.

4. *Other General Requirements:*

a. Recipients of funding under this competition must make positive efforts to employ and advance in employment qualified individuals with disabilities (see section 606 of IDEA).

b. Applicants for, and recipients of, funding must, with respect to the aspects of their proposed project relating to the absolute priority, involve individuals with disabilities, or parents of individuals with disabilities ages birth through 26, in planning, implementing, and evaluating the project (see section 682(a)(1)(A) of IDEA).

IV. Application and Submission Information

1. *Application Submission Instructions:* Applicants are required to follow the Common Instructions for Applicants to Department of Education Discretionary Grant Programs, published in the **Federal Register** on December 27, 2021 (86 FR 73264) and available at *www.federalregister.gov/d/2021-27979,* which contain requirements and information on how to submit an application. Please note that these Common Instructions supersede the version published on February 13, 2019, and, in part, describe the transition from the requirement to register in *SAM.gov* a DUNS number to the implementation of the UEI. More information on the phase-out of DUNS numbers is available at *https://www2.ed.gov/about/offices/list/ofo/docs/unique-entity-identifier-transition-fact-sheet.pdf.*

2. *Intergovernmental Review:* This competition is subject to Executive Order 12372 and the regulations in 34 CFR part 79. Information about Intergovernmental Review of Federal Programs under Executive Order 12372 is in the application package for this competition.

3. *Funding Restrictions:* We reference regulations outlining funding restrictions in the *Applicable Regulations* section of this notice.

4. *Recommended Page Limit:* The application narrative is where you, the applicant, address the selection criteria that reviewers use to evaluate your application. We recommend that you (1) limit the application narrative to no more than 70 pages and (2) use the following standards:

- A ''page'' is 8.5″ x 11″, on one side only, with 1″ margins at the top, bottom, and both sides.
- Double-space (no more than three lines per vertical inch) all text in the application narrative, including titles, headings, footnotes, quotations, reference citations, and captions, as well as all text in charts, tables, figures, graphs, and screen shots.
- Use a font that is 12 point or larger.
- Use one of the following fonts: Times New Roman, Courier, Courier New, or Arial.

The recommended page limit does not apply to the cover sheet; the budget section, including the narrative budget justification; the assurances and certifications; or the abstract (follow the guidance provided in the application package for completing the abstract), the table of contents, the list of priority requirements, the resumes, the reference list, the letters of support, or the appendices. However, the recommended page limit does apply to all of the application narrative, including all text in charts, tables, figures, graphs, and screen shots.

V. Application Review Information

1. *Selection Criteria:* The selection criteria for this competition are from 34 CFR 75.210 and are listed below:

(a) *Significance (10 points).*

(1) The Secretary considers the significance of the proposed project.

(2) In determining the significance of the proposed project, the Secretary considers the following factors:

(i) The extent to which specific gaps or weaknesses in services, infrastructure, or opportunities have been identified and will be addressed by the proposed project, including the nature and magnitude of those gaps or weaknesses.

(ii) The importance or magnitude of the results or outcomes likely to be attained by the proposed project.

(b) *Quality of project services (35 points).*

(1) The Secretary considers the quality of the services to be provided by the proposed project.

(2) In determining the quality of the services to be provided by the proposed project, the Secretary considers the quality and sufficiency of strategies for ensuring equal access and treatment for eligible project participants who are members of groups that have traditionally been underrepresented based on race, color, national origin, gender, age, or disability.

(3) In addition, the Secretary considers the following factors:

(i) The extent to which the goals, objectives, and outcomes to be achieved by the proposed project are clearly specified and measurable.

(ii) The extent to which the services to be provided by the proposed project reflect up-to-date knowledge from research and effective practice.

(iii) The extent to which the training or professional development services to be provided by the proposed project are of sufficient quality, intensity, and duration to lead to improvements in practice among the recipients of those services.

(iv) The extent to which the TA services to be provided by the proposed project involve the use of efficient strategies, including the use of technology, as appropriate, and the leveraging of non-project resources.

(c) *Quality of the project evaluation (20 points).*

(1) The Secretary considers the quality of the evaluation to be conducted of the proposed project.

(2) In determining the quality of the evaluation, the Secretary considers the following factors:

(i) The extent to which the methods of evaluation are thorough, feasible, and appropriate to the goals, objectives, and outcomes of the proposed project.

(ii) The extent to which the methods of evaluation provide for examining the effectiveness of project implementation strategies.

(d) *Adequacy of resources and quality of project personnel (15 points).*

(1) The Secretary considers the adequacy of resources for the proposed project and the quality of the personnel who will carry out the proposed project.

(2) In determining the quality of project personnel, the Secretary considers the extent to which the applicant encourages applications for employment from persons who are members of groups that have traditionally been underrepresented based on race, color, national origin, gender, age, or disability.

(3) In addition, the Secretary considers the following factors:

(i) The qualifications, including relevant training and experience, of key project personnel.

(ii) The relevance and demonstrated commitment of each partner in the proposed project to the implementation and success of the project.

(iii) The extent to which the budget is adequate to support the proposed project.

(e) *Quality of the management plan (20 points).*

(1) The Secretary considers the quality of the management plan for the proposed project.

(2) In determining the quality of the management plan for the proposed project, the Secretary considers the following factors:

(i) The adequacy of the management plan to achieve the objectives of the proposed project on time and within budget, including clearly defined responsibilities, timelines, and milestones for accomplishing project tasks.

(ii) The extent to which the time commitments of the project director and principal investigator and other key project personnel are appropriate and adequate to meet the objectives of the proposed project.

(iii) How the applicant will ensure that a diversity of perspectives are brought to bear in the operation of the proposed project, including those of parents, teachers, the business community, a variety of disciplinary and professional fields, recipients or beneficiaries of services, or others, as appropriate.

2. *Review and Selection Process:* We remind potential applicants that in reviewing applications in any discretionary grant competition, the Secretary may consider, under 34 CFR 75.217(d)(3), the past performance of the applicant in carrying out a previous award, such as the applicant's use of funds, achievement of project objectives, and compliance with grant conditions. The Secretary may also consider whether the applicant failed to submit a timely performance report or submitted a report of unacceptable quality.

In addition, in making a competitive grant award, the Secretary requires various assurances, including those applicable to Federal civil rights laws that prohibit discrimination in programs or activities receiving Federal financial assistance from the Department (34 CFR 100.4, 104.5, 106.4, 108.8, and 110.23).

3. *Additional Review and Selection Process Factors:* In the past, the Department has had difficulty finding peer reviewers for certain competitions because so many individuals who are eligible to serve as peer reviewers have conflicts of interest. The standing panel requirements under section 682(b) of IDEA also have placed additional constraints on the availability of reviewers. Therefore, the Department has determined that for some discretionary grant competitions, applications may be separated into two or more groups and ranked and selected for funding within specific groups. This procedure will make it easier for the Department to find peer reviewers by ensuring that greater numbers of individuals who are eligible to serve as reviewers for any particular group of applicants will not have conflicts of interest. It also will increase the quality, independence, and fairness of the review process, while permitting panel members to review applications under discretionary grant competitions for which they also have submitted applications.

4. *Risk Assessment and Specific Conditions:* Consistent with 2 CFR 200.206, before awarding grants under this competition the Department conducts a review of the risks posed by applicants. Under 2 CFR 200.208, the Secretary may impose specific conditions, and under 2 CFR 3474.10, in appropriate circumstances, high-risk conditions on a grant if the applicant or grantee is not financially stable; has a history of unsatisfactory performance; has a financial or other management system that does not meet the standards in 2 CFR part 200, subpart D; has not fulfilled the conditions of a prior grant; or is otherwise not responsible.

5. *Integrity and Performance System:* If you are selected under this competition to receive an award that over the course of the project period may exceed the simplified acquisition threshold (currently $250,000), under 2 CFR 200.206(a)(2) we must make a judgment about your integrity, business ethics, and record of performance under Federal awards—that is, the risk posed by you as an applicant—before we make an award. In doing so, we must consider any information about you that is in the integrity and performance system (currently referred to as the Federal Awardee Performance and Integrity Information System (FAPIIS)), accessible through the System for Award Management. You may review and comment on any information about yourself that a Federal agency previously entered and that is currently in FAPIIS.

Please note that, if the total value of your currently active grants, cooperative agreements, and procurement contracts from the Federal Government exceeds $10,000,000, the reporting requirements in 2 CFR part 200, Appendix XII, require you to report certain integrity information to FAPIIS semiannually. Please review the requirements in 2 CFR part 200, Appendix XII, if this grant plus all the other Federal funds you receive exceed $10,000,000.

6. *In General:* In accordance with the Office of Management and Budget's guidance located at 2 CFR part 200, all applicable Federal laws, and relevant Executive guidance, the Department will review and consider applications for funding pursuant to this notice inviting applications in accordance with—

(a) Selecting recipients most likely to be successful in delivering results based on the program objectives through an objective process of evaluating Federal award applications (2 CFR 200.205);

(b) Prohibiting the purchase of certain telecommunication and video surveillance services or equipment in alignment with section 889 of the National Defense Authorization Act for Fiscal Year 2019 (Pub. L. 115–232) (2 CFR 200.216);

(c) Providing a preference, to the extent permitted by law, to maximize

use of goods, products, and materials produced in the United States (2 CFR 200.322); and

(d) Terminating agreements in whole or in part to the greatest extent authorized by law if an award no longer effectuates the program goals or agency priorities (2 CFR 200.340).

VI. Award Administration Information

1. *Award Notices:* If your application is successful, we notify your U.S. Representative and U.S. Senators and send you a Grant Award Notification (GAN); or we may send you an email containing a link to access an electronic version of your GAN. We may notify you informally, also.

If your application is not evaluated or not selected for funding, we notify you.

2. *Administrative and National Policy Requirements:* We identify administrative and national policy requirements in the application package and reference these and other requirements in the *Applicable Regulations* section of this notice.

We reference the regulations outlining the terms and conditions of an award in the *Applicable Regulations* section of this notice and include these and other specific conditions in the GAN. The GAN also incorporates your approved application as part of your binding commitments under the grant.

3. *Open Licensing Requirements:* Unless an exception applies, if you are awarded a grant under this competition, you will be required to openly license to the public grant deliverables created in whole, or in part, with Department grant funds. When the deliverable consists of modifications to pre-existing works, the license extends only to those modifications that can be separately identified and only to the extent that open licensing is permitted under the terms of any licenses or other legal restrictions on the use of pre-existing works. Additionally, a grantee that is awarded competitive grant funds must have a plan to disseminate these public grant deliverables. This dissemination plan can be developed and submitted after your application has been reviewed and selected for funding. For additional information on the open licensing requirements please refer to 2 CFR 3474.20.

4. *Reporting:* (a) If you apply for a grant under this competition, you must ensure that you have in place the necessary processes and systems to comply with the reporting requirements in 2 CFR part 170 should you receive funding under the competition. This does not apply if you have an exception under 2 CFR 170.110(b).

(b) At the end of your project period, you must submit a final performance report, including financial information, as directed by the Secretary. If you receive a multiyear award, you must submit an annual performance report that provides the most current performance and financial expenditure information as directed by the Secretary under 34 CFR 75.118. The Secretary may also require more frequent performance reports under 34 CFR 75.720(c). For specific requirements on reporting, please go to *www.ed.gov/fund/grant/apply/appforms/appforms.html.*

5. *Performance Measures:* For the purposes of Department reporting under 34 CFR 75.110, we have established a set of performance measures, including long-term measures, that are designed to yield information on various aspects of the effectiveness and quality of the Technical Assistance and Dissemination to Improve Services and Results for Children With Disabilities program. These measures are:

- *Program Performance Measure 1:* The percentage of technical assistance and dissemination products and services deemed to be of high quality by an independent review panel of experts qualified to review the substantive content of the products and services.
- *Program Performance Measure 2:* The percentage of special education technical assistance and dissemination products and services deemed by an independent review panel of qualified experts to be of high relevance to educational and early intervention policy or practice.
- *Program Performance Measure 3:* The percentage of all special education technical assistance and dissemination products and services deemed by an independent review panel of qualified experts to be useful in improving educational or early intervention policy or practice.
- *Program Performance Measure 4:* The cost efficiency of the Technical Assistance and Dissemination to Improve Services and Results for Children with Disabilities program includes the percentage of milestones achieved in the current annual performance report period and the percentage of funds spent during the current fiscal year.
- *Long-term Program Performance Measure:* The percentage of States receiving special education technical assistance and dissemination services regarding scientifically or evidence-based practices for infants, toddlers, children, and youth with disabilities that successfully promote the implementation of those practices in school districts and service agencies.

The measures apply to projects funded under this competition, and grantees are required to submit data on these measures as directed by OSEP.

Grantees will be required to report information on their project's performance in annual and final performance reports to the Department (34 CFR 75.590).

The Department will also closely monitor the extent to which the products and services provided by the Center meet needs identified by stakeholders and may require the Center to report on such alignment in their annual and final performance reports.

6. *Continuation Awards:* In making a continuation award under 34 CFR 75.253, the Secretary considers, among other things: Whether a grantee has made substantial progress in achieving the goals and objectives of the project; whether the grantee has expended funds in a manner that is consistent with its approved application and budget; and, if the Secretary has established performance measurement requirements, whether the grantee has made substantial progress in achieving the performance targets in the grantee's approved application.

In making a continuation award, the Secretary also considers whether the grantee is operating in compliance with the assurances in its approved application, including those applicable to Federal civil rights laws that prohibit discrimination in programs or activities receiving Federal financial assistance from the Department (34 CFR 100.4, 104.5, 106.4, 108.8, and 110.23).

VII. Other Information

Accessible Format: On request to the program contact person listed under **FOR FURTHER INFORMATION CONTACT**, individuals with disabilities can obtain this document and a copy of the application package in an accessible format. The Department will provide the requestor with an accessible format that may include Rich Text Format (RTF) or text format (txt), a thumb drive, an MP3 file, braille, large print, audiotape, or compact disc, or other accessible format.

Electronic Access to This Document: The official version of this document is the document published in the **Federal Register**. You may access the official edition of the **Federal Register** and the Code of Federal Regulations at *www.govinfo.gov.* At this site you can view this document, as well as all other documents of this Department published in the **Federal Register**, in text or Portable Document Format (PDF). To use PDF you must have

Adobe Acrobat Reader, which is available free at the site.

You may also access documents of the Department published in the **Federal Register** by using the article search feature at *www.federalregister.gov.* Specifically, through the advanced search feature at this site, you can limit your search to documents published by the Department.

Katherine Neas,

Deputy Assistant Secretary, Delegated the authority to perform the functions and duties of the Assistant Secretary for the Office of Special Education and Rehabilitative Services.

[FR Doc. 2022–03680 Filed 2–18–22; 8:45 am]

BILLING CODE 4000–01–P

DEPARTMENT OF EDUCATION

Applications for New Awards; Educational Technology, Media, and Materials for Individuals With Disabilities Program—Stepping-Up Technology Implementation

AGENCY: Office of Special Education and Rehabilitative Services, Department of Education.

ACTION: Notice.

SUMMARY: The Department of Education (Department) is issuing a notice inviting applications for new awards for fiscal year (FY) 2022 for Stepping-up Technology Implementation, Assistance Listing Number 84.327S. This notice relates to the approved information collection under OMB control number 1820–0028.

DATES:

Applications Available: February 22, 2022.

Deadline for Transmittal of Applications: April 25, 2022.

Deadline for Intergovernmental Review: June 22, 2022.

Pre-Application Webinar Information: No later than February 28, 2022, the Office of Special Education Programs (OSEP) will post details on pre-recorded informational webinars designed to provide technical assistance (TA) to interested applicants. Links to the webinars may be found at *www2.ed.gov/fund/grant/apply/osep/new-osep-grants.html.*

ADDRESSES: For the addresses for obtaining and submitting an application, please refer to our Common Instructions for Applicants to Department of Education Discretionary Grant Programs, published in the **Federal Register** on December 27, 2021 (86 FR 73264) and available at *www.federalregister.gov/d/2021–27979.* Please note that these Common Instructions supersede the version published on February 13, 2019, and, in part, describe the transition from the requirement to register in *SAM.gov* a Data Universal Numbering System (DUNS) number to the implementation of the Unique Entity Identifier (UEI). More information on the phase-out of DUNS numbers is available at *https://www2.ed.gov/about/offices/list/ofo/docs/unique-entity-identifier-transition-fact-sheet.pdf.*

FOR FURTHER INFORMATION CONTACT: Richelle Davis, U.S. Department of Education, 400 Maryland Avenue SW, Room 5025, Potomac Center Plaza, Washington, DC 20202–5076. Telephone: (202) 245–7401. Email: *Richelle.Davis@ed.gov.*

If you use a telecommunications device for the deaf (TDD) or a text telephone (TTY), call the Federal Relay Service (FRS), toll free, at 1–800–877–8339.

SUPPLEMENTARY INFORMATION:

Full Text of Announcement

I. Funding Opportunity Description

Purpose of Program: The purposes of the Educational Technology, Media, and Materials for Individuals with Disabilities Program are to improve results for children with disabilities by: (1) Promoting the development, demonstration, and use of technology; (2) supporting educational activities designed to be of educational value in the classroom for children with disabilities; (3) providing support for captioning and video description that is appropriate for use in the classroom; and (4) providing accessible educational materials to children with disabilities in a timely manner.[1]

Priorities: This competition includes one absolute priority and one competitive preference priority. In accordance with 34 CFR 75.105(b)(2)(v), the absolute priority is from allowable activities specified in sections 674(c)(1)(D) and 681(d) of the Individuals with Disabilities Education Act (IDEA); 20 U.S.C. 1474(c)(1)(D) and 1481(d). The competitive preference priority is from the Secretary's Administrative Priorities for Discretionary Grant Programs published in the **Federal Register** on March 9, 2020 (85 FR 13640) (Administrative Priorities).

Absolute Priority: For FY 2022 and any subsequent year in which we make awards from the list of unfunded applications from this competition, this priority is an absolute priority. Under 34 CFR 75.105(c)(3), we consider only applications that meet this priority.

This priority is:

Supporting Early Childhood and K–12 Educators of English Learners (ELs) with Disabilities and ELs at Risk to Deliver Literacy Instruction Based on the Science of Reading.

Background:

Since 2010, the number of ELs in American public schools has increased by five million students (National Center on Education Statistics, 2020). Data has consistently shown poorer academic outcomes for ELs compared to their non-EL peers, particularly in reading (Mancilla-Martinez, 2020). These poor reading outcomes are even more apparent for ELs with disabilities. For example, a greater proportion of ELs with disabilities (4th grade: 89 percent; 8th grade: 89 percent) scored below the basic level on the 2019 National Assessment of Educational Progress (NAEP) in reading, compared to all students with disabilities who scored below the basic level (4th grade: 67 percent; 8th grade: 60 percent) or ELs without disabilities who scored below the basic level (4th grade: 61 percent; 8th grade: 68 percent) (U.S. Department of Education, 2021). This reading achievement gap for ELs has remained static for over a decade. Given EL reading outcomes, increasing equity in educational opportunity and providing supports to improve literacy skills is a pressing educational necessity (Mancilla-Martinez, 2020).

Many educators report using some type of digital learning resource or technologies to provide instruction on a daily or weekly basis to ELs (U.S. Department of Education, 2019). Improving the capacity of educators to use the most appropriate and effective technologies in their delivery of literacy instruction that meet their students' needs is important for improving literacy outcomes. Technology that provides a range of support features (*e.g.,* visual, auditory), in multiple languages, is also viewed by educators as critical for supporting ELs' learning of content and building language and literacy skills. Educators are interested in how technologies can be used to individualize and adapt literacy instruction based on the student's

[1] Applicants should note that other laws, including the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 *et seq.*; 28 CFR part 35) and section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794; 34 CFR part 104), may require that State educational agencies (SEAs) and local educational agencies (LEAs) provide captioning, video description, and other accessible educational materials to students with disabilities when these materials are necessary to provide equally integrated and equally effective access to the benefits of the educational program or activity, or as part of a ''free appropriate public education'' as defined in 34 CFR 104.33.

individual needs while considering a student's level of English language proficiency.

Technology alone cannot be effective without the necessary professional learning and coaching to support educators on how to use the technology appropriately and effectively. Professional learning should focus on (1) how technology can improve literacy instruction; (2) how to effectively use the technology; (3) supporting meaningful collaborative learning opportunities with other educators and students; (4) aligning the technology enhanced instruction with existing curricula, State standards, and school initiatives; (5) promoting student motivation and engagement in language learning; and (6) fostering parent-teacher partnerships, including understanding the vital role of EL's families, becoming informed and appreciative of the various language and literacy practices, and building relationships between families and schools by changing instructional practices and outreach.

Professional learning should emphasize the vital role that families play in building early literacy skills of ELs, the value of the relationships and interactions of the home and community, and strategies on how to draw on the unique personal and cultural perspectives that ELs bring to the classroom (Grant et al., 2017).

Priority:

The purpose of this priority is to fund three cooperative agreements to establish and operate projects that achieve, at a minimum, the following expected outcomes:

(a) Proven strategies to effectively implement and integrate an existing accessible technology-based tool or approach, based on at least promising evidence,[2] to deliver and improve reading instruction for ELs with, and at risk for, disabilities;

(b) Increased educators'[3] use and knowledge of technology to deliver effective reading instruction for ELs with, or at risk for, disabilities through professional learning and coaching;

(c) Increased educator collaboration and professional learning opportunities to use technology to improve reading outcomes of ELs with, and at risk for, disabilities and to engage families to support their child's learning in the classroom and at home; and

(d) Improved engagement in reading instruction and self-regulated learning opportunities leading to improved reading achievement for ELs with, and at risk for, disabilities.

To be considered for funding under this priority, in the application, applicants must describe how they will—

(a) Build partnerships with early childhood programs or local educational agencies (LEAs), at least one of which is in a rural site,[4] to support educators in the understanding, use, and delivery of a technology-based tool or approach[5] to deliver reading instruction for ELs with, and at risk for, disabilities in PK–12 instructional settings, including classrooms and remote learning environments;

(b) Increase the capacity of educators and families to effectively use and deliver a technology-based tool or approach that supports PK–12 instructional settings, including classrooms and remote learning environments for instruction and professional growth;

(c) Develop an implementation package of accessible products and resources that will help educators and families to effectively use a technology-based tool or approach; and

(d) Evaluate whether the technology-based tool or approach meets the project goals and targeted outcomes.

In addition to these programmatic requirements, to be considered for funding under this priority, applicants must meet the application and administrative requirements in this priority, which are:

(a) Demonstrate, in the narrative section of the application under ''Significance,'' how the proposed project will address the need for a technology-based tool or approach and identify specific gaps and challenges, infrastructure, or opportunities to support educators' development. To meet this requirement the applicant must—

(1) Identify a fully developed technology-based tool or approach that is based on at least promising evidence;

(2) Identify how the technology-based tool or approach will improve educators' pedagogy and their capacity to deliver reading instruction or services for ELs with, and at risk for, disabilities in PK–12 instructional settings, including classrooms and remote learning environments;

(3) Present applicable national, State, regional, or local data demonstrating the need for the identified technology-based tool or approach to support ELs with, and at risk for, disabilities in PK–12 instructional settings, including classrooms and remote learning environments;

(4) Identify current policies, procedures, and practices used by educators that effectively incorporate technology-based tools or approaches to support reading outcomes for ELs with, and at risk for, disabilities;

(5) Identify systemic barriers, gaps, or challenges, including challenges to using the identified technology-based tool or approach; and

(6) Describe the potential impact of the identified technology-based tool or approach on educators, families, and children with disabilities.

(b) Demonstrate, in the narrative section of the application under ''Quality of project services,'' how the proposed project will—

(1) Ensure equal access and treatment for members of groups that have traditionally been underrepresented based on race, color, national origin, gender, age, or disability. To meet this requirement, the applicant must describe how it will—

(i) Identify the needs of the intended recipients for ongoing professional learning and coaching supports; and

(ii) Ensure that products and resources meet the needs of the intended recipients of the grant;

(2) Achieve its goals, objectives, and intended outcomes. To meet this

[2] Promising evidence means that there is evidence of the effectiveness of a key project component in improving a relevant outcome, based on a relevant finding from one of the following: (a) A practice guide prepared by the What Works Clearinghouse (WWC) reporting a ''strong evidence base'' or ''moderate evidence base'' for the corresponding practice recommendation; (b) an intervention report prepared by the WWC reporting a ''positive effect'' or ''potentially positive effect'' on a relevant outcome with no reporting of a ''negative effect'' or ''potentially negative effect'' on a relevant outcome; or (c) a single study assessed by the Department, as appropriate, that is an experimental study, a quasi-experimental design study, or a well-designed and well-implemented correlational study with statistical controls for selection bias (*e.g.,* a study using regression methods to account for differences between a treatment group and a comparison group); and includes at least one statistically significant and positive (*i.e.,* favorable) effect on a relevant outcome. See 34 CFR 77.1 for definitions of ''promising evidence,'' ''experimental study,'' ''moderate evidence,'' ''quasi-experimental design study,'' ''relevant outcome,'' and ''strong evidence.''

[3] For the purpose of this priority, ''educators'' include teachers, early childhood providers, administrators, paraprofessionals, and speech-language pathologists.

[4] ''Rural site'' is based on the National Center for Education Statistics (NCES) revised definitions of school locale types that can be found at *https://nces.ed.gov/surveys/ruraled/definitions.asp.* Rural can be considered as ''fringe, less than or equal to 5 miles from an urbanized area, as well as rural territory that is less than or equal to 2.5 miles from an urban cluster''; ''distant, more than 5 miles but less than or equal to 25 miles from an urbanized area, as well as rural territory that is more than 2.5 miles but less than or equal to 10 miles from an urban cluster''; or ''remote, more than 25 miles from an urbanized area and is also more than 10 miles from an urban cluster.''

[5] ''Technology-based tool or approach'' refers to the technology the applicant is proposing that is supported, at a minimum, by ''promising evidence'' with the population intended.

requirement, the applicant must provide measurable intended project outcomes;

(3) Be based on current research. To meet this requirement, the applicant must—

(i) Describe how the proposed project will align with current research, policies, and practices related to the benefits, services, or opportunities that are available using the technology-based tool or approach;

(ii) Describe how the proposed project will incorporate current and sound research and practices to guide the development and delivery of its products and resources, including accessibility and usability; and

(iii) Document that the technology tool used by the project is fully developed, has been tested and shown to have promising evidence, and addresses, at a minimum, the following principles of universal design for learning (UDL):

(A) Multiple means of presentation so that information can be delivered in more than one way (*e.g.,* specialized software and websites, screen readers that include features such as text-to-speech, changeable color contrast, alterable text size, or selection of different reading levels);

(B) Multiple means of expression that allow knowledge to be exhibited through options such as writing, online concept mapping, or speech-to-text programs, where appropriate; and

(C) Multiple means of engagement to stimulate interest in and motivation for learning (*e.g.,* options among several different learning activities or content for a particular competency or skill and providing opportunities for increased collaboration consistent with UDL principles); and

(4) Develop new products and resources that are of high quality and sufficient intensity and duration to achieve the intended outcomes of the proposed project. To address this requirement, the applicant must—

(i) Provide a plan for recruiting and selecting a wide range of settings where ELs with, and at risk for, disabilities are served, which must include the following:

(A) Three development sites.[6] Development sites are the sites in which iterative development of the products and resources intended to support the implementation of the technology-based tool or approach will occur. The project must start implementing the technology tool with one development site in year one of the project period and two additional development sites in year two.

(B) Four pilot sites. Pilot sites are the sites in which try-out, formative evaluation, and refinement of the products and resources will occur. The project must work with the four pilot sites during years three and four of the project period.

(C) Ten dissemination sites. Dissemination/scale-up sites will be selected if the project is extended for a fifth year. Dissemination/scale-up sites will be used to (1) refine the products for use by educators and students, and (2) evaluate the performance of the technology tool on educators' pedagogy and students' reading outcomes. Dissemination/scale-up sites will receive less TA from the project than development and pilot sites. Also, dissemination/scale-up sites will extend the benefits of the technology tool to additional students. To be selected as a dissemination/scale-up site, eligible sites must commit to working with the project to implement the technology tool.

Note: The following website provides more information about implementation research: *https://nirn.fpg.unc.edu/national-implementation-research-network.*

(D) A site may not serve in more than one category (*i.e.,* development, pilot, dissemination/scale-up).

(E) A minimum of two of the seven development and pilot sites must include rural sites. A minimum of four of the 10 dissemination/scale-up sites must include rural sites.

(ii) Provide information on the development and pilot sites, including student demographics and other pertinent data (*e.g.,* whether the settings are schools identified for comprehensive or targeted support and improvement in accordance with section 1111(c)(4)(C)(iii), (c)(4)(D), or (d)(2)(C)–(D) of the Elementary and Secondary Education Act of 1965, as amended);

(iii) Provide a plan for dissemination, which must address how the project will systematically distribute information, products, and services to varied intended audiences, using a variety of dissemination strategies, to promote awareness and use of the project's products and resources that goes beyond conference presentations and research articles;

(iv) Provide its plan for how the project will sustain project activities that go beyond conference presentations and research articles after funding ends; and

(v) Provide assurances that the final products disseminated to help sites effectively implement the technology-based tool or approach will be both open educational resources (OER) and licensed through an open access licensing authority.

(c) In the narrative section of the application under ''Quality of the project evaluation,'' include an evaluation plan for the project as described in the following paragraphs. The evaluation plan must describe measures of progress in implementation, including the criteria for determining the extent to which the project's products and resources have met the goals for reaching the project's target population; measures of intended outcomes or results of the project's activities to evaluate those activities; and how the project will assess whether the goals or objectives of the proposed project, as described in its logic model,[7] have been met.

The applicant must provide an assurance that, in designing the evaluation plan, it will—

(1) Provide a logic model or conceptual framework that depicts, at a minimum, the goals, activities, project evaluation, methods, performance measures, outputs, and outcomes of the proposed project;

(2) Provide a plan to implement the activities described in this priority;

(3) Provide a plan, linked to the proposed project's logic model or conceptual framework, for a formative evaluation of the proposed project's activities. The plan must describe how the formative evaluation will use clear performance objectives to ensure continuous improvement in the operation of the proposed project, including objective measures of progress in implementing the project and ensuring the quality of products and resources;

(4) Describe a plan or method for assessing—

(i) The development and pilot sites' current educator training use and needs, any current technology investments, and the knowledge and availability of dedicated on-site technology training personnel;

(ii) The readiness of development and pilot sites to pilot or try-out the technology-based tool or approach, including, at a minimum, their current

[6] For this priority, a ''site'' is a school building or early childhood program within the local educational agency (LEA) or early childhood agency (ECA).

[7] Logic model (34 CFR 77.1) (also referred to as a theory of action) means a framework that identifies key project components of the proposed project (*i.e.,* the active ''ingredients'' that are hypothesized to be critical to achieving the relevant outcomes) and describes the theoretical and operational relationships among the key project components and relevant outcomes.

infrastructure, available resources, and ability to build capacity;

(iii) Whether the technology-based tool or approach has achieved its intended outcomes for PK–12 educators, families, and EL students with, and at risk for, disabilities; and

(iv) The ongoing professional learning needs of educators to implement with fidelity;

(5) Collect formative and summative data from the professional learning and coaching to refine and evaluate the products;

(6) If the project is extended to a fifth year—

(i) Provide the implementation package of products and resources developed for the technology-based tool or approach to no fewer than 10 additional school sites, four of which must be rural, in year five; and

(ii) Collect summative data about the success of the project's products and resources in supporting implementation of the technology-based tool or approach for educators and families of ELs with, and at risk for, disabilities; and

(7) By the end of the project period, provide—

(i) Information on the products and resources, as supported by the project evaluation, including accessibility features, that will enable other sites to implement and sustain implementation of the technology-based tool or approach;

(ii) Information in the project's Implementation Report, including data on how intended users (*e.g.,* educators, families, and students) utilized the technology-based tool or approach, how the technology-based tool or approach was implemented with fidelity, and how effective the technology-based tool or approach was in improving reading outcomes for ELs with, and at risk for, disabilities;

(iii) Data on how the technology-based tool or approach changed educators' practices; and

(iv) A plan for disseminating or scaling up the technology-based tool or approach and accompanying products beyond the sites directly involved in the project.

(d) Demonstrate, in the narrative section of the application under ''Adequacy of resources and quality of project personnel,'' how—

(1) The proposed project will encourage applications for employment from persons who are members of groups that have traditionally been underrepresented based on race, color, national origin, gender, age, or disability, as appropriate;

(2) The proposed key project personnel, consultants, and subcontractors have the qualifications and experience to carry out the proposed activities and achieve the project's intended outcomes;

(3) The applicant and any key partners have adequate resources to carry out the proposed activities; and

(4) The proposed costs are reasonable in relation to the anticipated results and benefits.

(e) Demonstrate, in the narrative section of the application under ''Quality of the management plan,'' how—

(1) The proposed management plan will ensure that the project's intended outcomes will be achieved on time and within budget. To address this requirement, the applicant must describe—

(i) Clearly defined responsibilities for key project personnel, consultants, and subcontractors, as applicable; and

(ii) Timelines and milestones for accomplishing the project tasks;

(2) Key project personnel and any consultants and subcontractors will be allocated and how these allocations are appropriate and adequate to achieve the project's intended outcomes;

(3) The proposed management plan will ensure that the products and resources provided are of high quality, relevant, and useful to recipients; and

(4) The proposed project will benefit from a diversity of perspectives, including those of families, educators, researchers, and policy makers, among others, in its development and operation.

(f) Address the following application requirements. The applicant must include—

(1) In Appendix A, personnel-loading charts and timelines, as applicable, to illustrate the management plan described in the narrative;

(2) In Appendix A, the logic model or conceptual framework by which the proposed project will develop project plans and activities and achieve its intended outcomes. The logic model or conceptual framework must include a description of any underlying concepts, assumptions, expectations, beliefs, or theories, as well as the presumed relationships or linkages among these variables, and any empirical support for this framework and depict, at a minimum, the goals, activities, outputs, and intended outcomes of the proposed project.

Note: The following websites provide more information on logic models and conceptual frameworks: *www.osepideasthatwork.org/logicModel* and *www.osepideasthatwork.org/resources-grantees/program-areas/ta-ta/tad-project-logic-model-and-conceptual-framework*; and

(3) In the budget, attendance at the following:

(i) A one and one-half day kick-off meeting in Washington, DC, or virtually, after receipt of the award, and an annual planning meeting in Washington, DC, or virtually, with the Office of Special Education Programs (OSEP) project officer and other relevant staff during each subsequent year of the project period.

Note: Within 30 days of receipt of the award, a post-award teleconference must be held between the OSEP project officer and the grantee's project director or other authorized representative.

(ii) A two and one-half-day project directors' conference in Washington, DC, or virtually, during each year of the project period.

(iii) Two annual two-day trips, or virtually, to attend Department briefings, Department-sponsored conferences, and other meetings, as requested by OSEP.

(iv) A one-day intensive, virtual OSEP review meeting during the last half of the second year of the project period.

Cohort Collaboration and Support

OSEP project officer(s) will provide coordination support among the projects. Each project funded under this priority must—

(a) Participate in monthly conference-call discussions to share and collaborate on implementation and project issues; and

(b) Provide information annually using a template that captures descriptive data on project site selection and the processes for implementation and use of the technology-based tool or approach.

Fifth Year of Project

The Secretary may extend a project one year beyond the initial 48 months to work with dissemination/scale-up sites if the grantee is substantially achieving the intended outcomes of the project (as demonstrated by data gathered as part of the project evaluation) and making a positive contribution to the implementation of a technology-based tool or approach based on at least promising evidence in the development and pilot sites. Each applicant must include in its application a plan for the full 60-month period. In deciding whether to continue funding the project for the fifth year, the Secretary will consider the requirements of 34 CFR 75.253(a), including—

(a) The recommendations of a review team consisting of the OSEP project officer and other experts who have experience and knowledge in

technology implementation for personnel serving children with disabilities. This review will be held during the last half of the second year of the project period;

(b) The timeliness with which, and how well, the requirements of the negotiated cooperative agreement have been or are being met by the project; and

(c) The degree to which the project's activities have changed practices and improved outcomes for PK–12 educators, and ELs with, and at risk for, disabilities.

Under 34 CFR 75.253, the Secretary may reduce continuation awards or discontinue awards in any year of the project period for excessive carryover balances or a failure to make substantial progress. The Department intends to closely monitor unobligated balances and substantial progress under this program and may reduce or discontinue funding accordingly.

Competitive Preference Priority: For FY 2022, this priority is a competitive preference priority. Under 34 CFR 75.105(c)(2)(i), we award an additional three points to an application that meets the competitive preference priority. Applicants should indicate in the abstract if the competitive preference priority is addressed and must address the competitive preference priority in the narrative section.

This priority is:

Applications from New Potential Grantees (0 or 3 points).

(a) Under this priority, an applicant must demonstrate that the applicant has not had an active discretionary grant under the 84.327S program from which it seeks funds, including through membership in a group application submitted in accordance with 34 CFR 75.127–75.129, five years before the deadline date for submission of applications under the program.

(b) For the purpose of this priority, a grant or contract is active until the end of the grant's or contract's project or funding period, including any extensions of those periods that extend the grantee's or contractor's authority to obligate funds.

References

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Waiver of Proposed Rulemaking: Under the Administrative Procedure Act (APA) (5 U.S.C. 553) the Department generally offers interested parties the opportunity to comment on proposed priorities. Section 681(d) of IDEA, however, makes the public comment requirements of the APA inapplicable to the absolute priority in this notice.

Program Authority: 20 U.S.C. 1474 and 1481.

Note: Projects will be awarded and must be operated in a manner consistent with nondiscrimination requirements contained in Federal civil rights laws.

Applicable Regulations: (a) The Education Department General Administrative Regulations in 34 CFR parts 75, 77, 79, 81, 82, 84, 86, 97, 98, and 99. (b) The Office of Management and Budget Guidelines to Agencies on Governmentwide Debarment and Suspension (Nonprocurement) in 2 CFR part 180, as adopted and amended as regulations of the Department in 2 CFR part 3485. (c) The Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards in 2 CFR part 200, as adopted and amended as regulations of the Department in 2 CFR part 3474. (d) Administrative Priorities.

Note: The regulations in 34 CFR part 79 apply to all applicants except federally recognized Indian Tribes.

Note: The regulations in 34 CFR part 86 apply to institutions of higher education (IHEs) only.

II. Award Information

Type of Award: Cooperative agreements.

Estimated Available Funds: The Administration has requested $29,547,000 for the Educational Technology, Media, and Materials for Individuals with Disabilities program for FY 2022, of which we intend to use an estimated $1,500,000 for this competition. The actual level of funding, if any, depends on final congressional action. However, we are inviting applications to allow enough time to complete the grant process if Congress appropriates funds for this program.

Contingent upon the availability of funds and the quality of applications, we may make additional awards in FY 2023 from the list of unfunded applications from this competition.

Estimated Range of Awards: $450,000 to $500,000 per year.

Estimated Average Size of Awards: $475,000 per year.

Maximum Award: We will not make an award exceeding $2,500,000 for the 60-month project period.

Estimated Number of Awards: 3.

Note: The Department is not bound by any estimates in this notice.

Project Period: Up to 60 months.

III. Eligibility Information

1. *Eligible Applicants:* SEAs; LEAs, including public charter schools that operate as LEAs under State law; IHEs; other public agencies; private nonprofit organizations; freely associated States and outlying areas; Indian Tribes or Tribal organizations; and for-profit organizations.

2. a. *Cost Sharing or Matching:* This program does not require cost sharing or matching.

b. *Indirect Cost Rate Information:* This program uses an unrestricted indirect cost rate. For more information regarding indirect costs, or to obtain a negotiated indirect cost rate, please see *www2.ed.gov/about/offices/list/ocfo/intro.html.*

c. *Administrative Cost Limitation:* This program does not include any program-specific limitation on administrative expenses. All administrative expenses must be reasonable and necessary and conform to the Cost Principles described in 2 CFR part 200 subpart E of the Uniform Guidance.

3. *Subgrantees:* A grantee under this competition may not award subgrants to entities to directly carry out project activities described in its application. Under 34 CFR 75.708(e), a grantee may contract for supplies, equipment, and other services in accordance with 2 CFR part 200.

4. *Other General Requirements:*

a. Recipients of funding under this competition must make positive efforts to employ and advance in employment

qualified individuals with disabilities (see section 606 of IDEA).

b. Applicants for, and recipients of, funding must, with respect to the aspects of their proposed project relating to the absolute priority, involve individuals with disabilities, or parents of individuals with disabilities ages birth through 26, in planning, implementing, and evaluating the project (see section 682(a)(1)(A) of IDEA).

IV. Application and Submission Information

1. *Application Submission Instructions:* Applicants are required to follow the Common Instructions for Applicants to Department of Education Discretionary Grant Programs, published in the **Federal Register** on December 27, 2021 (86 FR 73264) and available at *www.federalregister.gov/d/2021–27979,* which contain requirements and information on how to submit an application. Please note that these Common Instructions supersede the version published on February 13, 2019, and, in part, describe the transition from the requirement to register in SAM.gov a DUNS number to the implementation of the UEI. More information on the phase-out of DUNS numbers is available at *https://www2.ed.gov/about/offices/list/ofo/docs/unique-entity-identifier-transition-fact-sheet.pdf.*

2. *Intergovernmental Review:* This competition is subject to Executive Order 12372 and the regulations in 34 CFR part 79. Information about Intergovernmental Review of Federal Programs under Executive Order 12372 is in the application package for this competition.

3. *Funding Restrictions:* We reference regulations outlining funding restrictions in the *Applicable Regulations* section of this notice.

4. *Recommended Page Limit:* The application narrative is where you, the applicant, address the selection criteria that reviewers use to evaluate your application. We recommend that you (1) limit the application narrative to no more than 50 pages and (2) use the following standards:

- A ''page'' is 8.5″ x 11″, on one side only, with 1″ margins at the top, bottom, and both sides.
- Double-space (no more than three lines per vertical inch) all text in the application narrative, including titles, headings, footnotes, quotations, reference citations, and captions, as well as all text in charts, tables, figures, graphs, and screen shots.
- Use a font that is 12 point or larger.
- Use one of the following fonts: Times New Roman, Courier, Courier New, or Arial.

The recommended page limit does not apply to the cover sheet; the budget section, including the narrative budget justification; the assurances and certifications; or the abstract (follow the guidance provided in the application package for completing the abstract), the table of contents, the list of priority requirements, the resumes, the reference list, the letters of support, or the appendices. However, the recommended page limit does apply to all of the application narrative, including all text in charts, tables, figures, graphs, and screen shots.

V. Application Review Information

1. *Selection Criteria:* The selection criteria for this competition are from 34 CFR 75.210 and are as follows:

(a) *Significance (15 points).*

(1) The Secretary considers the significance of the proposed project.

(2) In determining the significance of the proposed project, the Secretary considers the following factors:

(i) The significance of the problem or issue to be addressed by the proposed project;

(ii) The extent to which specific gaps or weaknesses in services, infrastructure, or opportunities have been identified and will be addressed by the proposed project, including the nature and magnitude of those gaps or weaknesses;

(iii) The potential contribution of the proposed project to increased knowledge or understanding of educational problems, issues, or effective strategies; and

(iv) The potential replicability of the proposed project or strategies, including, as appropriate, the potential for implementation in a variety of settings.

(b) *Quality of project services (30 points).*

(1) The Secretary considers the quality of the services to be provided by the proposed project.

(2) In determining the quality of the services to be provided by the proposed project, the Secretary considers the quality and sufficiency of strategies for ensuring equal access and treatment for eligible project participants who are members of groups that have traditionally been underrepresented based on race, color, national origin, gender, age, or disability.

(3) In addition, the Secretary considers the following factors:

(i) The extent to which the services to be provided by the proposed project reflect up-to-date knowledge from research and effective practice;

(ii) The extent to which the professional learning and coaching services to be provided by the proposed project are of sufficient quality, intensity, and duration to lead to improvements in practice among the recipients of those services;

(iii) The extent to which the services to be provided by the proposed project involve the collaboration of appropriate partners for maximizing the effectiveness of project services;

(iv) The extent to which the services to be provided by the proposed project are appropriate to the needs of the intended recipients or beneficiaries of those services; and

(v) The likely impact of the services to be provided by the proposed project on the intended recipients of those services.

(c) *Quality of the project evaluation (20 points).*

(1) The Secretary considers the quality of the evaluation to be conducted of the proposed project.

(2) In determining the quality of the evaluation, the Secretary considers the following factors:

(i) The extent to which the methods of evaluation are thorough, feasible, and appropriate to the goals, objectives, and outcomes of the proposed project;

(ii) The extent to which the methods of evaluation include the use of objective performance measures that are clearly related to the intended outcomes of the project and will produce quantitative and qualitative data to the extent possible;

(iii) The extent to which the methods of evaluation provide for examining the effectiveness of project implementation strategies;

(iv) The extent to which the methods of evaluation will provide performance feedback and permit periodic assessment of progress toward achieving intended outcomes; and

(v) The extent to which the evaluation plan clearly articulates the key project components, mediators, and outcomes, as well as a measurable threshold for acceptable implementation.

(d) *Adequacy of resources and quality of project personnel (20 points).*

(1) The Secretary considers the adequacy of resources for the proposed project and the quality of the personnel who will carry out the proposed project.

(2) In determining the quality of project personnel, the Secretary considers the extent to which the applicant encourages applications for employment from persons who are members of groups that have traditionally been underrepresented

based on race, color, national origin, gender, age, or disability.

(3) In addition, the Secretary considers the following factors:

(i) The qualifications, including relevant training and experience, of key project personnel;

(ii) The qualifications, including relevant training and experience, of project consultants or subcontractors;

(iii) The adequacy of support, including facilities, equipment, supplies, and other resources, from the applicant organization or the lead applicant organization;

(iv) The relevance and demonstrated commitment of each partner in the proposed project to the implementation and success of the project; and

(v) The extent to which the costs are reasonable in relation to the objectives, design, and potential significance of the proposed project.

(e) *Quality of the management plan (15 points).*

(1) The Secretary considers the quality of the management plan for the proposed project.

(2) In determining the quality of the management plan for the proposed project, the Secretary considers the following factors:

(i) The adequacy of the management plan to achieve the objectives of the proposed project on time and within budget, including clearly defined responsibilities, timelines, and milestones for accomplishing project tasks;

(ii) The extent to which the time commitments of the project director and principal investigator and other key project personnel are appropriate and adequate to meet the objectives of the proposed project;

(iii) How the applicant will ensure that a diversity of perspectives are brought to bear in the operation of the proposed project, including those of parents, teachers, the business community, a variety of disciplinary and professional fields, recipients or beneficiaries of services, or others, as appropriate; and

(iv) The adequacy of procedures for ensuring feedback and continuous improvement in the operation of the proposed project.

2. *Review and Selection Process:* We remind potential applicants that in reviewing applications in any discretionary grant competition, the Secretary may consider, under 34 CFR 75.217(d)(3), the past performance of the applicant in carrying out a previous award, such as the applicant's use of funds, achievement of project objectives, and compliance with grant conditions. The Secretary may also consider whether the applicant failed to submit a timely performance report or submitted a report of unacceptable quality.

In addition, in making a competitive grant award, the Secretary requires various assurances, including those applicable to Federal civil rights laws that prohibit discrimination in programs or activities receiving Federal financial assistance from the Department (34 CFR 100.4, 104.5, 106.4, 108.8, and 110.23).

3. *Additional Review and Selection Process Factors:* In the past, the Department has had difficulty finding peer reviewers for certain competitions because so many individuals who are eligible to serve as peer reviewers have conflicts of interest. The standing panel requirements under section 682(b) of IDEA also have placed additional constraints on the availability of reviewers. Therefore, the Department has determined that for some discretionary grant competitions, applications may be separated into two or more groups and ranked and selected for funding within specific groups. This procedure will make it easier for the Department to find peer reviewers by ensuring that greater numbers of individuals who are eligible to serve as reviewers for any particular group of applicants will not have conflicts of interest. It also will increase the quality, independence, and fairness of the review process, while permitting panel members to review applications under discretionary grant competitions for which they also have submitted applications.

4. *Risk Assessment and Specific Conditions:* Consistent with 2 CFR 200.206, before awarding grants under this competition the Department conducts a review of the risks posed by applicants. Under 2 CFR 200.208, the Secretary may impose specific conditions, and under 2 CFR 3474.10, in appropriate circumstances, high-risk conditions on a grant if the applicant or grantee is not financially stable; has a history of unsatisfactory performance; has a financial or other management system that does not meet the standards in 2 CFR part 200, subpart D; has not fulfilled the conditions of a prior grant; or is otherwise not responsible.

5. *Integrity and Performance System:* If you are selected under this competition to receive an award that over the course of the project period may exceed the simplified acquisition threshold (currently $250,000), under 2 CFR 200.206(a)(2) we must make a judgment about your integrity, business ethics, and record of performance under Federal awards—that is, the risk posed by you as an applicant—before we make an award. In doing so, we must consider any information about you that is in the integrity and performance system (currently referred to as the Federal Awardee Performance and Integrity Information System (FAPIIS)), accessible through the System for Award Management. You may review and comment on any information about yourself that a Federal agency previously entered and that is currently in FAPIIS.

Please note that, if the total value of your currently active grants, cooperative agreements, and procurement contracts from the Federal Government exceeds $10,000,000, the reporting requirements in 2 CFR part 200, Appendix XII, require you to report certain integrity information to FAPIIS semiannually. Please review the requirements in 2 CFR part 200, Appendix XII, if this grant plus all the other Federal funds you receive exceed $10,000,000.

6. *In General:* In accordance with the Office of Management and Budget's guidance located at 2 CFR part 200, all applicable Federal laws, and relevant Executive guidance, the Department will review and consider applications for funding pursuant to this notice inviting applications in accordance with—

(a) Selecting recipients most likely to be successful in delivering results based on the program objectives through an objective process of evaluating Federal award applications (2 CFR 200.205);

(b) Prohibiting the purchase of certain telecommunication and video surveillance services or equipment in alignment with section 889 of the National Defense Authorization Act of 2019 (Pub. L. 115—232) (2 CFR 200.216);

(c) Providing a preference, to the extent permitted by law, to maximize use of goods, products, and materials produced in the United States (2 CFR 200.322); and

(d) Terminating agreements in whole or in part to the greatest extent authorized by law if an award no longer effectuates the program goals or agency priorities (2 CFR 200.340).

VI. Award Administration Information

1. *Award Notices:* If your application is successful, we notify your U.S. Representative and U.S. Senators and send you a Grant Award Notification (GAN); or we may send you an email containing a link to access an electronic version of your GAN. We may notify you informally, also.

If your application is not evaluated or not selected for funding, we notify you.

2. *Administrative and National Policy Requirements:* We identify

administrative and national policy requirements in the application package and reference these and other requirements in the *Applicable Regulations* section of this notice.

We reference the regulations outlining the terms and conditions of an award in the *Applicable Regulations* section of this notice and include these and other specific conditions in the GAN. The GAN also incorporates your approved application as part of your binding commitments under the grant.

3. *Open Licensing Requirements:* Unless an exception applies, if you are awarded a grant under this competition, you will be required to openly license to the public grant deliverables created in whole, or in part, with Department grant funds. When the deliverable consists of modifications to pre-existing works, the license extends only to those modifications that can be separately identified and only to the extent that open licensing is permitted under the terms of any licenses or other legal restrictions on the use of pre-existing works.

Additionally, a grantee that is awarded competitive grant funds must have a plan to disseminate these public grant deliverables. This dissemination plan can be developed and submitted after your application has been reviewed and selected for funding. For additional information on the open licensing requirements please refer to 2 CFR 3474.20.

4. *Reporting:* (a) If you apply for a grant under this competition, you must ensure that you have in place the necessary processes and systems to comply with the reporting requirements in 2 CFR part 170 should you receive funding under the competition. This does not apply if you have an exception under 2 CFR 170.110(b).

(b) At the end of your project period, you must submit a final performance report, including financial information, as directed by the Secretary. If you receive a multiyear award, you must submit an annual performance report that provides the most current performance and financial expenditure information as directed by the Secretary under 34 CFR 75.118. The Secretary may also require more frequent performance reports under 34 CFR 75.720(c). For specific requirements on reporting, please go to *www.ed.gov/fund/grant/apply/appforms/appforms.html.*

(c) Under 34 CFR 75.250(b), the Secretary may provide a grantee with additional funding for data collection analysis and reporting. In this case the Secretary establishes a data collection period.

5. *Performance Measures:* For the purposes of reporting under 34 CFR 75.110, we have established a set of performance measures, including long-term measures, that are designed to yield information on various aspects of the effectiveness and quality of the Educational Technology, Media, and Materials (ETechM2) for Individuals with Disabilities program. These measures are:

- *Program Performance Measure 1:* The percentage of ETechM2 program products and services judged to be of high quality by an independent review panel of experts qualified to review the substantial content of the products and services.
- *Program Performance Measure 2:* The percentage of ETechM2 program products and services judged to be of high relevance to improving outcomes for infants, toddlers, children, and youth with disabilities.
- *Program Performance Measure 3:* The percentage of ETechM2 program products and services judged to be useful in improving results for infants, toddlers, children, and youth with disabilities.
- *Program Performance Measure 4.1:* The Federal cost per unit of accessible educational materials funded by the ETechM2 program.
- *Program Performance Measure 4.2:* The Federal cost per unit of accessible educational materials from the National Instructional Materials Access Center funded by the ETechM2 program.
- *Program Performance Measure 4.3:* The Federal cost per unit of video description funded by the ETechM2 program.

These measures apply to projects funded under this competition, and grantees are required to submit data on these measures as directed by OSEP.

Grantees will be required to report information on their project's performance in annual performance reports and additional performance data to the Department (34 CFR 75.590 and 75.591).

6. *Continuation Awards:* In making a continuation award under 34 CFR 75.253, the Secretary considers, among other things: whether a grantee has made substantial progress in achieving the goals and objectives of the project; whether the grantee has expended funds in a manner that is consistent with its approved application and budget; and, if the Secretary has established performance measurement requirements, whether the grantee has made substantial progress in achieving the performance targets in the grantee's approved application.

In making a continuation award, the Secretary also considers whether the grantee is operating in compliance with the assurances in its approved application, including those applicable to Federal civil rights laws that prohibit discrimination in programs or activities receiving Federal financial assistance from the Department (34 CFR 100.4, 104.5, 106.4, 108.8, and 110.23).

VII. Other Information

Accessible Format: On request to the program contact person listed under **FOR FURTHER INFORMATION CONTACT**, individuals with disabilities can obtain this document and a copy of the application package in an accessible format. The Department will provide the requestor with an accessible format that may include Rich Text Format (RTF) or text format (txt), a thumb drive, an MP3 file, braille, large print, audiotape, or compact disc, or other accessible format.

Electronic Access to This Document: The official version of this document is the document published in the **Federal Register**. You may access the official edition of the **Federal Register** and the Code of Federal Regulations at *www.govinfo.gov.* At this site you can view this document, as well as all other documents of this Department published in the **Federal Register**, in text or Portable Document Format (PDF). To use PDF, you must have Adobe Acrobat Reader, which is available free at the site.

You may also access documents of the Department published in the **Federal Register** by using the article search feature at *www.federalregister.gov.* Specifically, through the advanced search feature at this site, you can limit your search to documents published by the Department.

Katherine Neas,

Deputy Assistant Secretary. Delegated the authority to perform the functions and duties of the Assistant Secretary for the Office of Special Education and Rehabilitative Services.

[FR Doc. 2022–03679 Filed 2–18–22; 8:45 am]

BILLING CODE 4000–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. ID–9395–000]

Killamsetty, Pradeep; Notice of Filing

Take notice that on February 11, 2022, Pradeep Killamsetty submitted for filing, application for authority to hold interlocking positions, pursuant to

section 305(b) of the Federal Power Act, 16 U.S.C. 825d (b) and Part 45.8 of the Federal Energy Regulatory Commission's (Commission) Rules of Practice and Procedure, 18 CFR part 45.8.

Any person desiring to intervene or to protest this filing must file in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211, 385.214). Protests will be considered by the Commission in determining the appropriate action to be taken but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a notice of intervention or motion to intervene, as appropriate. Such notices, motions, or protests must be filed on or before the comment date. On or before the comment date, it is not necessary to serve motions to intervene or protests on persons other than the Applicant.

In addition to publishing the full text of this document in the **Federal Register**, the Commission provides all interested persons an opportunity to view and/or print the contents of this document via the internet through the Commission's Home Page (*http://www.ferc.gov*) using the ''eLibrary'' link. Enter the docket number excluding the last three digits in the docket number field to access the document. At this time, the Commission has suspended access to the Commission's Public Reference Room, due to the proclamation declaring a National Emergency concerning the Novel Coronavirus Disease (COVID–19), issued by the President on March 13, 2020. For assistance, contact the Federal Energy Regulatory Commission at *FERCOnlineSupport@ferc.gov* or call toll-free, (886) 208–3676 or TYY, (202) 502–8659.

The Commission strongly encourages electronic filings of comments, protests and interventions in lieu of paper using the ''eFiling'' link at *http://www.ferc.gov.* Persons unable to file electronically may mail similar pleadings to the Federal Energy Regulatory Commission, 888 First Street NE, Washington, DC 20426. Hand delivered submissions in docketed proceedings should be delivered to Health and Human Services, 12225 Wilkins Avenue, Rockville, Maryland 20852.

Comment Date: 5:00 p.m. Eastern Time on March 4, 2022.

Dated: February 15, 2022.

Kimberly D. Bose,

Secretary.

[FR Doc. 2022–03695 Filed 2–18–22; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. ID–9120–000]

Milligan, James H.; Notice of Filing

Take notice that on February 11, 2022, James H. Milligan submitted for filing, application for authority to hold interlocking positions, pursuant to section 305(b) of the Federal Power Act, 16 U.S.C. 825d (b) and Part 45.8 of the Federal Energy Regulatory Commission's (Commission) Rules of Practice and Procedure, 18 CFR part 45.8.

Any person desiring to intervene or to protest this filing must file in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211, 385.214). Protests will be considered by the Commission in determining the appropriate action to be taken but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a notice of intervention or motion to intervene, as appropriate. Such notices, motions, or protests must be filed on or before the comment date. On or before the comment date, it is not necessary to serve motions to intervene or protests on persons other than the Applicant.

In addition to publishing the full text of this document in the **Federal Register**, the Commission provides all interested persons an opportunity to view and/or print the contents of this document via the internet through the Commission's Home Page (*http://www.ferc.gov*) using the ''eLibrary'' link. Enter the docket number excluding the last three digits in the docket number field to access the document. At this time, the Commission has suspended access to the Commission's Public Reference Room, due to the proclamation declaring a National Emergency concerning the Novel Coronavirus Disease (COVID–19), issued by the President on March 13, 2020. For assistance, contact the Federal Energy Regulatory Commission at *FERCOnlineSupport@ferc.gov* or call toll-free, (886) 208–3676 or TYY, (202) 502–8659.

The Commission strongly encourages electronic filings of comments, protests and interventions in lieu of paper using the ''eFiling'' link at *http://www.ferc.gov.* Persons unable to file electronically may mail similar pleadings to the Federal Energy Regulatory Commission, 888 First Street NE, Washington, DC 20426. Hand delivered submissions in docketed proceedings should be delivered to Health and Human Services, 12225 Wilkins Avenue, Rockville, Maryland 20852.

Comment Date: 5:00 p.m. Eastern Time on March 4, 2022.

Dated: February 15, 2022.

Kimberly D. Bose,

Secretary.

[FR Doc. 2022–03691 Filed 2–18–22; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. CP22–16–000]

Georgia-Pacific Consumer Operations LLC; Notice of Schedule for the Preparation of an Environmental Assessment for the Georgia-Pacific Consumer Pipeline Abandonment Project

On November 16, 2021, Georgia-Pacific Consumer Operations LLC (GPC) filed an application in Docket No. CP22–16–000 requesting Authorization pursuant to Section 7(b) of the Natural Gas Act to abandon certain gas pipeline facilities. The proposed project is known as the Georgia-Pacific Consumer Pipeline Abandonment Project (Project) and involves abandoning natural gas transmission pipeline and auxiliary facilities in Union Parish, Louisiana and Ashley County, Arkansas.

On November 30, 2021, the Federal Energy Regulatory Commission (Commission or FERC) issued its Notice of Application for the Project. Among other things, that notice alerted agencies issuing federal authorizations of the requirement to complete all necessary reviews and to reach a final decision on a request for a federal authorization within 90 days of the date of issuance of the Commission staff's environmental document for the Project.

This notice identifies Commission staff's intention to prepare an environmental assessment (EA) for the Project and the planned schedule for the completion of the environmental review.[1]

Schedule for Environmental Review

Issuance of EA	May 27, 2022
90-day Federal Authorization Decision Deadline[2]	August 25, 2022

[1] 40 CFR 1501.10 (2020)

[2] The Commission's deadline applies to the decisions of other federal agencies, and state agencies acting under federally delegated authority, that are responsible for federal authorizations,

Continued

If a schedule change becomes necessary, additional notice will be provided so that the relevant agencies are kept informed of the Project's progress.

Project Description

GPC proposes to abandon in-place approximately 19.5 miles of 8-inch-diameter natural gas transmission pipeline and auxiliary facilities in Union Parish, Louisiana and Ashley County, Arkansas. Additionally, GPC proposes to abandon by removal all aboveground features associated with the 19.5 miles of pipeline.

Background

On February 1, 2022, the Commission issued a *Notice of Scoping Period Requesting Comments on Environmental Issues for the Proposed GPC Pipeline Abandonment Project.* The Notice of Scoping was sent to affected landowners; federal, state, and local government agencies; elected officials; environmental and public interest groups; Native American tribes; other interested parties; and local libraries and newspapers. The Notice of Scoping stated that the scoping period would end on March 3, 2022. All substantive comments received in response to the Notice of Application and Notice of Scoping will be addressed in the EA.

Additional Information

In order to receive notification of the issuance of the EA and to keep track of formal issuances and submittals in specific dockets, the Commission offers a free service called eSubscription. This service provides automatic notification of filings made to subscribed dockets, document summaries, and direct links to the documents. Go to *https://www.ferc.gov/ferc-online/overview* to register for eSubscription.

Additional information about the Project is available from the Commission's Office of External Affairs at (866) 208–FERC or on the FERC website (*www.ferc.gov*). Using the ''eLibrary'' link, select ''General Search'' from the eLibrary menu, enter the selected date range and ''Docket Number'' excluding the last three digits (*i.e.,* CP22–16–000), and follow the instructions. For assistance with access to eLibrary, the helpline can be reached at (866) 208–3676, TTY (202) 502–8659, or at *FERCOnlineSupport@ferc.gov.* The eLibrary link on the FERC website also provides access to the texts of formal documents issued by the Commission, such as orders, notices, and rule makings.

Dated: February 15, 2022.

Kimberly D. Bose,

Secretary.

[FR Doc. 2022–03693 Filed 2–18–22; 8:45 am]

BILLING CODE 6717–01–P

permits, and other approvals necessary for proposed projects under the Natural Gas Act. Per 18 CFR 157.22(a), the Commission's deadline for other agency's decisions applies unless a schedule is otherwise established by federal law.

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. RM21–9–000]

Technical Conference on Financial Assurance Measures for Hydroelectric Projects; Supplemental Notice of Technical Conference

As announced in the Notice of Technical Conference issued in this proceeding on January 25, 2022, the Federal Energy Regulatory Commission (Commission) will convene a Commission staff-led technical conference to discuss how the Commission may require additional financial assurance mechanisms in the licenses and other authorizations it issues for hydroelectric projects, to ensure that licensees have the capability to carry out license requirements and, particularly, to maintain their projects in safe condition. The technical conference will be held on Tuesday, April 26, 2022, from approximately 11:30 to 4:15 p.m. Eastern time. The conference will be held virtually.

The agenda for this event is attached. The conference will be open for the public to attend virtually, and there is no fee for attendance. A second supplemental notice will be issued prior to the conference with the confirmed panelists. Information on this technical conference will also be posted on the Calendar of Events on the Commission's website, *www.ferc.gov,* prior to the event. Transcripts will be available for a fee from Ace Reporting, (202) 347–3700.

Individuals interested in participating as panelists should self-nominate by 5:00 p.m. Eastern time on Tuesday, March 1, 2022, via email at the following address: *HydroFinancialAssurance@ferc.gov.* The self-nominations should have ''Panelist Self-Nomination'' in the subject line and include the panelist's name, title, organization, mailing address, telephone number, email address, one paragraph biography, photograph, and panel selection.

Commission conferences are accessible under section 508 of the Rehabilitation Act of 1973. For accessibility accommodations, please send an email to *accessibility@ferc.gov,* call toll-free (866) 208–3372 (voice) or (202) 208–8659 (TTY), or send a fax to (202) 208–2106 with the required accommodations.

For more information about this technical conference, please contact *HydroFinancialAssurance@ferc.gov.* For information related to logistics, please contact Sarah McKinley at *sarah.mckinley@ferc.gov* or (202) 502–8368.

Dated: February 15, 2022.

Kimberly D. Bose,

Secretary.

[FR Doc. 2022–03694 Filed 2–18–22; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

Combined Notice of Filings

Take notice that the Commission has received the following Natural Gas Pipeline Rate and Refund Report filings:

Filings Instituting Proceedings

Docket Numbers: RP22–547–000.
Applicants: Iroquois Gas Transmission System, L.P.
Description: § 4(d) Rate Filing: 2.15.22 Negotiated Rates—Castleton Commodities Merchant Trading L.P. R–4010–06 to be effective 4/1/2022.
Filed Date: 2/15/22.
Accession Number: 20220215–5044.
Comment Date: 5 p.m. ET 2/28/22.

Docket Numbers: RP22–548–000.
Applicants: Iroquois Gas Transmission System, L.P.
Description: § 4(d) Rate Filing: 2.15.22 Negotiated Rates—Direct Energy Business Marketing, LLC R–7465–08 to be effective 4/1/2022.
Filed Date: 2/15/22.
Accession Number: 20220215–5045.
Comment Date: 5 p.m. ET 2/28/22.

Docket Numbers: RP22–549–000.
Applicants: Iroquois Gas Transmission System, L.P.
Description: § 4(d) Rate Filing: 2.15.22 Negotiated Rates—Direct Energy Business Marketing, LLC R–7465–02 to be effective 4/1/2022.
Filed Date: 2/15/22.
Accession Number: 20220215–5049.
Comment Date: 5 p.m. ET 2/28/22.

Docket Numbers: RP22–550–000.
Applicants: Iroquois Gas Transmission System, L.P.

Description: § 4(d) Rate Filing: 2.15.22 Negotiated Rates—Citadel Energy Marketing LLC R–7705–09 to be effective 4/1/2022.

Filed Date: 2/15/22.

Accession Number: 20220215–5050.

Comment Date: 5 p.m. ET 2/28/22.

Any person desiring to intervene or protest in any of the above proceedings must file in accordance with Rules 211 and 214 of the Commission's Regulations (18 CFR 385.211 and 385.214) on or before 5:00 p.m. Eastern time on the specified comment date. Protests may be considered, but intervention is necessary to become a party to the proceeding.

The filings are accessible in the Commission's eLibrary system (*https://elibrary.ferc.gov/idmws/search/fercgensearch.asp*) by querying the docket number.

eFiling is encouraged. More detailed information relating to filing requirements, interventions, protests, service, and qualifying facilities filings can be found at: *http://www.ferc.gov/docs-filing/efiling/filing-req.pdf.* For other information, call (866) 208–3676 (toll free). For TTY, call (202) 502–8659.

Dated: February 15, 2022.

Debbie-Anne A. Reese,

Deputy Secretary.

[FR Doc. 2022–03688 Filed 2–18–22; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

Combined Notice of Filings #1

Take notice that the Commission received the following electric corporate filings:

Docket Numbers: EC22–40–000.

Applicants: Broadlands Wind Farm LLC, Lexington Chenoa Wind Farm LLC.

Description: Joint Application for Authorization Under Section 203 of the Federal Power Act of Broadlands Wind Farm LLC, et al.

Filed Date: 2/11/22.

Accession Number: 20220211–5302.

Comment Date: 5 p.m. ET 3/4/22.

Take notice that the Commission received the following Complaints and Compliance filings in EL Dockets:

Docket Numbers: EL22–30–000.

Applicants: Southwestern Public Service Company v. *Southwest Power Pool, Inc.*

Description: Complaint of Southwestern Public Service Company Against Southwest Power Pool, Inc.

Filed Date: 2/11/22.

Accession Number: 20220211–5298.

Comment Date: 5 p.m. ET 3/3/22.

Docket Numbers: EL22–31–000.

Applicants: Northern Maine Independent System Administrator, Inc. v. *ISO-New England Participating Transmission Owners Administrative Committee.*

Description: Complaint of Northern Maine Independent System Administrator, Inc., v. *ISO-New England Participating Transmission Owners Administrative Committee.*

Filed Date: 2/14/22.

Accession Number: 20220214–5265.

Comment Date: 5 p.m. ET 3/7/22.

Take notice that the Commission received the following electric rate filings:

Docket Numbers: ER17–1821–004.

Applicants: Panda Stonewall LLC.

Description: Refund Report: Potomac Energy Center, LLC submits tariff filing per 35.19a(b): Refund Report to be effective N/A.

Filed Date: 2/15/22.

Accession Number: 20220215–5058.

Comment Date: 5 p.m. ET 3/8/22.

Docket Numbers: ER21–673–001.

Applicants: PA Solar Park II, LLC.

Description: Refund Report: PA Solar II Refund Report to be effective N/A.

Filed Date: 2/15/22.

Accession Number: 20220215–5144.

Comment Date: 5 p.m. ET 3/8/22.

Docket Numbers: ER21–1501–003.

Applicants: Sandy Ridge Wind, LLC.

Description: Compliance filing: Sandy Ridge Wind, LLC—Reactive Rate Service Compliance Filing (ER21–1501–) to be effective 5/24/2021.

Filed Date: 2/15/22.

Accession Number: 20220215–5164.

Comment Date: 5 p.m. ET 3/8/22.

Docket Numbers: ER22–726–001.

Applicants: Unitil Energy Systems, Inc.

Description: Tariff Amendment: Amendment to 75 to be effective 1/1/2022.

Filed Date: 2/15/22.

Accession Number: 20220215–5142.

Comment Date: 5 p.m. ET 3/8/22.

Docket Numbers: ER22–823–000.

Applicants: PJM Interconnection, L.L.C.

Description: § 205(d) Rate Filing: Amendment to ISA, Service Agreement No. 3761, Racine ISA (consent) to be effective 12/31/2013.

Filed Date: 1/14/22.

Accession Number: 20220114–5129.

Comment Date: 5 p.m. ET 2/18/22.

Docket Numbers: ER22–1049–000.

Applicants: Municipal Energy Agency of Nebraska.

Description: Request For Waiver of Tariff Provision, et al. of Municipal Energy Agency of Nebraska.

Filed Date: 2/14/22.

Accession Number: 20220214–5263.

Comment Date: 5 p.m. ET 3/4/22.

Docket Numbers: ER22–1050–000.

Applicants: DesertLink, LLC.

Description: § 205(d) Rate Filing: DesertLinks Formula Rate Revision Filing to be effective 4/18/2022.

Filed Date: 2/15/22.

Accession Number: 20220215–5079.

Comment Date: 5 p.m. ET 3/8/22.

Docket Numbers: ER22–1051–000.

Applicants: Alabama Power Company, Georgia Power Company, Mississippi Power Company.

Description: § 205(d) Rate Filing: Alabama Power Company submits tariff filing per 35.13(a)(2)(iii): CPV Stagecoach Solar LGIA Amendment Filing to be effective 2/1/2022.

Filed Date: 2/15/22.

Accession Number: 20220215–5096.

Comment Date: 5 p.m. ET 3/8/22.

Docket Numbers: ER22–1052–000.

Applicants: Alabama Power Company, Georgia Power Company, Mississippi Power Company.

Description: Tariff Amendment: Alabama Power Company submits tariff filing per 35.15: Glennville Solar LGIA Termination Filing to be effective 2/15/2022.

Filed Date: 2/15/22.

Accession Number: 20220215–5098.

Comment Date: 5 p.m. ET 3/8/22.

Docket Numbers: ER22–1053–000.

Applicants: ISO New England Inc.

Description: § 205(d) Rate Filing: ISO–NE; Exigent Circumstances Filing of Revisions to Section III.13 to be effective 2/16/2022.

Filed Date: 2/15/22.

Accession Number: 20220215–5104.

Comment Date: 5 p.m. ET 3/8/22.

Docket Numbers: ER22–1054–000.

Applicants: AEP Texas Inc.

Description: § 205(d) Rate Filing: AEPTX-Hecate Grid East Valley Generation Interconnection Agreement to be effective 2/3/2022.

Filed Date: 2/15/22.

Accession Number: 20220215–5109.

Comment Date: 5 p.m. ET 3/8/22.

Docket Numbers: ER22–1055–000.

Applicants: Trans Bay Cable LLC.

Description: § 205(d) Rate Filing: Annual TRBAA Filing—2021 to be effective 1/1/2022.

Filed Date: 2/15/22.

Accession Number: 20220215–5124.

Comment Date: 5 p.m. ET 3/8/22

Docket Numbers: ER22–1056–000.

Applicants: Tri-State Generation and Transmission Association, Inc.

Description: § 205(d) Rate Filing: Amendment to Wholesale Electric Service Contracts to be effective 4/17/2022.

Filed Date: 2/15/22.

Accession Number: 20220215–5140.

Comment Date: 5 p.m. ET 3/8/22.

The filings are accessible in the Commission's eLibrary system (*https://elibrary.ferc.gov/idmws/search/fercgensearch.asp*) by querying the docket number.

Any person desiring to intervene or protest in any of the above proceedings must file in accordance with Rules 211 and 214 of the Commission's Regulations (18 CFR 385.211 and 385.214) on or before 5:00 p.m. Eastern time on the specified comment date. Protests may be considered, but intervention is necessary to become a party to the proceeding.

eFiling is encouraged. More detailed information relating to filing requirements, interventions, protests, service, and qualifying facilities filings can be found at: *http://www.ferc.gov/docs-filing/efiling/filing-req.pdf.* For other information, call (866) 208–3676 (toll free). For TTY, call (202) 502–8659.

Dated: February 15, 2022.

Debbie-Anne A. Reese,

Deputy Secretary.

[FR Doc. 2022–03687 Filed 2–18–22; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. ID–9394–000]

Fontana, Joseph; Notice of Filing

Take notice that on February 11, 2022, Joseph Fontana submitted for filing, application for authority to hold interlocking positions, pursuant to section 305(b) of the Federal Power Act, 16 U.S.C. 825d (b) and Part 45.8 of the Federal Energy Regulatory Commission's (Commission) Rules of Practice and Procedure, 18 CFR part 45.8.

Any person desiring to intervene or to protest this filing must file in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211, 385.214). Protests will be considered by the Commission in determining the appropriate action to be taken but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a notice of intervention or motion to intervene, as appropriate. Such notices, motions, or protests must be filed on or before the comment date. On or before the comment date, it is not necessary to serve motions to intervene or protests on persons other than the Applicant.

In addition to publishing the full text of this document in the **Federal Register**, the Commission provides all interested persons an opportunity to view and/or print the contents of this document via the internet through the Commission's Home Page (*http://www.ferc.gov*) using the ''eLibrary'' link. Enter the docket number excluding the last three digits in the docket number field to access the document. At this time, the Commission has suspended access to the Commission's Public Reference Room, due to the proclamation declaring a National Emergency concerning the Novel Coronavirus Disease (COVID–19), issued by the President on March 13, 2020. For assistance, contact the Federal Energy Regulatory Commission at *FERCOnlineSupport@ferc.gov* or call toll-free, (886) 208–3676 or TYY, (202) 502–8659.

The Commission strongly encourages electronic filings of comments, protests and interventions in lieu of paper using the ''eFiling'' link at *http://www.ferc.gov.* Persons unable to file electronically may mail similar pleadings to the Federal Energy Regulatory Commission, 888 First Street NE, Washington, DC 20426. Hand delivered submissions in docketed proceedings should be delivered to Health and Human Services, 12225 Wilkins Avenue, Rockville, Maryland 20852.

Comment Date: 5:00 p.m. Eastern Time on March 4, 2022.

Dated: February 15, 2022.

Kimberly D. Bose,

Secretary.

[FR Doc. 2022–03696 Filed 2–18–22; 8:45 am]

BILLING CODE 6717–01–P

DEPARTMENT OF ENERGY

Federal Energy Regulatory Commission

[Docket No. ID–6672–004]

Fisfis, David T.; Notice of Filing

Take notice that on February 11, 2022, David T. Fisfis submitted for filing, application for authority to hold interlocking positions, pursuant to section 305(b) of the Federal Power Act, 16 U.S.C. 825d (b) and Part 45.8 of the Federal Energy Regulatory Commission's (Commission) Rules of Practice and Procedure, 18 CFR part 45.8.

Any person desiring to intervene or to protest this filing must file in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211, 385.214). Protests will be considered by the Commission in determining the appropriate action to be taken but will not serve to make protestants parties to the proceeding. Any person wishing to become a party must file a notice of intervention or motion to intervene, as appropriate. Such notices, motions, or protests must be filed on or before the comment date. On or before the comment date, it is not necessary to serve motions to intervene or protests on persons other than the Applicant.

In addition to publishing the full text of this document in the **Federal Register**, the Commission provides all interested persons an opportunity to view and/or print the contents of this document via the internet through the Commission's Home Page (*http://www.ferc.gov*) using the ''eLibrary'' link. Enter the docket number excluding the last three digits in the docket number field to access the document. At this time, the Commission has suspended access to the Commission's Public Reference Room, due to the proclamation declaring a National Emergency concerning the Novel Coronavirus Disease (COVID–19), issued by the President on March 13, 2020. For assistance, contact the Federal Energy Regulatory Commission at *FERCOnlineSupport@ferc.gov* or call toll-free, (886) 208–3676 or TYY, (202) 502–8659.

The Commission strongly encourages electronic filings of comments, protests and interventions in lieu of paper using the ''eFiling'' link at *http://www.ferc.gov.* Persons unable to file electronically may mail similar pleadings to the Federal Energy Regulatory Commission, 888 First Street NE, Washington, DC 20426. Hand delivered submissions in docketed proceedings should be delivered to Health and Human Services, 12225 Wilkins Avenue, Rockville, Maryland 20852.

Comment Date: 5:00 p.m. Eastern Time on March 4, 2022.

Dated: February 15, 2022.

Kimberly D. Bose,

Secretary.

[FR Doc. 2022–03692 Filed 2–18–22; 8:45 am]

BILLING CODE 6717–01–P

FEDERAL COMMUNICATIONS COMMISSION

[OMB 3060–1122; FR ID 71746]

Information Collection Being Submitted for Review and Approval to Office of Management and Budget

AGENCY: Federal Communications Commission.

ACTION: Notice and request for comments.

SUMMARY: As part of its continuing effort to reduce paperwork burdens, as required by the Paperwork Reduction Act (PRA) of 1995, the Federal Communications Commission (FCC or the Commission) invites the general public and other Federal Agencies to take this opportunity to comment on the following information collection. Pursuant to the Small Business Paperwork Relief Act of 2002, the FCC seeks specific comment on how it might ''further reduce the information collection burden for small business concerns with fewer than 25 employees.'' The Commission may not conduct or sponsor a collection of information unless it displays a currently valid Office of Management and Budget (OMB) control number. No person shall be subject to any penalty for failing to comply with a collection of information subject to the PRA that does not display a valid OMB control number.

DATES: Written comments and recommendations for the proposed information collection should be submitted on or before March 24, 2022.

ADDRESSES: Comments should be sent to *www.reginfo.gov/public/do/PRAMain.* Find this particular information collection by selecting ''Currently under 30-day Review—Open for Public Comments'' or by using the search function. Your comment must be submitted into *www.reginfo.gov* per the above instructions for it to be considered. In addition to submitting in *www.reginfo.gov* also send a copy of your comment on the proposed information collection to Nicole Ongele, FCC, via email to *PRA@fcc.gov* and to *Nicole.Ongele@fcc.gov.* Include in the comments the OMB control number as shown in the **SUPPLEMENTARY INFORMATION** below.

FOR FURTHER INFORMATION CONTACT: For additional information or copies of the information collection, contact Nicole Ongele at (202) 418–2991. To view a copy of this information collection request (ICR) submitted to OMB: (1) Go to the web page *http://www.reginfo.gov/public/do/PRAMain,* (2) look for the section of the web page called ''Currently Under Review,'' (3) click on the downward-pointing arrow in the ''Select Agency'' box below the ''Currently Under Review'' heading, (4) select ''Federal Communications Commission'' from the list of agencies presented in the ''Select Agency'' box, (5) click the ''Submit'' button to the right of the ''Select Agency'' box, (6) when the list of FCC ICRs currently under review appears, look for the Title of this ICR and then click on the ICR Reference Number. A copy of the FCC submission to OMB will be displayed.

SUPPLEMENTARY INFORMATION: As part of its continuing effort to reduce paperwork burdens, as required by the Paperwork Reduction Act (PRA) of 1995 (44 U.S.C. 3501–3520), the FCC invited the general public and other Federal Agencies to take this opportunity to comment on the following information collection. Comments are requested concerning: (a) Whether the proposed collection of information is necessary for the proper performance of the functions of the Commission, including whether the information shall have practical utility; (b) the accuracy of the Commission's burden estimates; (c) ways to enhance the quality, utility, and clarity of the information collected; and (d) ways to minimize the burden of the collection of information on the respondents, including the use of automated collection techniques or other forms of information technology. Pursuant to the Small Business Paperwork Relief Act of 2002, Public Law 107–198, see 44 U.S.C. 3506(c)(4), the FCC seeks specific comment on how it might ''further reduce the information collection burden for small business concerns with fewer than 25 employees.''

OMB Control Number: 3060–1122.

Title: Preparation of Annual Reports to Congress for the Collection and Expenditure of Fees or Charges for Enhanced 911 (E911) Services under the NET 911 Improvement Act of 2008.

Form Number: Not applicable.

Type of Review: Revision of a currently approved collection.

Respondents: State, Local, and Tribal governments.

Number of Respondents and Responses: 66 Respondents; 66 Responses.

Estimated Time per Response: 55 hours.

Frequency of Response: Annual and one-time reporting requirement.

Obligation to Respond: Voluntary. Statutory authority for this information collection is contained in New and Emerging Technologies 911 Improvement Act of 2008, Public Law 110–283, 122 Stat. 2620 (2008) (NET 911 Act), and the Consolidated Appropriations Act, 2021, Public Law 116–260, Division FF, Title IX, Section 902, Don't Break Up the T-Band Act of 2020 (section 902).

Total Annual Burden: 3,630 hours.

Total Annual Cost: No Cost.

Privacy Act Impact Assessment: No Impact(s).

Nature and Extent of Confidentiality: There is no need for confidentiality.

Needs and Uses: The Federal Communications Commission (Commission) is directed by statute (New and Emerging Technologies 911 Improvement Act of 2008, Public Law 110–283, 122 Stat. 2620 (2008) (NET 911 Act), as amended by the Consolidated Appropriations Act, 2021, Public Law 116–260, Division FF, Title IX, Section 902, Don't Break Up the T-Band Act of 2020 (section 902), to submit an annual ''Fee Accountability Report'' to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Energy and Commerce of the House of Representatives ''detailing the status in each State of the collection and distribution of [911 fees or charges], and including findings on the amount of revenues obligated or expended by each State or political subdivision thereof for any purpose or function other than the purposes and functions designated in the final rules issued under paragraph (3) as purposes and functions for which the obligation or expenditure of any such fees or charges is acceptable.'' 47 U.S.C. 615a–1(f)(2), as amended. Section 615a–1(f)(3) of the statute directs the Commission, not later than 180 days after December 27, 2020, to ''issue final rules designating purposes and functions for which the obligation or expenditure of 9–1–1 fees or charges, by any State or taxing jurisdiction authorized to impose such a fee or charge, is acceptable.'' 47 U.S.C. 615a–1(f)(3), as amended. The statute directs the Commission to submit its first annual report within one year after the date of enactment of the NET 911 Act. Given that the NET 911 Act was enacted on July 23, 2008, the first annual report was due to Congress on July 22, 2009. In addition, the statute provides that ''[i]f a State or taxing jurisdiction . . . receives a grant under section 942 of this title after December 27, 2020, such State or taxing jurisdiction shall, as a condition of receiving such grant, provide the information requested by the Commission to prepare [the annual Fee Accountability Report to Congress].'' 47 U.S.C. 615a–1(f)(4), as amended.

Description of Information Collection: The Commission will collect information for the annual preparation of the Fee Accountability Report via a web-based survey that appropriate state officials (*e.g.,* state 911 administrators and budget officials) will be able to access to submit data pertaining to the collection and distribution of fees or charges for the support or implementation of 911 or enhanced 911 services, including data regarding whether their respective state collects and distributes such fees or charges, as well as the nature (*e.g.,* amount and method of assessment or collection) and the amount of revenues obligated or expended for any purpose or function other than the purposes and functions designated as acceptable in the Commission's final rules. Consistent with 47 U.S.C. 615a–1(f)(3)(D)(iii), the Commission will request that state officials report this information with respect to 911 fees or charges within their state, including any political subdivision, Indian tribe, and/or village or regional corporation serving any region established pursuant to the Alaska Native Claims Settlement Act within their state boundaries. 47 U.S.C. 615a–1(f)(3)(D)(iii). In addition, consistent with the definition of ''State'' set out in 47 U.S.C. 615b, the Commission will collect this information from the District of Columbia and the inhabited U.S. territories and possessions. 47 U.S.C. 615b.

Federal Communications Commission.

Marlene Dortch,

Secretary, Office of the Secretary.

[FR Doc. 2022–03615 Filed 2–18–22; 8:45 am]

BILLING CODE 6712–01–P

FEDERAL COMMUNICATIONS COMMISSION

[FR ID 72202]

Open Commission Meeting Friday, February 18, 2022

FEBRUARY 11, 2022. The Federal Communications Commission will hold an Open Meeting on the subjects listed below on Friday, February 18, which is scheduled to commence at 10:30 a.m.

Due to the current COVID–19 pandemic and related agency telework and headquarters access policies, this meeting will be in a wholly electronic format and will be open to the public on the internet via live feed from the FCC's web page at *www.fcc.gov/live* and on the FCC's YouTube channel.

Item No.	Bureau	Subject
1	WIRELINE COMPETITION	*Title:* Promoting Telehealth in Rural America (WC Docket No. 17–310). *Summary:* The Commission will consider a Further Notice of Proposed Rulemaking that would seek comment on reforms to the urban and rural rates determination process for the Rural Health Care Program's Telecommunications Program, revisions to Rural Health Care Program rules governing the internal funding cap on upfront payments and multi-year contracts, and modifications to the Rural Health Care Program invoicing procedures.
2	WIRELINE COMPETITION	*Title:* Aureon Refund Data Order (WC Docket No. 18–60). *Summary:* The Commission will consider an Order requiring Iowa Network Access Division (d/b/a Aureon) to file cost and demand data to enable Commission staff to calculate appropriate refunds due to Aureon's customers after two investigations into Aureon's tariffed switched transport rate.
3	MEDIA	*Title:* Updating Technical Rules for Radio Broadcasters (MB Docket No. 21–263). *Summary:* The Commission will consider a Report and Order to eliminate or amend outmoded or unnecessary broadcast technical rules.
4	ENFORCEMENT	*Title:* Enforcement Bureau Action. *Summary:* The Commission will consider an enforcement action.

The meeting will be webcast with open captioning at: *www.fcc.gov/live.* Open captioning will be provided as well as a text only version on the FCC website. Other reasonable accommodations for people with disabilities are available upon request. In your request, include a description of the accommodation you will need and a way we can contact you if we need more information. Last minute requests will be accepted but may be impossible to fill. Send an email to: *fcc504@fcc.gov* or call the Consumer & Governmental Affairs Bureau at 202–418–0530.

Additional information concerning this meeting may be obtained from the Office of Media Relations, (202) 418–0500. Audio/Video coverage of the meeting will be broadcast live with open captioning over the internet from the FCC Live web page at *www.fcc.gov/live.*

Marlene Dortch,

Secretary.

[FR Doc. 2022–03646 Filed 2–18–22; 8:45 am]

BILLING CODE 6712–01–P

FEDERAL COMMUNICATIONS COMMISSION

[OMB 3060–1078; FR ID 71187]

Information Collection Being Reviewed by the Federal Communications Commission

AGENCY: Federal Communications Commission.

ACTION: Notice and request for comments.

SUMMARY: As part of its continuing effort to reduce paperwork burdens, and as required by the Paperwork Reduction Act (PRA) of 1995, the Federal Communications Commission (FCC or Commission) invites the general public

and other Federal agencies to take this opportunity to comment on the following information collections. Comments are requested concerning: Whether the proposed collection of information is necessary for the proper performance of the functions of the Commission, including whether the information shall have practical utility; the accuracy of the Commission's burden estimate; ways to enhance the quality, utility, and clarity of the information collected; ways to minimize the burden of the collection of information on the respondents, including the use of automated collection techniques or other forms of information technology; and ways to further reduce the information collection burden on small business concerns with fewer than 25 employees.

The FCC may not conduct or sponsor a collection of information unless it displays a currently valid OMB control number. No person shall be subject to any penalty for failing to comply with a collection of information subject to the PRA that does not display a valid OMB control number.

DATES: Written PRA comments should be submitted on or before April 25, 2022. If you anticipate that you will be submitting comments but find it difficult to do so within the period of time allowed by this notice, you should advise the contact listed below as soon as possible.

ADDRESSES: Direct all PRA comments to Cathy Williams, FCC, via email to *PRA@fcc.gov* and to *Cathy.Williams@fcc.gov.*

FOR FURTHER INFORMATION CONTACT: For additional information about the information collection, contact Cathy Williams at (202) 418–2918.

SUPPLEMENTARY INFORMATION:

OMB Control Number: 3060–1078.

Title: Rules and Regulations Implementing the Controlling the Assault of Non-Solicited Pornography and Marketing Act of 2003, CG Docket No. 04–53.

Form Number: N/A.

Type of Review: Extension of a currently approved collection.

Respondents: Business or other for-profit entities; Not-for-profit institutions; Individuals or households.

Number of Respondents and Responses: 1,908,572 respondents; 1,908,572 responses.

Estimated Time per Response: 1—10 hours (average per response).

Frequency of Response: Recordkeeping requirement; On occasion reporting requirements; Third party disclosure requirement.

Obligation to Respond: Required to obtain or retain benefits. The statutory authority for this information collection is the CAN–SPAM Act of 2003, 15 U.S.C. 7701–7713, Public Law 108–187, 117 Stat. 2719.

Total Annual Burden: 1,237,036 hours.

Total Annual Cost: $624,882.

Needs and Uses: The reporting requirements included under this OMB Control Number 3060–1078 enable the Commission to collect information regarding violations of the Controlling the Assault of Non-Solicited Pornography and Marketing Act of 2003 (CAN–SPAM Act). This information is used to help wireless subscribers stop receiving unwanted commercial mobile services messages.

On August 12, 2004, the Commission released an *Order,* Rules and Regulations Implementing the Controlling the Assault of Non-Solicited Pornography and Marketing Act of 2003, CG Docket No. 04–53, FCC 04–194, published at 69 FR 55765, September 16, 2004, adopting rules to prohibit the sending of commercial messages to any address referencing an internet domain name associated with wireless subscribers' messaging services, unless the individual addressee has given the sender express prior authorization. The information collection requirements consist § 64.3100 (a)(4), (d), (e) and (f) of the Commission's rules.

Federal Communications Commission.

Marlene Dortch,

Secretary, Office of the Secretary.

[FR Doc. 2022–03617 Filed 2–18–22; 8:45 am]

BILLING CODE 6712–01–P

FEDERAL MARITIME COMMISSION

National Shipper Advisory Committee March 2022 Meeting

AGENCY: Federal Maritime Commission.

ACTION: Notice of Federal Advisory Committee meeting

SUMMARY: Notice is hereby given of a meeting of the National Shipper Advisory Commission (NSAC), pursuant to the Federal Advisory Committee Act.

DATES: The Committee will meet by video conference on March 9, 2022, from 1 p.m. until 3 p.m. Eastern Time. Please note that this meeting may adjourn early if the Committee has completed its business.

ADDRESSES: The meeting will be held via video conference. The link will be provided by email to registrants in advance. Requests to register should be submitted to *nsac@fmc.gov* and contain ''REGISTER FOR NSAC MEETING'' in the subject line. The deadline for members of the public to register to attend the meeting is by 5:00 p.m. Eastern Time on Friday, March 4. Members of the public are encouraged to submit registration requests via email in advance of the deadline. The number of lines may be limited and will be available on a first-come, first-served basis. If you have accessibility concerns and require assistance, contact *secretary@fmc.gov.*

FOR FURTHER INFORMATION CONTACT: Mr. Dylan Richmond, Designated Federal Officer of the National Shipper Advisory Committee, phone: (202) 523–5810; email: *drichmond@fmc.gov.*

SUPPLEMENTARY INFORMATION:

Background: The National Shipper Advisory Committee is a federal advisory committee. It operates under the provisions of the Federal Advisory Committee Act, 5 U.S.C. App., and 46 U.S.C. chapter 425. The Committee was established on January 1, 2021, when the National Defense Authorization Act for Fiscal Year 2021 became law. Public Law 116–283, section 8604, 134 Stat. 3388 (2021). The Committee will provide information, insight, and expertise pertaining to conditions in the ocean freight delivery system to the Commission. Specifically, the Committee will advise the Federal Maritime Commission on policies relating to the competitiveness, reliability, integrity, and fairness of the international ocean freight delivery system. 46 U.S.C. 42502(b).

The purpose of the meeting is for the Committee to hear from its subcommittees that were established at its December 2021 meeting. One subcommittee focuses on data sharing and visibility and the other on fees and surcharges.

Written Comments: Members of the public may submit written comments to NSAC at any time. Comments would be most useful to the Committee if they address the objectives outlined in their charter or the above-mentioned topics. Comments should be addressed to NSAC, c/o Dylan Richmond, Federal Maritime Commission, 800 North Capitol St. NW, Washington, DC 20573 or *nsac@fmc.gov.*

A copy of all meeting documentation will be available at *www.fmc.gov* following the meeting.

By the Commission.

William Cody,

Secretary.

[FR Doc. 2022–03673 Filed 2–18–22; 8:45 am]

BILLING CODE 6730–02–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Agency for Toxic Substances and Disease Registry

[Docket No. ATSDR–2022–0001]

Availability of Six Draft Toxicological Profiles

AGENCY: Agency for Toxic Substances and Disease Registry (ATSDR), Department of Health and Human Services (HHS).

ACTION: Notice with comment period.

SUMMARY: The Agency for Toxic Substances and Disease Registry (ATSDR), within the Department of Health and Human Services (HHS), announces the opening of a docket to obtain comments on drafts of six updated toxicological profiles: Beryllium, Chloromethane, 1,2-Dichloroethane, Methyl tert-butyl ether (MTBE), N-Nitrosodimethylamine, and Chlorodibenzofurans.

DATES: Written comments must be received on or before May 23, 2022.

ADDRESSES: You may submit comments, identified by Docket Number ATSDR–2022–0001, by either of the following methods:

- *Federal eRulemaking Portal: www.regulations.gov.* Follow the instructions for submitting comments.
- *Mail:* Office of Innovation and Analytics, Agency for Toxic Substances and Disease Registry, 4770 Buford Highway, Mail Stop S102–1, Atlanta, GA 30341–3717. Attn: Docket No. ATSDR–2022–0001.

Instructions: All submissions must include the Agency name and Docket Number. All relevant comments received will be posted without change to *http://www.regulations.gov,* including any personal information provided. Do not submit comments by email. ATSDR does not accept comments by email. For access to the docket to read background documents or comments received, go to *http://www.regulations.gov.*

FOR FURTHER INFORMATION CONTACT: Kambria Haire, Office of Innovation and Analytics, Agency for Toxic Substances and Disease Registry, 4770 Buford Highway, Mail Stop S102–1, Atlanta, GA 30329–4027, Email: *ATSDRToxProfileFRNs@cdc.gov;* Telephone: 1–800–232–4636.

SUPPLEMENTARY INFORMATION: ATSDR has prepared drafts of six updated toxicological profiles based on availability of new health effects and other information since their initial releases. All toxicological profiles issued as ''Drafts for Public Comment'' represent the result of ATSDR's evidence-based evaluations to provide important toxicological information on priority hazardous substances to the public and health professionals. ATSDR is seeking public comments and additional information or reports on studies about the health effects of these six substances for review and potential inclusion in the profiles. ATSDR considers key studies for these substances during the profile development process. This notice solicits any relevant, additional studies. ATSDR will evaluate the quality and relevance of such data or studies for possible inclusion in the profile.

Public Participation

Interested persons or organizations are invited to participate by submitting written views, information, and data. Comments received, including attachments and other supporting materials, are part of the public record and are subject to public disclosure. Comments will be posted on *https://www.regulations.gov.* Therefore, do not include any information in your comment or supporting materials that you consider confidential or inappropriate for public disclosure. If you include your name, contact information, or other information that identifies you in the body of your comments, that information will be on public display. Do not submit comments by email. ATSDR does not accept comments by email. ATSDR will review all submissions and may choose to redact or withhold submissions containing private or proprietary information such as Social Security numbers, medical information, inappropriate language, or duplicate/near duplicate examples of a mass-mail campaign. ATSDR will carefully review and consider all comments submitted in preparation of the Final Toxicological Profiles and may revise the profiles as appropriate.

Legislative Background

The Superfund Amendments and Reauthorization Act of 1986 (SARA) [42 U.S.C. 9601 *et seq.*] amended the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA or Superfund) [42 U.S.C. 9601 *et seq.*] by establishing certain requirements for ATSDR and the U.S. Environmental Protection Agency (EPA) regarding the hazardous substances most commonly found at facilities on the CERCLA National Priorities List. Among these statutory requirements is a mandate for the Administrator of ATSDR to prepare toxicological profiles for each substance included on the priority list of hazardous substances [also called the Substance Priority List (SPL)]. This list identifies 275 hazardous substances that ATSDR and EPA have determined pose the most significant potential threat to human health. The SPL is available online at *www.atsdr.cdc.gov/spl.* ATSDR is also mandated to revise and publish updated toxicological profiles, as necessary, to reflect updated health effects and other information.

In addition, CERCLA provides ATSDR with the authority to prepare toxicological profiles for substances not found on the SPL. CERCLA authorizes ATSDR to establish and maintain an inventory of literature, research, and studies on the health effects of toxic substances (CERCLA Section 104(i)(1)(B); 42 U.S.C. 9604(i)(1)(B)); to respond to requests for health consultations (CERCLA Section 104(i)(4); 42 U.S.C. 9604(i)(4)); and to support the site-specific response actions conducted by the agency (CERCLA Section 104(i)(6); 42 U.S.C. 9604(i)(6)). Public nominations for substances from the SPL (or other substances) for toxicological profile development were requested on April 18, 2018 (83 FR 17177).

ATSDR has now prepared drafts of six updated toxicological profiles based on availability of new health effects and other information since their initial release.

Availability

The Draft Toxicological Profiles are available online at *http://www.atsdr.cdc.gov/ToxProfiles* and at *www.regulations.gov,* Docket No. ATSDR–2022–0001.

Pamela Protzel Berman,

Associate Director, Office of Policy, Planning and Partnerships, Agency for Toxic Substances and Disease Registry.

[FR Doc. 2022–03624 Filed 2–18–22; 8:45 am]

BILLING CODE 4163–70–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Centers for Disease Control and Prevention

Notice of Award of a Single-Source Cooperative Agreement To Fund Servicos Provinciais de Saúde de Inhambane (SPS Inhambane), Mozambique

AGENCY: Centers for Disease Control and Prevention (CDC), Department of Health and Human Services (HHS).

ACTION: Notice.

SUMMARY: The Centers for Disease Control and Prevention (CDC), located within the Department of Health and Human Services (HHS), announces the award of approximately $1,000,000 for Year 1 of funding to the Servicos Provinciais de Saúde de Inhambane (SPS Inhambane), Mozambique. The award will strengthen the institutional capacity of SPS Inhambane to plan, coordinate, and supervise HIV-related activities to contribute to accelerated progress towards the 95–95–95 goals (95% of HIV-positive individuals knowing their status, 95% of those receiving ART [Antiretroviral therapy], and 95% of those achieving viral suppression) and ensure sustainable control of the epidemic in Mozambique. Funding amounts for years 2–5 will be set at continuation.

DATES: The period for this award will be September 30, 2022 through September 29, 2027.

FOR FURTHER INFORMATION CONTACT: Meghan Duffy, Center for Global Health, Centers for Disease Control and Prevention, U.S. Embassy Maputo, Avenida Marginal nr 5467, Sommerschield, Distrito Municipal de KaMpfumo Caixa Postal 783 CEP 0101–11 Maputo, Moçambique, Telephone: 800–232–6348, E-Mail: *wwp2@cdc.gov*.

SUPPLEMENTARY INFORMATION: The single-source award will focus on building institutional capacity of the SPS in Inhambane for program development and planning and strengthening program implementation and oversight of activities related to HIV prevention, care, support, and treatment services funded by PEPFAR in Mozambique.

SPS Inhambane is in a unique position to conduct this work, as it is the sole organization tasked with ensuring the execution of health activities at the provincial level in Inhambane [Decree 26/2020]. In Mozambique, the governmental public health infrastructure is organized into the central or national entity of the Mozambique Ministry of Health/Ministério da Saúde (MOH/MISAU), the Provincial Health Directorates (DPSs) that implement activities at the primary healthcare level, and the Provincial Health Service (SPS) that lead all health services within the province of Inhambane. The SPSs in Mozambique are government organizations established by law and mandated to plan, coordinate, and supervise all health-related activities at the tertiary and secondary level, including HIV/AIDS activities, within their provincial jurisdiction.

Summary of the Award

Recipient: SPS Inhambane, Mozambique.

Purpose of the Award: The purpose of this award is to strengthen the institutional capacity of SPS Inhambane to plan, coordinate, and supervise HIV-related activities to contribute to accelerated progress towards the 95–95–95 goals and ensure sustainable control of the epidemic in Mozambique.

Amount of Award: The approximate year 1 funding amount will be $1,000,000 in Federal Fiscal Year (FFY) 2022 funds, subject to the availability of funds. Funding amounts for years 2–5 will be set at continuation.

Authority: This program is authorized under Public Law 108–25 (the United States Leadership Against HIV AIDS, Tuberculosis and Malaria Act of 2003).

Period of Performance: September 30, 2022 through September 29, 2027.

Dated: February 16, 2022.

Terrance Perry,

Chief Grants Management Officer, Centers for Disease Control and Prevention.

[FR Doc. 2022–03723 Filed 2–18–22; 8:45 am]

BILLING CODE 4163–18–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Centers for Disease Control and Prevention

Notice of Award of a Single-Source Cooperative Agreement To Fund Cote d'Ivoire Ministry of Health and Public Hygiene and Universal Health Coverage (MSHPCMU)

AGENCY: Centers for Disease Control and Prevention (CDC), Department of Health and Human Services (HHS).

ACTION: Notice.

SUMMARY: The Centers for Disease Control and Prevention (CDC), located within the Department of Health and Human Services (HHS) announces the award of approximately $3,000,000 for Year 1 of funding to the (MSHPCMU). The award will strengthen the capacities of the Ministry of Health (MOH) at the central and decentralized levels for HIV/TB infection control interventions. Funding amounts for years 2–5 will be set at continuation.

DATES: The period for this award will be September 30, 2022 through September 29, 2027.

FOR FURTHER INFORMATION CONTACT: Titania Techeira, Center for Global Health, Centers for Disease Control and Prevention, CDC Côte d'Ivoire, U.S. Embassy B.P. 730 Abidjan Cidex 03, Telephone: 800–232–6348, E-Mail: *iux2@cdc.gov*.

SUPPLEMENTARY INFORMATION: The single-source award will (1) Provide technical, programmatic, financial, and administrative support to the ministry departments for the implementation, coordination, mobilization, and supervision of key central-level prevention, care, and treatment activities; (2) Link and coordinate specific activities of various health ministry departments at the central and decentralized levels with related activities by other ministries in the multi-sectoral HIV/AIDS response; (3) Develop a sustainability plan which places an emphasis on national commitment to health and HIV/AIDS effort; (4) Plan, monitor, evaluate, and coordinate expanded service delivery of prevention of mother to child transmission (PMTCT), counseling and testing (CT); and anti-retroviral therapy (ART) in collaboration with the national HIV and TB program.

The MOH is the only eligible applicant that can apply for this funding opportunity because it is the sole public sector entity in Cote d'Ivoire mandated by the government to address the public's health needs. This mandate includes: (1) Coordination, monitoring and evaluation of comprehensive STI/TB and HIV prevention, and care and treatment services; (2) Coordination of HIV/AIDS interventions at decentralized levels of the health sector in Cote d'Ivoire; (3) Lead GoCI institution for strengthen the regulatory framework and promote hygiene to prevent diseases related to poor hospital hygiene; (4) Lead the GoCI in strengthening the SI management in the Ivorian national health sector response to HIV/AIDS; and Lead the GoCI for the development of the national M&E plan to monitor and evaluate the implementation of the activities and the results throughout the Ivoirian territory and at different levels of the health pyramid.

Summary of the Award

Recipient: MSHPCMU.

Purpose of the Award: The purpose of this award is to strengthen the capacities of the MOH at the central and decentralized levels for HIV/TB infection control interventions to: (1) Improve the coordination of HIV/AIDS control interventions at the decentralized levels of the health sector; (2) Strengthen the regulatory framework and promote hygiene to prevent HIV infection and healthcare-related infections; and Strengthen the management of SI for the health sector national response.

Amount of Award: The approximate year 1 funding amount will be $3,000,000 in Federal Fiscal Year (FYY) 2022 funds, subject to the availability of funds. Funding amounts for years 2–5 will be set at continuation.

Authority: Public Law 108–25 (the United States Leadership Against HIV AIDS, Tuberculosis and Malaria Act of 2003).

Period of Performance: September 30, 2022 through September 29, 2027.

Dated: February 15, 2022.

Terrance Perry,

Chief Grants Management Officer, Centers for Disease Control and Prevention.

[FR Doc. 2022–03631 Filed 2–18–22; 8:45 am]

BILLING CODE 4163–18–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Centers for Disease Control and Prevention

[30Day–22–21HD]

Agency Forms Undergoing Paperwork Reduction Act Review

In accordance with the Paperwork Reduction Act of 1995, the Centers for Disease Control and Prevention (CDC) has submitted the information collection request titled the ''One Health Surveillance for Zoonotic SARS–CoV–2 Events'' to the Office of Management and Budget (OMB) for review and approval. CDC previously published a ''Proposed Data Collection Submitted for Public Comment and Recommendations'' notice on August 13, 2021 to obtain comments from the public and affected agencies. CDC received one comment related to the previous notice. This notice serves to allow an additional 30 days for public and affected agency comments.

CDC will accept all comments for this proposed information collection project. The Office of Management and Budget is particularly interested in comments that:

(a) Evaluate whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility;

(b) Evaluate the accuracy of the agencies estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used;

(c) Enhance the quality, utility, and clarity of the information to be collected;

(d) Minimize the burden of the collection of information on those who are to respond, including, through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, *e.g.,* permitting electronic submission of responses; and

(e) Assess information collection costs.

To request additional information on the proposed project or to obtain a copy of the information collection plan and instruments, call (404) 639–7570. Comments and recommendations for the proposed information collection should be sent within 30 days of publication of this notice to *www.reginfo.gov/public/do/PRAMain.* Find this particular information collection by selecting ''Currently under 30-day Review—Open for Public Comments'' or by using the search function. Direct written comments and/or suggestions regarding the items contained in this notice to the Attention: CDC Desk Officer, Office of Management and Budget, 725 17th Street NW, Washington, DC 20503 or by fax to (202) 395–5806. Provide written comments within 30 days of notice publication.

Proposed Project

One Health Surveillance for Zoonotic SARS–CoV–2 Events—New—National Center for Emerging and Zoonotic Infectious Diseases (NCEZID), Centers for Disease Control and Prevention (CDC).

Background and Brief Description

NCEZID seeks OMB approval for One Health Surveillance for Zoonotic SARS–CoV–2 Events through the use of two forms: One Health Case Investigation Form for Animals with SARS–CoV–2, and Zoonotic SARS–CoV–2 Event Form. Description of these forms and activities associated with this study, including burden to respondents can be found below.

Zoonotic SARS–CoV–2 Event Form: Although it is now well established that SARS–CoV–2 is a zoonotic virus (*i.e.,* can be spread between people and animals), little information exists on the prevalence or likelihood of zoonotic transmission events. Currently, reporting of zoonotic SARS–CoV–2 transmission events is not systematically reported. Without this crucial information, however, interpreting data on SARS–CoV–2 infection in animals, especially the overall contribution of zoonotic transmission to the spread of COVID–19, is incomplete. The information gathered using this surveillance mechanism will provide insight into the role of animals in SARS–CoV–2 transmission and will also provide context for understanding prevalence of linked human and animal infections throughout the nation.

Positive SARS–CoV–2 animal samples must be confirmed by United States Department of Agriculture (USDA) National Veterinary Services Lab (NVSL); however, without the proposed surveillance mechanism, data on linked human and animal transmission events which yield negative results would not be tracked at the national level. CDC and USDA guidance recommends state-level health authorities, namely state public health veterinarians and state animal health officials, are involved in approving and coordinating animal SARS–CoV–2 testing. These officials are therefore the primary target audience for this surveillance form, in addition to tribal, local and territorial health authorities. The Zoonotic SARS–CoV–2 Event form includes questions intended to improve our understanding of the number of cases state officials are asked to consult upon regarding SARS–CoV–2 testing for potential zoonotic transmission events, the proportion of those events that are tested for SARS–CoV–2, and corresponding relevant epidemiological data (epidemiological links to other cases of SARS–CoV–2 in people or animals, clinical signs, etc.), results, etc. This form will fill a needed gap over the next three years.

In addition to the primary reason for the Zooonotic SARS–CoV–2 Event form, it will also be used to replace paper-based reporting for CDC-funded research. Currently, CDC's One Health Office has funded surveillance and research at sites throughout the nation. This surveillance form will be used to report all linked human and animal testing for SARS–CoV–2 to CDC that is occurring through funded surveillance activities, including the status and circumstances for testing. This will relieve the requirement for less secure reporting such as paper-based reporting forms sent through email.

More broadly, we expect this form may be generalized in the future to encapsulate surveillance for other zoonotic respiratory viruses. This surveillance form therefore offers the opportunity to test and iterate upon surveillance mechanisms prior to the advancement of a broader surveillance system.

One Health Case Investigation Form for Animals with SARS–CoV–2: Currently, most animal samples that test positive for SARS–CoV–2 are confirmed by USDA NVSL, and are reported to the World Organization for Animal Health (OIE). However, the information collected is largely restricted to

information on the animal case, including animal species, number of affected animals, and clinical signs. Richer epidemiological data, including the routes that animals become exposed to SARS–CoV–2 and potential transmission events back to people, are needed to better understand the zoonotic potential of SARS–CoV–2, whether transmission is becoming sustained among animal populations, and the public health risks that infected animals may pose. Through this data collection tool, state and local public health and animal health officials will be able to use a standardized approach to collect epidemiological data while conducting One Health epidemiologic investigations over the tool's expected reporting lifespan of three years.

CDC and USDA guidance recommends state-level health authorities, namely state public health veterinarians and state animal health officials, conduct follow-up investigations if and when an animal is identified as positive for SARS–CoV–2. These officials, in addition to other state, tribal, local, and territorial (STLT) collaborators conducting research or surveillance within their jurisdiction are therefore an appropriate target audience for this surveillance form. This form involves voluntary reporting from STLT health officials conducting epidemiological investigations to enter case information and return it to CDC. This tool was designed by CDC staff at the request of STLT partners.

These data will be used to describe the transmission dynamics and natural history of SARS–CoV–2 infection. Specifically, this tool will assist in collecting and compiling data to better understand the zoonotic potential of SARS–CoV–2 from humans or other sources, and the role animals infected with SARS–CoV–2 may play in onward transmission to humans or other animals.

CDC requests approval for an estimated 9,000 annual burden hours for this collection. There are no costs to respondents other than their time to participate.

ESTIMATED ANNUALIZED BURDEN HOURS

Type of respondents	Form name	Number of respondents	Number of responses per respondent	Average burden per response (hours)
State, tribal, local, and territorial health officials.	One Health Case Investigation Form for Animals with SARS–CoV–2.	50	20	1
State, tribal, local, and territorial health officials.	One Health Consultation Form	80	400	15/60

Jeffrey M. Zirger,

Lead,Information Collection Review Office,Office of Scientific Integrity,Office of Science,Centers for Disease Control and Prevention.

[FR Doc. 2022–03708 Filed 2–18–22; 8:45 am]

BILLING CODE 4163–18–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Centers for Disease Control and Prevention

Notice of Award of a Single-Source Cooperative Agreement To Fund the Eastern Cape Department of Health, South Africa

AGENCY: Centers for Disease Control and Prevention (CDC), Department of Health and Human Services (HHS).

ACTION: Notice.

SUMMARY: The Centers for Disease Control and Prevention (CDC), located within the Department of Health and Human Services (HHS), announces the award of approximately $1,250,000 for Year 1 of funding to the Eastern Cape Department of Health, South Africa. The award will strengthen public health policy implementation, strengthen Human Resources for Health (HRH) management, improve supply chain management, and strengthen Strategic Information (SI) management for program planning in the Eastern Cape Province of South Africa. Funding amounts for years 2–5 will be set at continuation.

DATES: The period for this award will be September 30, 2022 through September 29, 2027.

FOR FURTHER INFORMATION CONTACT: Rayna Taback-Esra, Center for Global Health, Centers for Disease Control and Prevention, P.O. Box 9536, Pretoria, 0001, South Africa, Telephone: 800–232–6348, Email: *wxk7@cdc.gov.*

SUPPLEMENTARY INFORMATION: The single-source award will fund the Eastern Cape Department of Health to strengthen public health policy implementation, strengthen HRH management, improve supply chain management, and strengthen strategic information management for program planning. Strengthened health systems will support the faster adoption of implementation of key policies and lead to a more efficient HIV/TB program in the Eastern Cape Province of South Africa. The East Cape Department of Health South Africa is in a unique position to conduct this work as it is responsible for the management of the provincial health budget and delivery of all provincial health services.

Summary of the Award

Recipient: Eastern Cape Department of Health, South Africa.

Purpose of the Award: The purpose of this award is to support a more efficient HIV/TB program in the Eastern Cape Province through improved HRH management, enhanced supply chain management, and strengthened SI management.

Amount of Award: The approximate year 1 funding amount will be $1,250,000 in Federal Fiscal Year (FFY) 2022 funds, subject to the availability of funds. Funding amounts for years 2–5 will be set at continuation.

Authority: The program is authorized under Public Law 108–25 (the United States Leadership Against HIV AIDS, Tuberculosis and Malaria Act of 2003).

Period of Performance: September 30, 2022 through September 29, 2027.

Dated: February 15, 2022.

Terrance Perry,

Chief Grants Management Officer, Centers for Disease Control and Prevention.

[FR Doc. 2022–03720 Filed 2–18–22; 8:45 am]

BILLING CODE 4163–18–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Centers for Disease Control and Prevention

Notice of Award of a Single-Source Cooperative Agreement To Fund the Kazakhstan Scientific Center for Dermatology and Infectious Diseases (KSCDID)

AGENCY: Centers for Disease Control and Prevention (CDC), Department of Health and Human Services (HHS).

ACTION: Notice.

SUMMARY: The Centers for Disease Control and Prevention (CDC), located within the Department of Health and Human Services (HHS), announces the award of approximately $500,000, for Year 1 of funding to the Kazakhstan Scientific Center for Dermatology and Infectious Diseases (KSCDID). The award will reduce new HIV infections and AIDS deaths in Kazakhstan through rapidly expanding prevention, testing, care, and effective treatment services to people living with HIV (PLHIV). Funding amounts for years 2–5 will be set at continuation.

DATES: The period for this award will be September 30, 2022 through September 29, 2027.

FOR FURTHER INFORMATION CONTACT: Patrick Nadol, Center for Global Health, Centers for Disease Control and Prevention, 171 Prospect Mira, Bishkek, 720016, Kyrgyz Republic, Telephone: 800–232–6348, E-Mail: *pen5@cdc.gov.*

SUPPLEMENTARY INFORMATION: The single-source award will implement prevention, testing, care and treatment, laboratory, and strategic information activities in Kazakhstan. KSCDID is in a unique position to conduct this work, as it is the leading organization implementing the National HIV program in Kazakhstan; it will lead and sustain the national HIV services for prevention, testing, care, treatment, and strategic information according to international standards to achieve epidemic control and ensure resilient and sustained health care systems. KSCDID develops policy and regulations, conducts prevention and testing activities, coordinates care and treatment, and is responsible for quality assurance of laboratory services.

Summary of the Award

Recipient: Kazakhstan Scientific Center for Dermatology and Infectious Diseases (KSCDID).

Purpose of the Award: The purpose of this award is to reduce new HIV infections and AIDS deaths in Kazakhstan through rapidly expanding prevention, testing, care, and effective treatment services to PLHIV.

Amount of Award: The approximate year 1 funding amount will be $500,000 in Federal Fiscal Year (FFY) 2022 funds, subject to the availability of funds. Funding amounts for years 2–5 will be set at continuation.

Authority: This program is authorized under Public Law 108–25 (the United States Leadership Against HIV AIDS, Tuberculosis and Malaria Act of 2003).

Period of Performance: September 30, 2022 through September 29, 2027.

Dated: February 15, 2022.

Terrance Perry,

Chief Grants Management Officer, Centers for Disease Control and Prevention.

[FR Doc. 2022–03629 Filed 2–18–22; 8:45 am]

BILLING CODE 4163–18–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Centers for Disease Control and Prevention

[30Day–22–1268]

Agency Forms Undergoing Paperwork Reduction Act Review

In accordance with the Paperwork Reduction Act of 1995, the Centers for Disease Control and Prevention (CDC) has submitted the information collection request titled ''Drug Overdose Surveillance and Epidemiology (DOSE)'' to the Office of Management and Budget (OMB) for review and approval. CDC previously published a ''Proposed Data Collection Submitted for Public Comment and Recommendations'' notice on April 26, 2021, to obtain comments from the public and affected agencies. CDC received four comments related to the previous notice. This notice serves to allow an additional 30 days for public and affected agency comments.

CDC will accept all comments for this proposed information collection project. The Office of Management and Budget is particularly interested in comments that:

(a) Evaluate whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility;

(b) Evaluate the accuracy of the agencies estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used;

(c) Enhance the quality, utility, and clarity of the information to be collected;

(d) Minimize the burden of the collection of information on those who are to respond, including, through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, *e.g.,* permitting electronic submission of responses; and

(e) Assess information collection costs.

To request additional information on the proposed project or to obtain a copy of the information collection plan and instruments, call (404) 639–7570. Comments and recommendations for the proposed information collection should be sent within 30 days of publication of this notice to *www.reginfo.gov/public/do/PRAMain.* Find this particular information collection by selecting ''Currently under 30-day Review—Open for Public Comments'' or by using the search function. Direct written comments and/or suggestions regarding the items contained in this notice to the Attention: CDC Desk Officer, Office of Management and Budget, 725 17th Street NW, Washington, DC 20503 or by fax to (202) 395–5806. Provide written comments within 30 days of notice publication.

Proposed Project

Drug Overdose Surveillance and Epidemiology (DOSE) (OMB Control No. 0920–1268, Exp. 8/31/2022)—Revision—National Center for Injury Prevention and Control (NCIPC), Centers for Disease Control and Prevention (CDC).

Background and Brief Description

In 2020, a total of 91,799 drug overdose deaths occurred, corresponding to an age-adjusted rate of 28.3 per 100,000 population and a 31% increase from the 2019 rate (21.6). From 2013 to 2019, the synthetic opioid-involved death rate increased 1,040%, from 1.0 to 11.4 per 100,000 age-adjusted (3,105 to 36,359). The psychostimulant-involved death rate increased 317%, from 1.2 (3,627) in 2013 to 5.0 (16,167) in 2019. Non-fatal overdoses are on the rise as well; Emergency Department (ED) data from DOSE indicates increases from 2018 to present. In response to the growing severity of the opioid overdose epidemic, the U.S. government declared the opioid overdose epidemic a public health emergency on October 26, 2017. The opioid overdose epidemic is one of the top priorities of the U.S. Department of Health and Human Services (HHS). In

2021, HHS expanded their Overdose Prevention Strategy to focus on four strategic priorities: Primary prevention, harm reduction, evidence-based treatment, and recovery support.

DOSE is a critical element of HHS's first goal under primary prevention to support research and surveillance to collect timelier and more specific data through accelerating the speed at which CDC reports drug overdose data. DOSE data collection integrates, expands, and enhances previous data sharing efforts with public health departments initiated under ESOOS. The goal of DOSE is to conduct surveillance of approximately 75% of all ED visits for drug overdoses through the end of the Overdose Data to Action (OD2A) cooperative agreement in 2023. In 2019, OD2A provided funding for 66 jurisdictions; 47 states and the District of Columbia share data with DOSE. Though we had hoped to capture data from all 50 states and the District of Columbia, only 47 states and the District of Columbia applied for this funding announcement.

Currently, DOSE operates in the 47 states and the District of Columbia currently funded by OD2A (three states did not request CDC funding in the current cycle but may for the next funding cycle in 2023). Of these 48 health departments, 43 share syndromic data with CDC monthly and 26 share at least quarterly discharge data. A total of 33 health departments provide CDC with access to their syndromic surveillance data from EDs in CDC's National Syndromic Surveillance Program (NSSP) system. Access to this timely data has allowed us to improve the situational awareness of federal, state, and local health departments about emerging drug overdose outbreaks and the progression of the opioid overdose epidemic. Health departments have used this data to populate state data dashboards and develop alerts for local communities. In addition, health departments have used this data in concert with public safety partners to gain a better overall picture of outbreaks in their communities.

All data sharing between CDC and health departments in DOSE is driven by two standardized data forms, the Rapid ED overdose data form and the ED discharge overdose data form, and CDC cases definitions of drug, opioid, heroin, fentanyl, all stimulant, cocaine, methamphetamine, benzodiazepine, and other emerging drug overdoses. The Rapid ED Overdose Data Form will be submitted to CDC monthly. For 35 respondents, the estimated burden per response is 30 minutes. For 10 respondents, the estimated burden per response is three hours. The estimated burden per response for the ED Discharge Overdose Data Form is three hours. This form will be submitted four times per year by 28 respondents and once per year by 23 respondents. All information will be collected electronically. The total estimated annualized burden hours are 975.

ESTIMATED ANNUALIZED BURDEN HOURS

Type of respondent	Form name	Number of respondents	Number of responses per respondent	Average burden per response (hours)
Participating health departments sharing aggregate data from local syndromic or hospital discharge file.	Rapid ED overdose data form	10	12	3
Participating health departments sharing case-level ED data with CDC through the NSSP BioSense (OMB No. 0920–0824).	Rapid ED overdose data form	35	12	30/60
Participating health department sharing finalized hospital discharge data on a quarterly basis.	ED discharge overdose data form.	28	4	3
Participating health department sharing finalized hospital discharge data on a yearly basis.	ED discharge overdose data form.	23	1	3

Jeffrey M. Zirger,

Lead, Information Collection Review Office, Office of Scientific Integrity, Office of Science, Centers for Disease Control and Prevention.

[FR Doc. 2022–03709 Filed 2–18–22; 8:45 am]

BILLING CODE 4163–19–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Centers for Disease Control and Prevention

Notice of Award of a Single-Source Cooperative Agreement To Fund the Ho Chi Minh City Department of Health (HCMC DOH), Vietnam

AGENCY: Centers for Disease Control and Prevention (CDC), Department of Health and Human Services (HHS).

ACTION: Notice.

SUMMARY: The Centers for Disease Control and Prevention (CDC), located within the Department of Health and Human Services (HHS), announces the award of approximately $2,000,000 for Year 1 of funding to the Ho Chi Minh City Department of Health (HCMC DOH). The award will strengthen the capacity of the HCMC DOH to provide sustainable evidence-based effective HIV prevention, care and treatment services. As Ho Chi Minh City contributes to 22.6% of the HIV burden, HCMC DOH remains critical to the success of HIV program in Vietnam. This NOFO will contribute directly to the national HIV prevention, care and treatment goals by supporting direct services and will support long-term sustainability of the HIV response through capacity building and technical assistance (TA). Funding amounts for years 2–5 will be set at continuation.

DATES: The period for this award will be September 30, 2022 through September 29, 2027.

FOR FURTHER INFORMATION CONTACT: Amy Bailey, Center for Global Health, Centers for Disease Control and Prevention, 4 Le Duan, District 1, Ho Chi Minh City, Vietnam, Telephone: 800–232–6348, E-Mail: *fue8@cdc.gov.*

SUPPLEMENTARY INFORMATION: The single-source award will strengthen the capacity of the HCMC DOH to provide sustainable, evidence-based, effective HIV/AIDS prevention, care and treatment services.

HCMC DOH is in a unique position to conduct this work as it is mandated to advise and assist the City People's Committee in state management of health and in terms of legal authority and credibility among Vietnamese health institutions, to give direction, guide, coordinate and implement all public health including HIV/AIDS activities in HCMC. As Ho Chi Minh City (HCMC) contributes to 22.6% of the HIV burden, HCMC DOH remains critical to the success of HIV program in

Vietnam. This NOFO will contribute directly to the national HIV prevention, care, and treatment goals by supporting direct services and will support long-term sustainability of the HIV response through capacity building and TA.

Summary of the Award

Recipient: Ho Chi Minh City Department of Health (HCMC DOH).

Purpose of the Award: The purpose of this award is to strengthen the capacity of the HCMC DOH to provide sustainable evidence-based effective HIV prevention, care and treatment services.

Amount of Award: The approximate year 1 funding amount will be $2,000,000 in Federal Fiscal Year (FFY) 2022 funds, subject to the availability of funds. Funding amounts for years 2–5 will be set at continuation.

Authority: This program is authorized under Public Law 108–25 (the United States Leadership Against HIV AIDS, Tuberculosis and Malaria Act of 2003).

Period of Performance: September 30, 2022 through September 29, 2027.

Dated: February 15, 2022.

Terrance Perry,

Chief Grants Management Officer, Centers for Disease Control and Prevention.

[FR Doc. 2022–03628 Filed 2–18–22; 8:45 am]

BILLING CODE 4163–18–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Centers for Disease Control and Prevention

[60Day-22–22CR; Docket No. CDC–2022–0026]

Proposed Data Collection Submitted for Public Comment and Recommendations

AGENCY: Centers for Disease Control and Prevention (CDC), Department of Health and Human Services (HHS).

ACTION: Notice with comment period.

SUMMARY: The Centers for Disease Control and Prevention (CDC), as part of its continuing effort to reduce public burden and maximize the utility of government information, invites the general public and other federal agencies the opportunity to comment on a proposed and/or continuing information collection, as required by the Paperwork Reduction Act of 1995. This notice invites comment on a proposed information collection project titled Homeless Service Providers Knowledge, Attitudes, and Practices Regarding Body Lice, Fleas and Associated Diseases. This proposed study is designed to improve CDC's understanding of homeless service providers knowledge, attitudes, and practices regarding vector-borne diseases that can affect persons experiencing homelessness.

DATES: CDC must receive written comments on or before April 25, 2022.

ADDRESSES: You may submit comments, identified by Docket No. CDC–2022–0026, by either of the following methods:

- *Federal eRulemaking Portal: regulations.gov.* Follow the instructions for submitting comments.
- *Mail:* Jeffrey M. Zirger, Information Collection Review Office, Centers for Disease Control and Prevention, 1600 Clifton Road NE, MS H21–8, Atlanta, Georgia 30329.

Instructions: All submissions received must include the agency name and Docket Number. CDC will post, without change, all relevant comments to *regulations.gov.*

PLEASE NOTE: *Submit all comments through the Federal eRulemaking portal (regulations.gov) or by U.S. mail to the address listed above.*

FOR FURTHER INFORMATION CONTACT: To request more information on the proposed project or to obtain a copy of the information collection plan and instruments, contact Jeffrey M. Zirger, Information Collection Review Office, Centers for Disease Control and Prevention, 1600 Clifton Road NE, MS H21–8, Atlanta, Georgia 30329; phone: 404–639–7570; Email: *omb@cdc.gov.*

SUPPLEMENTARY INFORMATION: Under the Paperwork Reduction Act of 1995 (PRA) (44 U.S.C. 3501–3520), federal agencies must obtain approval from the Office of Management and Budget (OMB) for each collection of information they conduct or sponsor. In addition, the PRA also requires federal agencies to provide a 60-day notice in the **Federal Register** concerning each proposed collection of information, including each new proposed collection, each proposed extension of existing collection of information, and each reinstatement of previously approved information collection before submitting the collection to the OMB for approval. To comply with this requirement, we are publishing this notice of a proposed data collection as described below.

The OMB is particularly interested in comments that will help:

1. Evaluate whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility;

2. Evaluate the accuracy of the agency's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used;

3. Enhance the quality, utility, and clarity of the information to be collected;

4. Minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, *e.g.,* permitting electronic submissions of responses; and

5. Assess information collection costs.

Proposed Project

Homeless Service Providers Knowledge, Attitudes, and Practices Regarding Body Lice, Fleas and Associated Diseases—New—National Center for Emerging and Zoonotic Infectious Diseases (NCEZID), Centers for Disease Control and Prevention (CDC).

Background and Brief Description

This proposed information collection aims to improve CDC's understanding of homeless service providers knowledge, attitudes, and practices regarding vector-borne diseases that can affect persons experiencing homelessness (PEH). Insights gained from this information collection will be used to develop guidance for control of vector-borne diseases among PEH and to improve educational outreach regarding these diseases.

Several bacterial vector-borne diseases that are spread by body lice and fleas disproportionately affect PEH. Given the potential severity of louse- and flea-borne diseases, as well as their disproportionate impact on PEH, understanding the knowledge and gaps in knowledge of urban homeless service providers will allow for targeted education and interventions to reduce the risk of louse- and flea-borne disease among this vulnerable population. This investigation aims to gain insight about gaps in understanding, prevention, and intervention to inform tailored educational campaigns and intervention efforts to reduce risk of infestation with body lice and fleas and their associated diseases.

CDC requests OMB approval for an estimated 38 annual burden hours. There is no cost to respondents other than their time.

ESTIMATED ANNUALIZED BURDEN HOURS

Type of respondents	Form name	Number of respondents	Number of responses per respondent	Average burden per response (in hours)	Total burden (in hours)
Homeless Service Providers—Shelter Workers and Volunteers.	Knowledge, Attitudes, and Practices About Body Lice- and Flea-borne Diseases: Survey for Shelter Workers.	150	1	10/60	25
Homeless Service Providers—Street Outreach Team.	Knowledge, Attitudes, and Practices About Body Lice- and Flea-borne Diseases: Survey for Street/Outreach Workers.	50	1	10/60	9
Supervisor—Shelter	Site Assessment Form for Homeless Service Sites.	30	1	5/60	3
Supervisor—Street Outreach Teams.	Site Assessment Form for Street/Outreach Workers.	10	1	5/60	1
Total	.....	.....	.....	.....	38

Jeffrey M. Zirger,

Lead, Information Collection Review Office, Office of Scientific Integrity, Office of Science, Centers for Disease Control and Prevention.

[FR Doc. 2022–03710 Filed 2–18–22; 8:45 am]

BILLING CODE 4163–18–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Centers for Disease Control and Prevention

Notice of Award of a Single-Source Grant To Fund the International Agency for Research on Cancer

AGENCY: Centers for Disease Control and Prevention (CDC), Department of Health and Human Services (HHS).

ACTION: Notice.

SUMMARY: The Centers for Disease Control and Prevention (CDC), located within the Department of Health and Human Services (HHS), announces the award of approximately $200,000, with an expected total funding of approximately $1,000,000 over a five-year period to the International Agency for Research on Cancer (IARC). The award will support the IARC Handbooks on Cancer Prevention program which provide comprehensive reviews and consensus evaluations evidence on the effectiveness of preventive interventions that may reduce cancer incidence or mortality in the United States and other countries.

DATES: The period for this award will be July 1, 2022 through June 30, 2027.

FOR FURTHER INFORMATION CONTACT: Mary C. White, National Center for Chronic Disease Prevention and Health Promotion, Centers for Disease Control and Prevention, 4770 Buford Highway, MS S107–4, Atlanta, GA 30341, Telephone: 800–232–6348, Email: *MCWhite@cdc.gov.*

SUPPLEMENTARY INFORMATION: The single-source award will focus on evaluations of the evidence on the effectiveness of preventive interventions that may reduce cancer incidence or mortality in the United States and other countries.

IARC is uniquely qualified for this award because no other organization, within the United States or elsewhere, convenes internationally recognized experts to rigorously evaluate scientific evidence on the effectiveness of preventive interventions that may reduce cancer incidence or mortality.

IARC is the specialized cancer agency of the World Health Organization. To accomplish its mission, the IARC Handbooks on Cancer Prevention program provides definitive, independent evidence-based evaluations of cancer-preventive interventions.

The program was established more than 20 years ago to identify and assess which interventions can prevent cancer or detect cancer at an early stage, to reduce cancer cases worldwide and save lives. The handbooks are regarded as trustworthy sources of information by national and international health agencies around the world.

Summary of the Award

Recipient: The International Agency for Research on Cancer (IARC).

Purpose of the Award: The purpose of this award is to provide a five-year grant to the International Agency for Research on Cancer (IARC) to provide support for the IARC Handbooks on Cancer Prevention program and ensure its continuity over five years. The outcomes include: Expanded dissemination of information about effective strategies and interventions to reduce cancer risk; and expanded utilization of the IARC Handbooks evaluations among health agencies to develop evidence-based interventions or policy recommendations for reducing cancer risk at the population level.

Amount of Award: $200,000 in Federal Fiscal Year (FFY) 2022 funds, with a total estimated $1,000,000 for a five-year period of performance, subject to availability of funds.

Authority: Public Health Service Act, 42 U.S.C. 241(a) and 247b(k)(2).

Period of Performance: July 1, 2022 through June 30, 2027.

Dated: February 15, 2022.

Terrance Perry,

Chief Grants Management Officer, Centers for Disease Control and Prevention.

[FR Doc. 2022–03630 Filed 2–18–22; 8:45 am]

BILLING CODE 4163–18–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Centers for Medicare & Medicaid Services

[Document Identifier: CMS–10786, CMS–10792 and CMS–10575]

Agency Information Collection Activities: Submission for OMB Review; Comment Request

AGENCY: Centers for Medicare & Medicaid Services, Health and Human Services (HHS).

ACTION: Notice.

SUMMARY: The Centers for Medicare & Medicaid Services (CMS) is announcing an opportunity for the public to comment on CMS' intention to collect information from the public. Under the Paperwork Reduction Act of 1995 (PRA), federal agencies are required to publish notice in the **Federal Register** concerning each proposed collection of information, including each proposed extension or reinstatement of an existing collection of information, and to allow

a second opportunity for public comment on the notice. Interested persons are invited to send comments regarding the burden estimate or any other aspect of this collection of information, including the necessity and utility of the proposed information collection for the proper performance of the agency's functions, the accuracy of the estimated burden, ways to enhance the quality, utility, and clarity of the information to be collected, and the use of automated collection techniques or other forms of information technology to minimize the information collection burden.

DATES: Comments on the collection(s) of information must be received by the OMB desk officer by March 24, 2022.

ADDRESSES: Written comments and recommendations for the proposed information collection should be sent within 30 days of publication of this notice to *www.reginfo.gov/public/do/PRAMain*. Find this particular information collection by selecting ''Currently under 30-day Review—Open for Public Comments'' or by using the search function.

To obtain copies of a supporting statement and any related forms for the proposed collection(s) summarized in this notice, you may make your request using one of following:

1. Access CMS' website address at website address at: *https://www.cms.gov/Regulations-and-Guidance/Legislation/PaperworkReductionActof1995/PRA-Listing.html*.

FOR FURTHER INFORMATION CONTACT: William Parham at (410) 786–4669.

SUPPLEMENTARY INFORMATION: Under the Paperwork Reduction Act of 1995 (PRA) (44 U.S.C. 3501–3520), federal agencies must obtain approval from the Office of Management and Budget (OMB) for each collection of information they conduct or sponsor. The term ''collection of information'' is defined in 44 U.S.C. 3502(3) and 5 CFR 1320.3(c) and includes agency requests or requirements that members of the public submit reports, keep records, or provide information to a third party. Section 3506(c)(2)(A) of the PRA (44 U.S.C. 3506(c)(2)(A)) requires federal agencies to publish a 30-day notice in the **Federal Register** concerning each proposed collection of information, including each proposed extension or reinstatement of an existing collection of information, before submitting the collection to OMB for approval. To comply with this requirement, CMS is publishing this notice that summarizes the following proposed collection(s) of information for public comment:

1. *Type of Information Collection Request:* New collection (Request for a new OMB Control Number); *Title of Information Collection:* Substance Use-Disorder Prevention that Promotes Opioid Recovery and Treatment (SUPPORT) for Patients and Communities Act Section 1003 Demonstration Evaluation; *Use:* Section 1003 of the SUPPORT Act authorizes the Secretary of HHS, in consultation with the Director of the Agency for Healthcare Research and Quality (AHRQ) and the Assistant Secretary for Mental Health and Substance Use from the Substance Abuse and Mental Health Services Administration (SAMHSA), to conduct a 54-month demonstration project (hereinafter, ''the Demonstration'') which is designed to increase the capacity of Medicaid providers to deliver substance use disorder (SUD) treatment and recovery services.

Section 1003 also requires an evaluation of the demonstration. The evaluation is designed to assess:

- The effectiveness of the Demonstration in increasing the capacity of providers participating under the Medicaid state plan (or a waiver of such plan) to provide substance use disorder treatment or recovery services under such plan (or waiver);
- The activities carried out under the planning grants and demonstration project;
- The extent to which participating states have achieved the stated goals; and
- The strengths and limitations of the planning grants and demonstration project.

This collection of information request is intended to satisfy the reporting requirements, defined in the statute, regarding the impact of the Demonstration. The evaluation of the Demonstration will assess the extent to which the participating states achieved the goals they established to increase substance use treatment or recovery provider capacity under the Medicaid program. This includes both the planning and post-planning periods of the demonstration, as evaluation during both phases will enable CMS and stakeholders to assess the effects of the additional support provided to states during the post-planning period, relative to the planning period only.

Primary data collection will occur in two rounds in year two and year four of the evaluation. In both rounds, data collection will consist of: (1) A survey of providers in all 15 Planning Grant states who are eligible to prescribe and/or administer either buprenorphine or methadone medication for opioid use disorder (OUD), and (2) focus groups of providers in five post-planning period states (two focus groups per state, with six to eight participants in each group) who treat SUD, including OUD.

The survey will gather information on provider experiences related to Medicaid provider enrollment, SUD service delivery, and changes in OUD medication treatment, including barriers and enablers of prescribing and dispensing.

The focus groups will examine the impact of key aspects of implementation, such as perceived burdens associated with Medicaid enrollment or MAT delivery, access to referral placements, value of state-provided TA, and benefits and unanticipated outcomes experienced by providers during the Demonstration. *Form Number:* CMS–10786 (OMB control number: 0938–NEW); *Frequency:* Biennial; *Affected Public:* Private sector (Business or other for-profits and Not-for-profit institutions); *Number of Respondents:* 28,810; *Total Annual Responses:* 14,405; *Total Annual Hours:* 3,689. (For policy questions regarding this collection contact Melanie Brown at 410–786–1095.)

2. *Type of Information Collection Request:* New collection (Request for a new OMB control number); *Title of Information Collection:* Patient-Reported Indicator Survey (PaRIS); *Use:* The Centers for Medicare and Medicaid Services (CMS) invites comments on a proposed new Information Collection Request (ICR) to conduct the International Survey of People Living with Chronic Conditions (hereafter referred to as the PaRIS Survey). This survey has been developed by a collaborative workgroup under the auspices of the Organization for Economic Cooperation and Development (OECD), an international organization that works with governments, policy makers, and citizens to shape policies that foster prosperity, equality, opportunity, and well-being for all.

The OECD launched the PaRIS initiative in 2017 to address gaps in health outcomes measures, particularly regarding user experiences with health care services. OECD member countries, including the U.S., are working together to develop, standardize, and implement indicators that measure outcomes and experiences of health care that matter most to people. The PaRIS Survey will provide a common set of measures that support policy makers across participating countries to improve health care delivery. On behalf of the

Department of Health and Human Services (DHHS) Assistant Secretary for Planning and Evaluation (ASPE), the Office of Enterprise Data and Analytics (OEDA) in CMS has been designated as the lead participant for the U.S.

The PaRIS Survey will help to close critical policy gaps by focusing on: (1) Patient Reported Experience Measures (PREMS) which measure how patients experience health care, and (2) Patient Reported Outcome Measures (PROMS) which measure how patients assess the results of the care they receive. The PaRIS survey includes both PREMS and PROMS items and aims to collect vital information about primary health care, by asking about topics such as the respondent's health, health behaviors, patient activation and confidence in managing their health care, experiences with health care and health providers including access to health care, quality of life, physical functioning, and psychological well-being.

OECD and its member countries will use data collected by the PaRIS Survey to shed light on key questions about how well care in each country is organized around the needs of patients. Results from the survey will show how key outcomes and experiences vary across and within countries. This will allow countries to benchmark and learn from each other's approaches. The survey will also help policy makers in OECD member countries understand how health systems are addressing the needs of persons with chronic health conditions. Findings will foster a dialogue with service providers about how to further improve the performance and people-centeredness of primary health care services.

To facilitate U.S. participation in this important initiative, CMS will leverage the existing sample for the Medicare Current Beneficiary Survey (MCBS). The MCBS is a continuous, multi-purpose survey of a representative national sample of the Medicare population; it is conducted under OMB clearance number 0938–0568. While the MCBS sample includes the population of beneficiaries aged 65 and over and beneficiaries aged 64 and below with certain disabling conditions residing in the U.S., selection for the PaRIS Survey will be limited to beneficiaries aged 65 and over who have seen a medical provider in the last six months to provide a comparable population to survey respondents selected in other participating OECD countries. Interviewers will telephone MCBS respondents and administer the PaRIS Survey by phone as a one-time standalone survey during January through April 2023. Non-response follow-up will be conducted by telephone and in-person as needed. It is estimated that 5,144 Medicare beneficiaries will participate in this 40-minute survey. CMS plans to release a disclosure protected public use file with accompanying methodological documentation. This public use file will also be made available to OECD for analysis and released with data from other participating countries. *Form Number:* CMS–10792 (OMB: 0938-New); Frequency: One-time collection; *Affected Public:* Individuals residing in households; *Total Number of Respondents:* 10,498; *Total Number of Responses:* 10,498; *Total Hours:* 3,814 (For policy questions regarding this collection contact William Long at 410–786–7927.)

3. *Type of Information Collection Request:* Extension of a currently approved collection; *Title of Information Collection:* Generic Clearance for the Health Care Payment Learning and Action Network; *Use:* The Center for Medicare and Medicaid Services (CMS), through the Center for Medicare and Medicaid Innovation, develops and tests innovative new payment and service delivery models in accordance with the requirements of section 1115A and in consideration of the opportunities and factors set forth in section 1115A(b)(2) of the Act. To date, CMS has built a portfolio of models (in operation or recently announced) that have attracted participation from a broad array of health care providers, states, payers, and other stakeholders.

To more effectively partner with stakeholders across the health care system and accelerate system transformation, CMS launched the Health Care Payment Learning and Action Network (LAN) to accelerate the transition to Medicare and non-Medicare alternative payment models by collaborating with a broad array of health care delivery stakeholders, identifying best practices in their implementation, and monitoring the adoption of value-based alternative payment models across the U.S. health care system—to include the percentage of Medicare, Medicaid, and non-Medicare payments tied to (and U.S. lives covered by) alternative payment models that reward the quality of care delivered. *Form Number:* CMS–10575 (OMB control number: 0938–1297); *Frequency:* Occasionally; *Affected Public:* Individuals and Households, State, Local, or Tribal Governments, Federal Government, Private Sector (Business or other for-profits and Not-for-profits); *Number of Respondents:* 30,110; *Number of Responses:* 23,110; *Total Annual Hours:* 26,467. (For questions regarding this collection contact Dustin Allison (303) 437–6123.)

Dated: February 16, 2022.

William N. Parham, III,

Director, Paperwork Reduction Staff, Office of Strategic Operations and Regulatory Affairs.

[FR Doc. 2022–03725 Filed 2–18–22; 8:45 am]

BILLING CODE 4120–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Centers for Medicare & Medicaid Services

[Document Identifiers: CMS–10391, CMS–R–74, CMS–R–306, CMS–265–11 and CMS–10544]

Agency Information Collection Activities: Proposed Collection; Comment Request

AGENCY: Centers for Medicare & Medicaid Services, Health and Human Services (HHS).

ACTION: Notice.

SUMMARY: The Centers for Medicare & Medicaid Services (CMS) is announcing an opportunity for the public to comment on CMS' intention to collect information from the public. Under the Paperwork Reduction Act of 1995 (the PRA), federal agencies are required to publish notice in the **Federal Register** concerning each proposed collection of information (including each proposed extension or reinstatement of an existing collection of information) and to allow 60 days for public comment on the proposed action. Interested persons are invited to send comments regarding our burden estimates or any other aspect of this collection of information, including the necessity and utility of the proposed information collection for the proper performance of the agency's functions, the accuracy of the estimated burden, ways to enhance the quality, utility, and clarity of the information to be collected, and the use of automated collection techniques or other forms of information technology to minimize the information collection burden.

DATES: Comments must be received by April 25, 2022.

ADDRESSES: When commenting, please reference the document identifier or OMB control number. To be assured consideration, comments and recommendations must be submitted in any one of the following ways:

1. *Electronically.* You may send your comments electronically to *http://www.regulations.gov.* Follow the instructions for ''Comment or

Submission'' or ''More Search Options'' to find the information collection document(s) that are accepting comments.

2. *By regular mail.* You may mail written comments to the following address: CMS, Office of Strategic Operations and Regulatory Affairs, Division of Regulations Development, Attention: Document Identifier/OMB Control Number: _____, Room C4–26–05, 7500 Security Boulevard, Baltimore, Maryland 21244–1850.

To obtain copies of a supporting statement and any related forms for the proposed collection(s) summarized in this notice, you may make your request using one of following:

1. Access CMS' website address at website address at *https://www.cms.gov/Regulations-and-Guidance/Legislation/PaperworkReductionActof1995/PRA-Listing.*

FOR FURTHER INFORMATION CONTACT: William N. Parham at (410) 786–4669.

SUPPLEMENTARY INFORMATION:

Contents

This notice sets out a summary of the use and burden associated with the following information collections. More detailed information can be found in each collection's supporting statement and associated materials (see **ADDRESSES**).

CMS–10391—Methods for Assuring Access to Covered Medicaid Services Under 42 CFR 447.203 and 447.204

CMS–R–74 Income and Eligibility Verification System Reporting and Supporting Regulations

CMS–R–306 Use of Restraint and Seclusion in Psychiatric Residential Treatment Facilities (PRTFs) for Individuals Under Age 21 and Supporting Regulations

CMS–265–11 Independent Renal Dialysis Facility Cost Report

CMS–10544 Good Cause Processes

Under the PRA (44 U.S.C. 3501–3520), federal agencies must obtain approval from the Office of Management and Budget (OMB) for each collection of information they conduct or sponsor. The term ''collection of information'' is defined in 44 U.S.C. 3502(3) and 5 CFR 1320.3(c) and includes agency requests or requirements that members of the public submit reports, keep records, or provide information to a third party. Section 3506(c)(2)(A) of the PRA requires federal agencies to publish a 60-day notice in the **Federal Register** concerning each proposed collection of information, including each proposed extension or reinstatement of an existing collection of information, before submitting the collection to OMB for approval. To comply with this requirement, CMS is publishing this notice.

Information Collection

1. *Type of Information Collection Request:* Extension of a currently approved collection; *Title of Information Collection:* Methods for Assuring Access to Covered Medicaid Services Under 42 CFR 447.203 and 447.204; *Use:* Current regulations at 42 CFR 447.203(b) require states to develop an access monitoring review plan (AMRP) that is updated at least every three years for: Primary care services, physician specialist services, behavioral health services, pre and post-natal obstetric services (including labor and delivery), and home health services. When states reduce rates for other Medicaid services, they must add those services to the AMRP and monitor the effects of the rate reductions for 3 years. If access issues are detected, a state must submit a corrective action plan to CMS within 90 days and work to address the issues within 12 months. Section 447.203(b)(7) requires that states have mechanisms to obtain ongoing beneficiary and provider feedback. A state is also required to maintain a record of data on public input and how the state responded to the input. Prior to submitting proposals to reduce or restructure Medicaid service payment rates, states must receive input from beneficiaries, providers, and other affected stakeholders on the extent of beneficiary access to the affected services.

The information is used by states to document that access to care is in compliance with section 1902(a)(30)(A) of the Social Security Act, to identify issues with access within a state's Medicaid program, and to inform any necessary programmatic changes to address issues with access to care. CMS uses the information to make informed approval decisions on State plan amendments that propose to make Medicaid rate reductions or restructure payment rates and to provide the necessary information for CMS to monitor ongoing compliance with section 1902(a)(30)(A). Beneficiaries, providers and other affected stakeholders may use the information to raise access issues to state Medicaid agencies and work with agencies to address those issues. *Form Number:* CMS–10391 (OMB control number: 0938–1134); *Frequency:* Annually; *Affected Public:* State, Local, or Tribal Governments); *Number of Respondents:* 51; *Total Annual Responses:* 212; *Total Annual Hours:* 12,262. (For questions regarding this collection contact Jeremy Silanskis at 410–786–1592.)

2. *Type of Information Collection Request:* Extension of a currently approved collection; *Title of Information Collection:* Income and Eligibility Verification System Reporting and Supporting Regulations; *Use:* Section 1137 of the Social Security Act requires that States verify the income and eligibility information contained on the applicant's application and in the applicant's case file through data matches with the agencies and entities identified in this section. The State Medicaid/CHIP agency will report the existence of a system to collect all information needed to determine and redetermine eligibility for Medicaid and CHIP. The State Medicaid/CHIP agency will attest to using the PARIS system in determining beneficiary eligibility in Medicaid or CHIP benefit programs. *Form Number:* CMS–R–74 (OMB control number: 0938–0467); *Frequency:* Occasionally; *Affected Public:* State, Local, or Tribal Governments; *Number of Respondents:* 55; *Total Annual Responses:* 3,241; *Total Annual Hours:* 1,071. (For policy questions regarding this collection contact Stephanie Bell at 410–786–0617.)

3. *Type of Information Collection Request:* Extension of a currently approved collection; *Title of Information Collection:* Use of Restraint and Seclusion in Psychiatric Residential Treatment Facilities (PRTFs) for Individuals Under Age 21 and Supporting Regulations; *Use:* Psychiatric residential treatment facilities are required to report deaths, serious injuries and attempted suicides to the State Medicaid Agency and the Protection and Advocacy Organization. They are also required to provide residents the restraint and seclusion policy in writing, and to document in the residents' records all activities involving the use of restraint and seclusion. *Form Number:* CMS–R–306 (OMB control number: 0938–0833); *Frequency:* Occasionally; *Affected Public:* Private sector (Business or other for-profits); *Number of Respondents:* 390; *Total Annual Responses:* 1,466,823; *Total Annual Hours:* 449,609. (For policy questions regarding this collection contact Kirsten Jensen at 410–786–8146.)

4. *Type of Information Collection Request:* Reinstatement with change; *Title of Information Collection:* Independent Renal Dialysis Facility Cost Report; *Use:* Under the authority of sections 1815(a) and 1833(e) of the Act, CMS requires that providers of services participating in the Medicare program submit information to determine costs

for health care services rendered to Medicare beneficiaries. CMS requires that providers follow reasonable cost principles under 1861(v)(1)(A) of the Act when completing the Medicare cost report (MCR). Regulations at 42 CFR 413.20 and 413.24 require that providers submit acceptable cost reports on an annual basis and maintain sufficient financial records and statistical data, capable of verification by qualified auditors.

ESRD facilities participating in the Medicare program submit these cost reports annually to report cost and statistical data used by CMS to determine reasonable costs incurred for furnishing dialysis services to Medicare beneficiaries and to effect the year-end cost settlement for Medicare bad debts. *Form Number:* CMS–265–11 (OMB control number: 0938–0236); *Frequency:* Annually; *Affected Public:* Private Sector, Business or other for-profits, State, Local, or Tribal Governments); *Number of Respondents:* 7,492; *Total Annual Responses:* 7,492; *Total Annual Hours:* 494,472. (For questions regarding this collection contact Keplinger, Jill C at 410–786–4550.)

5. *Type of Information Collection Request:* Reinstatement without change; *Title of Information Collection:* Good Cause Processes; *Use:* Section 1851(g)(3)(B)(i) of the Act provides that MA organizations may terminate the enrollment of individuals who fail to pay basic and supplemental premiums after a grace period established by the plan. Section 1860D–1(b)(1)(B)(v) of the Act generally directs us to establish rules related to enrollment, disenrollment, and termination for Part D plan sponsors that are similar to those established for MA organizations under section 1851 of the Act. Consistent with these sections of the Act, subpart B in each of the Parts C and D regulations sets forth requirements with respect to involuntary disenrollment procedures at 42 CFR 422.74 and 423.44, respectively. In addition, section 1876(c)(3)(B) establishes that individuals may be disenrolled from coverage as specified in regulations. Thus, current regulations at 42 CFR 417.460 specify that a cost plan, specifically a Health Maintenance Organization (HMO) or competitive medical plan (CMP), may disenroll a member who fails to pay premiums or other charges imposed by the plan for deductible and coinsurance amounts.

These good cause provisions authorize CMS to reinstate a disenrolled individual's enrollment without interruption in coverage if the non-payment is due to circumstances that the individual could not reasonably foresee or could not control, such as an unexpected hospitalization. At its inception, the process of accepting, reviewing, and processing beneficiary requests for reinstatement for good cause was carried out exclusively by CMS. *Form Number:* CMS–10544 (OMB control number: 0938–1271); *Frequency:* Annually; *Affected Public:* Business or other for-profits State, Local, or Tribal Governments); *Number of Respondents:* 312; *Total Annual Responses:* 41,289; *Total Annual Hours:* 27,499. (For questions regarding this collection contact Fabayo, Ronke at (410) 786–4460.)

Dated: February 16, 2022.

William N. Parham, III,

Director, Paperwork Reduction Staff, Office of Strategic Operations and Regulatory Affairs.

[FR Doc. 2022–03727 Filed 2–18–22; 8:45 am]

BILLING CODE 4120–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Administration for Children and Families

OMB No. 0970–0502

Proposed Information Collection Activity; Behavioral Interventions To Advance Self-Sufficiency Next Generation

AGENCY: Office of Planning, Research, and Evaluation, Administration for Children and Families, HHS.

ACTION: Request for public comment.

SUMMARY: The Office of Planning, Research, and Evaluation (OPRE) in the Administration for Children and Families (ACF), U.S. Department of Health and Human Services (HHS), requests Office of Management and Budget (OMB) approval to extend approval of the ACF Behavioral Interventions to Advance Self-Sufficiency Next Generation (BIAS–NG) Project Overarching Generic (OMB #: 0970–0502; Expiration date: 8/31/2022). Under this overarching generic, ACF collects data as part of rapid cycle testing and evaluation, in order to inform the design of interventions informed by behavioral science and to better understand the mechanisms and effects of such interventions. Interventions have been and will continue to be developed in the program area domains of Temporary Assistance for Needy Families (TANF), child welfare, and Early Head Start/Head Start (EHS/HS). These interventions are intended to improve outcomes for participants in these programs. No changes are proposed.

DATES: *Comments due within 60 days of publication.* In compliance with the requirements of the Paperwork Reduction Act of 1995, ACF is soliciting public comment on the specific aspects of the information collection described above.

ADDRESSES: You can obtain copies of the proposed collection of information and submit comments by emailing *OPREinfocollection@acf.hhs.gov.* Identify all requests by the title of the information collection.

SUPPLEMENTARY INFORMATION:

Description: OPRE is conducting the BIAS–NG project, which uses behavioral insights to design and test interventions intended to improve the efficiency, operations, and efficacy of human services programs. The BIAS–NG project is applying and testing behavioral insights to ACF programs including TANF, Child Welfare, and EHS/HS. This notice is a request for comments on ACF's proposal to extend approval of the overarching generic. Under the approved pilot generic clearance, OPRE has already completed work with five sites and has conducted five tests. The extended approval would allow OPRE to continue to work with at least three additional sites, conducting one or more tests of behavioral interventions. The design and testing of BIAS–NG interventions is rapid and, to the extent possible, iterative. Each specific intervention is designed in consultation with agency leaders and launched as quickly as possible. To maximize the likelihood that the intervention produces measurable, significant, and positive effects on outcomes of interest, rapid cycle evaluation techniques will be employed in which proximate outcomes will be measured to allow the research team to more quickly iterate and adjust the intervention design, informing subsequent tests. Due to the rapid and iterative nature of this work, OPRE sought and received generic clearance to conduct this research. Following standard OMB requirements for generic clearances, once instruments requiring burden are tailored to a specific site and the site's intervention, OPRE submits an individual generic information collection request under this umbrella clearance. Each request includes the individual instrument(s), a justification specific to the individual information collection, a description of the proposed intervention, and any supplementary documents. Each specific information collection includes up to two submissions—one submission for the formative stage research and another submission for any further data

collection requiring burden during the testing phase. The type of information to be collected and the uses of the information is described in the supporting statements, found here: *https://www.reginfo.gov/public/do/PRAViewDocument?ref_nbr=201707-0970-005.*

Respondents: (1) Program Administrators, (2) Program Staff, and (3) Program Clients.

ANNUAL BURDEN ESTIMATES

[TANF, CW, EHS/HS]

Instrument	Number of respondents (TANF, CW, EHS/HS) (total over request period)	Number of responses per respondent (total over request period)	Average burden hours per response (in hours)	Total burden (in hours)	Annual burden (in hours)
Phase 3: Diagnosis and Design					
Administrator interviews/focus groups	48	1	1	48	16
Staff interviews/focus groups	400	1	1	400	133
Client interviews/focus groups	400	1	1	400	133
Client survey	400	1	0.25	100	33
Staff Survey	400	1	0.25	100	33
Phase 4: Evaluation					
Administrator interviews/focus groups	96	1	1	96	32
Staff interviews/focus groups	800	1	1	800	267
Client interviews/focus groups	800	1	1	800	267
Client survey	12,000	1	0.25	3,000	1,000
Staff Survey	1,200	1	0.25	300	100

Estimated Total Annual Burden Hours: 2,014.

Comments: The Department specifically requests comments on (a) whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information shall have practical utility; (b) the accuracy of the agency's estimate of the burden of the proposed collection of information; (c) the quality, utility, and clarity of the information to be collected; and (d) ways to minimize the burden of the collection of information on respondents, including through the use of automated collection techniques or other forms of information technology. Consideration will be given to comments and suggestions submitted within 60 days of this publication.

Authority: 42 U.S.C. 1310.

Mary B. Jones,

ACF/OPRE Certifying Officer.

[FR Doc. 2022–03669 Filed 2–18–22; 8:45 am]

BILLING CODE 4184–07–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

National Institute of Neurological Disorders and Stroke; Notice of Closed Meetings

Pursuant to section 10(d) of the Federal Advisory Committee Act, as amended, notice is hereby given of the following meetings.

The meetings will be closed to the public in accordance with the provisions set forth in sections 552b(c)(4) and 552b(c)(6), Title 5 U.S.C., as amended. The grant applications and the discussions could disclose confidential trade secrets or commercial property such as patentable material, and personal information concerning individuals associated with the grant applications, the disclosure of which would constitute a clearly unwarranted invasion of personal privacy.

Name of Committee: National Institute of Neurological Disorders and Stroke Special Emphasis Panel; Detecting Cognitive Impairment, Including Dementia, in Primary Care and Other Everyday Clinical Settings for the General Public and Health Equity, Pragmatic Clinical Trials (U01 Clinical Trial Required).

Date: March 29, 2022.

Time: 10:00 a.m. to 5:00 p.m.

Agenda: To review and evaluate grant applications.

Place: National Institutes of Health, Neuroscience Center, 6001 Executive Boulevard, Rockville, MD 20852 (Virtual Meeting).

Contact Person: Ana Olariu, Ph.D., Scientific Review Officer, Scientific Review Branch, Division of Extramural Activities, NINDS/NIH, NSC, 6001 Executive Boulevard, Room 3208, MSC 9529, Bethesda, MD 20892, 301–496–9223 *Ana.Olariu@nih.gov.*

Name of Committee: National Institute of Neurological Disorders and Stroke Special Emphasis Panel; BRAIN Initiative Advanced Postdoctoral Career Transition Award to Promote Diversity (K99/R00 Independent Clinical Trial Not Allowed).

Date: March 30, 2022.

Time: 9:00 a.m. to 6:00 p.m.

Agenda: To review and evaluate grant applications and/or proposals.

Place: National Institutes of Health, Neuroscience Center, 6001 Executive Boulevard, Rockville, MD 20852 (Virtual Meeting).

Contact Person: Lataisia Cherie Jones, Ph.D., Scientific Review Officer, Scientific Review Branch, Division of Extramural Activities, NINDS/NIH, NSC, 6001 Executive Boulevard, Suite 3208, Rockville, MD 20852, 301–496–9223, *lataisia.jones@nih.gov.*

Name of Committee: National Institute of Neurological Disorders and Stroke Special Emphasis Panel; Diversity K01 & MOSAIC Postdoctoral Career Transition Award to Promote Diversity (K99/R00 Independent Clinical Trial Not Allowed).

Date: March 31, 2022.

Time: 9:00 a.m. to 6:00 p.m.

Agenda: To review and evaluate grant applications.

Place: National Institutes of Health, Neuroscience Center, 6001 Executive Boulevard, Rockville, MD 20852 (Virtual Meeting).

Contact Person: Lataisia Cherie Jones, Ph.D., Scientific Review Officer, Scientific Review Branch, Division of Extramural Activities, NINDS/NIH, NSC, 6001 Executive Boulevard, Suite 3208, Rockville, MD 20852, 301–496–9223, *lataisia.jones@nih.gov.*

(Catalogue of Federal Domestic Assistance Program Nos. 93.853, Clinical Research Related to Neurological Disorders; 93.854, Biological Basis Research in the Neurosciences, National Institutes of Health, HHS)

Dated: February 15, 2022.

Tyeshia M. Roberson-Curtis,

Program Analyst, Office of Federal Advisory Committee Policy.

[FR Doc. 2022–03667 Filed 2–18–22; 8:45 am]

BILLING CODE 4140–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

National Eye Institute; Notice of Closed Meeting

Pursuant to section 10(d) of the Federal Advisory Committee Act, as amended, notice is hereby given of the following meeting.

The meeting will be closed to the public in accordance with the provisions set forth in sections 552b(c)(4) and 552b(c)(6), Title 5 U.S.C., as amended. The grant applications and the discussions could disclose confidential trade secrets or commercial property such as patentable material, and personal information concerning individuals associated with the grant applications, the disclosure of which would constitute a clearly unwarranted invasion of personal privacy.

Name of Committee: National Eye Institute Special Emphasis Panel; NEI Secondary Data Analysis Applications (R21).

Date: March 28, 2022.

Time: 1:00 p.m. to 5:00 p.m.

Agenda: To review and evaluate grant applications.

Place: National Eye Institute, National Institutes of Health, 6700B Rockledge Drive, Suite 3400, Bethesda, MD 20892 (Virtual Meeting).

Contact Person: Ashley Fortress, Ph.D., Designated Federal Official, Division of Extramural Activities, National Eye Institute, National Institutes of Health, 6700B Rockledge Drive, Ste. 3400, Bethesda, MD 20892, (301) 451–2020, *ashley.fortress@nih.gov.*

(Catalogue of Federal Domestic Assistance Program Nos. 93.867, Vision Research, National Institutes of Health, HHS)

Dated: February 15, 2022.

Tyeshia M. Roberson-Curtis,

Program Analyst, Office of Federal Advisory Committee Policy.

[FR Doc. 2022–03668 Filed 2–18–22; 8:45 am]

BILLING CODE 4140–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

National Institute on Minority Health and Health Disparities; Notice of Closed Meeting

Pursuant to section 10(d) of the Federal Advisory Committee Act, as amended, notice is hereby given of the following meeting.

The meeting will be closed to the public in accordance with the provisions set forth in sections 552b(c)(4) and 552b(c)(6), Title 5 U.S.C., as amended. The grant applications and the discussions could disclose confidential trade secrets or commercial property such as patentable material, and personal information concerning individuals associated with the grant applications, the disclosure of which would constitute a clearly unwarranted invasion of personal privacy.

Name of Committee: National Institute on Minority Health and Health Disparities Special Emphasis Panel; HIV Health Disparity Research in Primary Care Settings.

Date: March 30, 2022.

Time: 2:00 p.m. to 4:00 p.m.

Agenda: To review and evaluate grant applications.

Place: National Institutes of Health, Gateway Plaza, 7201 Wisconsin Ave., Bethesda, MD 20817 (Virtual Meeting).

Contact Person: Xinli Nan, M.D., Ph.D., Scientific Review Officer, Division of Scientific Programs, National Institute on Minority Health and Health Disparities, National Institutes of Health, Gateway Building, 7201 Wisconsin Avenue, Bethesda, MD 20892, 301–594–7784, *Xinli.Nan@nih.gov.*

Dated: February 16, 2022.

David W. Freeman,

Program Analyst, Office of Federal Advisory Committee Policy.

[FR Doc. 2022–03665 Filed 2–18–22; 8:45 am]

BILLING CODE 4140–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

National Institutes of Health

National Institute of Neurological Disorders and Stroke; Notice of Closed Meeting

Pursuant to section 10(d) of the Federal Advisory Committee Act, as amended, notice is hereby given of the following meeting.

The meeting will be closed to the public in accordance with the provisions set forth in sections 552b(c)(4) and 552b(c)(6), Title 5 U.S.C., as amended. The grant applications and the discussions could disclose confidential trade secrets or commercial property such as patentable material, and personal information concerning individuals associated with the grant applications, the disclosure of which would constitute a clearly unwarranted invasion of personal privacy.

Name of Committee: National Institute of Neurological Disorders and Stroke Special Emphasis Panel; URGenT: Translational Efforts to Advance Gene-based Therapies for Ultra-Rare Neurological and Neuromuscular Disorders.

Date: March 9, 2022.

Time: 10:00 a.m. to 3:00 p.m.

Agenda: To review and evaluate grant applications.

Place: National Institutes of Health, Neuroscience Center, 6001 Executive Boulevard, Rockville, MD 20852 (Virtual Meeting).

Contact Person: Mirela Milescu, Ph.D., Scientific Review Officer, Scientific Review Branch, Division of Extramural Activities, NINDS/NIH NSC, 6001 Executive Boulevard, Suite 3208, MSC 9529, Bethesda, MD 20892, *mirela.milescu@nih.gov.*

This notice is being published less than 15 days prior to the meeting due to the timing limitations imposed by the review and funding cycle.

(Catalogue of Federal Domestic Assistance Program Nos. 93.853, Clinical Research Related to Neurological Disorders; 93.854, Biological Basis Research in the Neurosciences, National Institutes of Health, HHS)

Dated: February 15, 2022.

Tyeshia M. Roberson-Curtis,

Program Analyst, Office of Federal Advisory Committee Policy.

[FR Doc. 2022–03666 Filed 2–18–22; 8:45 am]

BILLING CODE 4140–01–P

DEPARTMENT OF HEALTH AND HUMAN SERVICES

Substance Abuse and Mental Health Services Administration

Notice of Meeting

Pursuant to Public Law 92–463, notice is hereby given that the Substance Abuse and Mental Health Services Administration's (SAMHSA) Center for Substance Abuse Prevention (CSAP) Drug Testing Advisory Board (DTAB) will convene via web conference on March 9, 2022, from 10:00 a.m. ET to 1:00 p.m. ET.

The board will meet in open-session on March 9, 2022, from 10:00 a.m. ET to 1:00 p.m. ET, to discuss the Mandatory Guidelines for Federal Workplace Drug Testing Programs with updates from the Department of Transportation, the Nuclear Regulatory Commission and the Food and Drug

Administration. Other discussion topics include a presentation on the Drug-Free Workplace Program Summit meeting scheduled for May, 2022, NLCP drug testing results, and synthetic urines and adulteration.

Meeting registration information can be completed at *http://snacregister.samhsa.gov/MeetingList.aspx.* Web conference and call information will be sent after completing registration. Meeting information and a roster of DTAB members may be obtained by accessing the SAMHSA Advisory Committees website, *https://www.samhsa.gov/about-us/advisory-councils/meetings* or by contacting the Designated Federal Officer, Lisa S. Davis, M.S.

Committee Name: Substance Abuse and Mental Health Services Administration, Center for Substance Abuse Prevention, Drug Testing Advisory Board.

Dates/Time/Type: March 9, 2022, from 10:00 a.m. to 1:00 p.m.: OPEN.

Place: Substance Abuse and Mental Health Services Administration, 5600 Fishers Lane, Rockville, MD 20857.

Contact: Lisa S. Davis, M.S., Social Science Analyst, Center for Substance Abuse Prevention, 5600 Fishers Lane, Rockville, Maryland 20857, Telephone: (240) 276–1440, Email: *Lisa.Davis@samhsa.hhs.gov.*

Anastasia Marie Donovan,

Public Health Advisor, Division of Workplace Programs.

[FR Doc. 2022–03616 Filed 2–18–22; 8:45 am]

BILLING CODE 4162–20–P

DEPARTMENT OF HOMELAND SECURITY

Coast Guard

[Docket No. USCG–2022–0105]

Cooperative Research and Development Agreement—Evaluation of Teledyne FLIR SF280HDEP

AGENCY: Coast Guard, DHS.

ACTION: Notice of intent; request for comments.

SUMMARY: The Coast Guard announces its intent to enter into a cooperative research and development agreement (CRADA) to evaluate and potentially modify target classification technology used in conjunction with electro-optical/infra-red (E.O./IR) systems. The Coast Guard is currently considering partnering with Teledyne FLIR, Inc. and solicits public comment on the possible participation of other parties in the proposed CRADA, and the nature of that participation. The Coast Guard also invites other potential non-Federal participants, who have the interest and capability to bring similar contributions to this type of research, to consider submitting proposals for consideration in similar CRADAs.

DATES: Comments must reach the Coast Guard on or before March 24, 2022. Synopses of proposals regarding future CRADAs must also reach the Coast Guard on or before March 24, 2022

ADDRESSES: Submit comments online at *http://www.regulations.gov* following website instructions. Submit synopses of proposals regarding future CRADAs to Mr. Jay Carey at his address listed in the **FOR FURTHER INFORMATION CONTACT** section.

FOR FURTHER INFORMATION CONTACT: If you have questions on this notice or wish to submit proposals for future CRADAs, contact Mr. Jay Carey, Project Official, Aviation Branch, U.S. Coast Guard Research and Development Center, 1 Chelsea Street, New London, CT 06320, telephone 860–271–2600, email *RDC-info@uscg.mil.*

SUPPLEMENTARY INFORMATION:

Public Participation and Request for Comments

We request public comments on this notice. Although we do not plan to publish responses to comments in the **Federal Register**, we will respond directly to commenters and may modify our proposal in light of comments.

Comments should be marked with docket number USCG–2022–0105 and should provide a reason for each suggestion or recommendation. You should provide personal contact information so that we can contact you if we have questions regarding your comments; but please note that all comments will be posted to the online docket without change and that any personal information you include can be searchable online. For more about privacy and the docket, visit *http://www.regulations.gov/privacyNotice.* We do accept anonymous comments.

We encourage you to submit comments through the Federal Portal at *http://www.regulations.gov.* If your material cannot be submitted using *http://www.regulations.gov,* contact the Coast Guard (see **FOR FURTHER INFORMATION CONTACT**). Documents mentioned in this notice and all public comments, will be in our online docket at *http://www.regulations.gov* and can be viewed by following that website's instructions. Additionally, if you go to the online docket and sign up for email alerts, you will be notified when comments are posted.

Do not submit detailed proposals for future CRADAs to *http://www.regulations.gov.* Instead, submit them directly to the Coast Guard (see **FOR FURTHER INFORMATION CONTACT**).

Discussion

CRADAs are authorized under 15 U.S.C. 3710(a).[1] A CRADA promotes the transfer of technology to the private sector for commercial use, as well as specified research or development efforts that are consistent with the mission of the Federal parties to the CRADA. The Federal party or parties agree with one or more non-Federal parties to share research resources, but the Federal party does not contribute funding.

CRADAs are not procurement contracts. Care is taken to ensure that CRADAs are not used to circumvent the contracting process. CRADAs have a specific purpose and should not be confused with procurement contracts, grants, and other type of agreements.

Under the proposed CRADA, the Coast Guard's Research and Development Center (R&DC) will collaborate with one or more non-Federal participants. Together, the R&DC and the non-Federal participants will identify the capabilities, benefits, risks, and technical limitations of enhancing the SF280HD–EP to operate in support of USCG missions.

We anticipate that the Coast Guard's contributions under the proposed CRADA will include the following:

(1) In conjunction with the non-Federal participant(s), assist in developing the evaluation test plan to be executed under the CRADA;

(2) Provide the small unmanned aircraft system (SUAS) test range, test range support, facilities, and all approvals required for SUAS operation under the CRADA;

(3) Provide airborne targets, operators, and associated equipment necessary to conduct the evaluation test plan;

(4) Coordinate and receive any Unmanned Flight Clearance (UFC) for the evaluations to be executed under this CRADA, as required, to include: Privacy Threshold Analysis, Privacy Impact Assessment, Spectrum Approval with the Office of Information Assurance and Spectrum Policy (CG–65), the Federal Communications Commission (FCC), the National Telecommunications and Information Administration (NTIA) Local Range

[1] The statute confers this authority on the head of each Federal agency. The Secretary of DHS's authority is delegated to the Coast Guard and other DHS organizational elements by DHS Delegation No. 0160.1, para. II.B.34.

spectrum de-confliction/authorization entities

(5) Collaboratively collect and analyze evaluation test plan data; and

(6) Collaboratively develop a final report documenting the methodologies, findings, conclusions, and recommendations of this CRADA work.

We anticipate that the non-Federal participants' contributions under the proposed CRADA will include the following:

(1) Provide SF280HDEP system and all other equipment to conduct the evaluation described in test plan;

(2) Provide all required operators and technicians to conduct the evaluation;

(3) Provide shipment and delivery of all equipment required for the evaluation; and

(4) Provide own travel, personnel, and other expenses as required.

(5) Collaboratively collect and analyze evaluation test plan data; and

(6) Collaboratively develop a final report documenting the methodologies, findings, conclusions, and recommendations of this CRADA work.

The Coast Guard reserves the right to select for CRADA participants all, some, or no proposals submitted for this CRADA. The Coast Guard will provide no funding for reimbursement of proposal development costs. Proposals and any other material submitted in response to this notice will not be returned. Proposals submitted are expected to be unclassified and have no more than five single-sided pages (excluding cover page, DD 1494, JF–12, etc.). The Coast Guard will select proposals at its sole discretion on the basis of:

(1) How well they communicate an understanding of, and ability to meet, the proposed CRADA's goal; and

(2) How well they address the following criteria:

(a) Technical capability to support the non-Federal party contributions described; and

(b) Resources available for supporting the non-Federal party contributions described.

Currently, the Coast Guard is considering Teledyne FLIR, Inc. for participation in this CRADA, because they have a solution in place for providing E.O./IR target auto classification. However, we do not wish to exclude other viable participants from this or future similar CRADAs.

The goal of this CRADA is to evaluate the potential of modifying E.O./IR target auto classification technology. Special consideration will be given to small business firms/consortia, and preference will be given to business units located in the U.S.

This notice is issued under the authority of 5 U.S.C. 552(a) and 15 U.S.C. 3710(a).

Dated: February 16, 2022.

Daniel P. Keane,

Captain, USCG, Commanding Officer, U.S. Coast Guard Research and Development Center.

[FR Doc. 2022–03664 Filed 2–18–22; 8:45 am]

BILLING CODE 9110–04–P

DEPARTMENT OF HOMELAND SECURITY

U.S. Customs and Border Protection

[1651–0015]

Application for Extension of Bond for Temporary Importation (Form 3173)

AGENCY: U.S. Customs and Border Protection (CBP), Department of Homeland Security.

ACTION: 60-Day notice and request for comments; revision of an existing collection of information.

SUMMARY: The Department of Homeland Security, U.S. Customs and Border Protection will be submitting the following information collection request to the Office of Management and Budget (OMB) for review and approval in accordance with the Paperwork Reduction Act of 1995 (PRA). The information collection is published in the **Federal Register** to obtain comments from the public and affected agencies.

DATES: Comments are encouraged and must be submitted (no later than April 25, 2022) to be assured of consideration.

ADDRESSES: Written comments and/or suggestions regarding the item(s) contained in this notice must include the OMB Control Number 1651–0015 in the subject line and the agency name. Please use the following method to submit comments:

Email. Submit comments to: *CBP_PRA@cbp.dhs.gov.*

Due to COVID–19-related restrictions, CBP has temporarily suspended its ability to receive public comments by mail.

FOR FURTHER INFORMATION CONTACT: Requests for additional PRA information should be directed to Seth Renkema, Chief, Economic Impact Analysis Branch, U.S. Customs and Border Protection, Office of Trade, Regulations and Rulings, 90 K Street NE, 10th Floor, Washington, DC 20229–1177, Telephone number 202–325–0056 or via email *CBP_PRA@cbp.dhs.gov.* Please note that the contact information provided here is solely for questions regarding this notice. Individuals seeking information about other CBP programs should contact the CBP National Customer Service Center at 877–227–5511, (TTY) 1–800–877–8339, or CBP website at *https://www.cbp.gov/.*

SUPPLEMENTARY INFORMATION: CBP invites the general public and other Federal agencies to comment on the proposed and/or continuing information collections pursuant to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*). This process is conducted in accordance with 5 CFR 1320.8. Written comments and suggestions from the public and affected agencies should address one or more of the following four points: (1) Whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility; (2) the accuracy of the agency's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used; (3) suggestions to enhance the quality, utility, and clarity of the information to be collected; and (4) suggestions to minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, *e.g.,* permitting electronic submission of responses. The comments that are submitted will be summarized and included in the request for approval. All comments will become a matter of public record.

Overview of This Information Collection

Title: Application for Extension of Bond for Temporary Importation.

OMB Number: 1651–0015.

Form Number: CBP Form 3173.

Current Actions: CBP proposes to extend the expiration date of this information collection and to revise this information collection to allow electronic submission via the Document Image System (DIS). There is no change to the information collected and no change to CBP Form 3173.

Type of Review: Revision.

Affected Public: Businesses.

Abstract: Imported merchandise which is to remain in the customs territory for a period of one year or less without the payment of duties with the intent to destroy or export is entered as a temporary importation of goods under bond (TIB), as authorized under the Harmonized Tariff Schedule of the United States (HTSUS) (19 U.S.C. 1202).

The general requirements for all TIB categories and specific rules for certain types of goods are set forth the notes to Chapter 98 (HTSUS), and in the U.S. notes, article provisions, and rates of duty columns to subchapter XIII. Consistent with 19 CFR 10.37, when this time period is not sufficient, importers and brokers may request an extension by submitting a CBP Form 3173, ''*Application for Extension of Bond for Temporary Importation*'', either electronically or manually, to the Center Director. The period of time may be extended for not more than two further periods of 1 year each, or such shorter periods as may be appropriate. An Extension may be granted by CBP, upon written or electronic submission of a CBP Form 3173, provided that the articles have not been exported or destroyed before receipt of the application, and liquidated damages have not been assessed under the bond before receipt of the application. TIB extensions requested by the Trade will automatically be accepted in the Automated Customs Environment (ACE), but CBP can deny an extension as necessary. CBP Form 3173 is provided for in 19 CFR 10.37 and is accessible at: *https://www.cbp.gov/newsroom/publications/forms?title=3173.*

CBP published its plan to conduct a test of the National Customs Automation Program (NCAP) concerning document imaging in the **Federal Register** (77 FR 20835), on April 4, 2012. Under the test, certain ACE participants are able to submit electronic images of a specific set of CBP and Participating Government Agency (PGA) forms and supporting information to CBP. Specifically, importers, and brokers, are allowed to submit official CBP documents and specified PGA forms via the Electronic Data Interchange (EDI). Although the first phase of the DIS test was limited to certain CBP and PGA forms, the DIS Guidelines were updated over time to include various entry summary documents.

This information collection is necessary to ensure compliance with 19 CFR 10.37 and the DIS guidance.

Proposed Change:

CBP Form 3173 is considered an entry summary document, and ACE participants will be able to submit the CBP Form 3173 electronically through the Document Image System (DIS).

Type of Information Collection: Application for Extension of Bond for Temporary Importation (Form 3173).

Estimated Number of Respondents: 1,822.

Estimated Number of Annual Responses per Respondent: 14.

Estimated Number of Total Annual Responses: 25,509.

Estimated Time per Response: .217 hours.

Estimated Total Annual Burden Hours: 5,527.

Dated: February 16, 2022.

Seth D. Renkema,

Branch Chief, Economic Impact Analysis Branch, U.S. Customs and Border Protection.

[FR Doc. 2022–03674 Filed 2–18–22; 8:45 am]

BILLING CODE 9111–14–P

DEPARTMENT OF HOMELAND SECURITY

Federal Emergency Management Agency

[Docket ID: FEMA–2021–0013; OMB No. 1660–0002]

Agency Information Collection Activities: Proposed Collection; Comment Request; Disaster Assistance Registration

AGENCY: Federal Emergency Management Agency, Department of Homeland Security.

ACTION: 30-Day notice of renewal and request for comments.

SUMMARY: The Federal Emergency Management Agency (FEMA) will submit the information collection abstracted below to the Office of Management and Budget for review and clearance in accordance with the requirements of the Paperwork Reduction Act of 1995. The submission will describe the nature of the information collection, the categories of respondents, the estimated burden (*i.e.,* the time, effort and resources used by respondents to respond) and cost, and the actual data collection instruments FEMA will use. This notice seeks comments concerning Disaster Assistance Registration, COVID–19 Funeral Assistance Registration, and Disaster Assistance Individuals and Households Program (IHP) Occupancy & Ownership Documentation.

DATES: Comments must be submitted on or before March 24, 2022.

ADDRESSES: Written comments and recommendations for the proposed information collection should be sent within 30 days of publication of this notice to *www.reginfo.gov/public/do/PRAMain.* Find this particular information collection by selecting ''Currently under 30-day Review—Open for Public Comments'' or by using the search function.

FOR FURTHER INFORMATION CONTACT: Requests for additional information or copies of the information collection should be made to Director, Information Management Division, 500 C Street SW, Washington, DC 20472, email address *FEMA-Information-Collections-Management@fema.dhs.gov* or Brian Thompson, Supervisory Program Specialist, FEMA, Recovery Directorate at 540–686–3602 or *Brian.Thompson6@fema.dhs.gov.*

SUPPLEMENTARY INFORMATION: The Robert T. Stafford Disaster Relief and Emergency Assistance Act (Pub. L. 93–288) (the Stafford Act), as amended, is the legal basis for FEMA to provide financial assistance and services to individuals who apply for disaster assistance benefits in the event of a Federally-declared disaster. Regulations in Title 44 of the Code of Federal Regulations, Subpart D, ''Federal Assistance to Individuals and Households,'' implement the policy and procedures set forth in section 408 of the Stafford Act. This program provides financial assistance and, if necessary, direct assistance to eligible individuals and households who, as a direct result of a major disaster, have necessary expenses and serious needs that are unable to be met through other means. Individuals and households may apply for assistance (Registration Intake) under the Individuals and Households Program (IHP) in person, via telephone, or internet. FEMA provides financial assistance under the Other Needs Assistance provision of the IHP to individuals or households affected by a major disaster to meet disaster-related funeral expenses under Section 408(e)(1) of the *Robert T. Stafford Disaster Relief and Emergency Assistance Act (Stafford Act), Public Law 93–288, as amended.*

Historically, the agency has utilized a combination of public and commercial validation of ownership and or occupancy, which impacts eligibility for Housing Assistance and some forms of Other Needs Assistance. This update applies to the proposed expansion of the acceptable documentation applicants can submit to FEMA to verify the occupancy and/or ownership of their primary residence and establish eligibility for disaster assistance.

This proposed information collection previously published in the **Federal Register** on November 5, 2021, at 86 FR 61283 with a 60-day public comment period. No comments were received. The purpose of this notice is to notify the public that FEMA will submit the information collection abstracted below

to the Office of Management and Budget for review and clearance.

Collection of Information

Title: Disaster Assistance Registration.

Type of Information Collection: Extension, without change, of a currently approved information collection number.

OMB Number: 1660–0002.

FEMA Forms: FEMA Form FF–104–FY–21–123 (formerly 009–0–1T (English)), Tele-Registration, Disaster Assistance Registration; FEMA Form FF–104–FY–21–123–A (formerly 009–0–1T (Spanish)), Tele-Registration, Registro Para Asistencia De Desatre; FEMA Form FF–104–FY–21–123–COVID–FA (formerly 009–0–1T–COVID–FA (English)), Tele-Registration, COVID–19 Funeral Assistance; FEMA Form FF–104–FY–21–125 (formerly 009–0–1Int (English)), internet, Disaster Assistance Registration; FEMA Form FF–104–FY–21–125–A (formerly 009–0–2Int (Spanish)), internet, Registro Para Asistencia De Desastre; FEMA Form FF–104–FY–21–122 (formerly 009–0–1 (English)), Paper Application/Disaster Assistance Registration; FEMA Form FF–104–FY–21–122–A (formerly 009–0–2 (Spanish)), Solicitud en Papel/Registro Para Asistencia De Desastre; FEMA Form FF–104–FY–21–128 (formerly 009–0–3 (English)), Declaration and Release; FEMA Form FF–104–FY–21–128–A (formerly 009–0–4 (Spanish)), Declaración Y Autorización; FEMA Form FF–104–FY–21–127 (formerly 009–0–5 (English)), Manufactured Housing Unit Revocable License and Receipt for Government Property; FEMA Form FF–104–FY–21–127–A (formerly 009–0–6 (Spanish)), Las Casas Manufacturadas Unidad Licencia Revocable y Recibo de la Propiedad del Gobierno; Requests for Information (RFI).

Abstract: The forms in this collection are used to obtain pertinent information to provide financial assistance, and if necessary, direct assistance to eligible individuals and households who, as a direct result of a disaster or emergency, have uninsured or under-insured, necessary or serious expenses they are unable to meet. This extension, without change, will also support the continued ability to provide COVID–19 Funeral Assistance to individuals who are responsible for a deceased individual's funeral expenses and the expansion of the acceptable documentation applicants can submit to FEMA to verify the occupancy and/or ownership of their primary residence and establish eligibility for disaster assistance.

Affected Public: Individuals or Households.

Estimated Number of Respondents: 2,043,134.

Estimated Number of Responses: 2,043,134.

Estimated Total Annual Burden Hours: 642,031.

Estimated Total Annual Respondent Cost: $25,199,718.

Estimated Respondents' Operation and Maintenance Costs: $0.

Estimated Respondents' Capital and Start-Up Costs: $0.

Estimated Total Annual Cost to the Federal Government: $283,701,377.

Comments

Comments may be submitted as indicated in the **ADDRESSES** caption above. Comments are solicited to (a) evaluate whether the proposed data collection is necessary for the proper performance of the agency, including whether the information shall have practical utility; (b) evaluate the accuracy of the agency's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used; (c) enhance the quality, utility, and clarity of the information to be collected; and (d) minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, *e.g.,* permitting electronic submission of responses.

Maile Arthur,

Deputy Director, Information Management Division, Office of the Chief Administrative Officer, Mission Support, Federal Emergency Management Agency, Department of Homeland Security.

[FR Doc. 2022–03698 Filed 2–18–22; 8:45 am]

BILLING CODE 9111–23–P

DEPARTMENT OF HOMELAND SECURITY

U.S. Citizenship and Immigration Services

[OMB Control Number 1615–0028]

Agency Information Collection Activities; Extension, Without Change, of a Currently Approved Collection: Petition to Classify Orphan as an Immediate Relative; Application for Advance Processing of an Orphan Petition; Supplement 1, Listing of an Adult Member of the Household; Supplement 2, Consent to Disclose Information

AGENCY: U.S. Citizenship and Immigration Services, Department of Homeland Security.

ACTION: 30-Day notice.

SUMMARY: The Department of Homeland Security (DHS), U.S. Citizenship and Immigration Services (USCIS) will be submitting the following information collection request to the Office of Management and Budget (OMB) for review and clearance in accordance with the Paperwork Reduction Act of 1995. The purpose of this notice is to allow an additional 30 days for public comments.

DATES: Comments are encouraged and will be accepted until March 24, 2022.

ADDRESSES: Written comments and/or suggestions regarding the item(s) contained in this notice, especially regarding the estimated public burden and associated response time, must be submitted via the Federal eRulemaking Portal website at *http://www.regulations.gov* under e-Docket ID number USCIS–2008–0020. All submissions received must include the OMB Control Number 1615–0028 in the body of the letter, the agency name and Docket ID USCIS–2008–0020.

FOR FURTHER INFORMATION CONTACT: USCIS, Office of Policy and Strategy, Regulatory Coordination Division, Samantha Deshommes, Chief, Telephone number (240) 721–3000 (This is not a toll-free number; comments are not accepted via telephone message.). Please note contact information provided here is solely for questions regarding this notice. It is not for individual case status inquiries. Applicants seeking information about the status of their individual cases can check Case Status Online, available at the USCIS website at *http://www.uscis.gov,* or call the USCIS Contact Center at (800) 375–5283; TTY (800) 767–1833.

SUPPLEMENTARY INFORMATION:

Comments

The information collection notice was previously published in the **Federal Register** on November 24, 2021, at 86 FR 67073, allowing for a 60-day public comment period. USCIS did receive two comments in connection with the 60-day notice.

You may access the information collection instrument with instructions, or additional information by visiting the Federal eRulemaking Portal site at: *http://www.regulations.gov* and enter USCIS–2008–0020 in the search box. The comments submitted to USCIS via this method are visible to the Office of Management and Budget and comply with the requirements of 5 CFR 1320.12(c). All submissions will be posted, without change, to the Federal eRulemaking Portal at *http://www.regulations.gov,* and will include any personal information you provide. Therefore, submitting this information makes it public. You may wish to consider limiting the amount of personal information that you provide in any voluntary submission you make to DHS. DHS may withhold information provided in comments from public viewing that it determines may impact the privacy of an individual or is offensive. For additional information, please read the Privacy Act notice that is available via the link in the footer of *http://www.regulations.gov.*

Written comments and suggestions from the public and affected agencies should address one or more of the following four points:

(1) Evaluate whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility;

(2) Evaluate the accuracy of the agency's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used

(3) Enhance the quality, utility, and clarity of the information to be collected; and

(4) Minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, *e.g.,* permitting electronic submission of responses.

Overview of This Information Collection

(1) *Type of Information Collection Request:* Extension, Without Change, of a Currently Approved Collection.

(2) *Title of the Form/Collection:* Petition to Classify Orphan as an Immediate Relative; Application for Advance Processing of an Orphan Petition; Supplement 1, Listing of an Adult Member of the Household; Supplement 2, Consent to Disclose Information.

(3) *Agency form number, if any, and the applicable component of the DHS sponsoring the collection:* I–600; I–600A; I–600/I–600A Supplement 1; I–600/I–600A Supplement 2; USCIS.

(4) *Affected public who will be asked or required to respond, as well as a brief abstract: Primary: Individuals or households.* A U.S. adoptive parent may file a petition to classify an orphan as an immediate relative through Form I–600 under section 101(b)(1)(F) of the INA. A U.S. prospective adoptive parent may file Form I–600A in advance of the Form I–600 filing and USCIS will determine the prospective adoptive parent's eligibility to file Form I–600A and their suitability and eligibility to properly parent an orphan. A U.S. adoptive parent may file a petition to classify an orphan as an immediate relative through Form I–600 under section 101(b)(1)(F) of the INA. If a U.S. prospective/adoptive parent has an adult member of his or her household, as defined at 8 CFR 204.301, the prospective/adoptive parent must include the Supplement 1 when filing both Form I–600A and Form I–600. The U.S. prospective/adoptive parent files Supplement 2 to authorize USCIS to disclose case-related information to adoption service providers that would otherwise be protected under the Privacy Act, 5 U.S.C. 552a. Authorized disclosures will assist USCIS in the adjudication of Forms I–600A and I–600.

(5) *An estimate of the total number of respondents and the amount of time estimated for an average respondent to respond:* The estimated total number of respondents for the information collection Form I–600 is 1,200 and the estimated hour burden per response is 1 hour; the estimated total number of respondents for the information collection Form I–600A is 2,000 and the estimated hour burden per response is 1 hour; the estimated total number of respondents for the information collection Form I–600A Supplement 1 is 301 and the estimated hour burden per response is 1 hour; the estimated total number of respondents for the information collection Form I–600A Supplement 2 is 1,260 and the estimated hour burden per response is 0.25 hours; the estimated total number of respondents for the Home Study information collection is 2,500 and the estimated hour burden per response is 25 hours; the estimated total number of respondents for the biometrics submission is 2,520 and the estimated hour burden per response is 1.17 hours; and the estimated total number of respondents for the Biometrics—DNA information collection is 2 and the estimated hour burden per response is 6 hours.

(6) *An estimate of the total public burden (in hours) associated with the collection:* The total estimated annual hour burden associated with this collection is 69,276 hours.

(7) *An estimate of the total public burden (in cost) associated with the collection:* The estimated total annual cost burden associated with this collection of information is $7,759,232.

Dated: February 14, 2022.

Jerry L Rigdon,

Deputy Chief, Regulatory Coordination Division, Office of Policy and Strategy, U.S. Citizenship and Immigration Services, Department of Homeland Security.

[FR Doc. 2022–03681 Filed 2–18–22; 8:45 am]

BILLING CODE 9111–97–P

DEPARTMENT OF HOMELAND SECURITY

U.S. Citizenship and Immigration Services

[OMB Control Number 1615–1615–0069]

Agency Information Collection Activities; Extension, Without Change, of a Currently Approved Collection: Application by Refugee for Waiver of Inadmissibility Grounds

AGENCY: U.S. Citizenship and Immigration Services, Department of Homeland Security.

ACTION: 30-Day notice.

SUMMARY: The Department of Homeland Security (DHS), U.S. Citizenship and Immigration Services (USCIS) will be submitting the following information collection request to the Office of Management and Budget (OMB) for review and clearance in accordance with the Paperwork Reduction Act of 1995. The purpose of this notice is to allow an additional 30 days for public comments.

DATES: Comments are encouraged and will be accepted until March 24, 2022.

ADDRESSES: Written comments and/or suggestions regarding the item(s) contained in this notice, especially regarding the estimated public burden and associated response time, must be submitted via the Federal eRulemaking Portal website at *http://*

www.regulations.gov under e-Docket ID number USCIS–2006–0042. All submissions received must include the OMB Control Number 1615–0069 in the body of the letter, the agency name and Docket ID USCIS–2006–0042.

FOR FURTHER INFORMATION CONTACT: USCIS, Office of Policy and Strategy, Regulatory Coordination Division, Samantha Deshommes, Chief, Telephone number (240) 721–3000 (This is not a toll-free number; comments are not accepted via telephone message.). Please note contact information provided here is solely for questions regarding this notice. It is not for individual case status inquiries. Applicants seeking information about the status of their individual cases can check Case Status Online, available at the USCIS website at *http://www.uscis.gov,* or call the USCIS Contact Center at (800) 375–5283; TTY (800) 767–1833.

SUPPLEMENTARY INFORMATION:

Comments

The information collection notice was previously published in the **Federal Register** on November 24, 2022, at 86 FR 67073, allowing for a 60-day public comment period. USCIS did receive three comments in connection with the 60-day notice.

You may access the information collection instrument with instructions, or additional information by visiting the Federal eRulemaking Portal site at: *http://www.regulations.gov* and enter USCIS–2006–0042 in the search box. The comments submitted to USCIS via this method are visible to the Office of Management and Budget and comply with the requirements of 5 CFR 1320.12(c). All submissions will be posted, without change, to the Federal eRulemaking Portal at *http://www.regulations.gov,* and will include any personal information you provide. Therefore, submitting this information makes it public. You may wish to consider limiting the amount of personal information that you provide in any voluntary submission you make to DHS. DHS may withhold information provided in comments from public viewing that it determines may impact the privacy of an individual or is offensive. For additional information, please read the Privacy Act notice that is available via the link in the footer of *http://www.regulations.gov.*

Written comments and suggestions from the public and affected agencies should address one or more of the following four points:

(1) Evaluate whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility;

(2) Evaluate the accuracy of the agency's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used

(3) Enhance the quality, utility, and clarity of the information to be collected; and

(4) Minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, *e.g.,* permitting electronic submission of responses.

Overview of This Information Collection

(1) *Type of Information Collection Request:* Extension, Without Change, of a Currently Approved Collection.

(2) *Title of the Form/Collection:* Application by Refugee for Waiver of Inadmissibility Grounds.

(3) *Agency form number, if any, and the applicable component of the DHS sponsoring the collection:* I–602; USCIS.

(4) *Affected public who will be asked or required to respond, as well as a brief abstract: Primary: Individuals or households.* The data collected on Form I–602, Application by Refugee for Waiver of Inadmissibility Grounds, will be used by USCIS to determine eligibility for waivers, and to report to Congress the reasons for granting waivers.

(5) *An estimate of the total number of respondents and the amount of time estimated for an average respondent to respond:* The estimated total number of respondents for the information collection I–602 is 240 and the estimated hour burden per response is 8 hours.

(6) *An estimate of the total public burden (in hours) associated with the collection:* The total estimated annual hour burden associated with this collection is 1,920 hours.

(7) *An estimate of the total public burden (in cost) associated with the collection:* The estimated total annual cost burden associated with this collection of information is $30,900.

Dated: February 14, 2022.

Jerry L Rigdon,

Deputy Chief, Regulatory Coordination Division, Office of Policy and Strategy, U.S. Citizenship and Immigration Services, Department of Homeland Security.

[FR Doc. 2022–03682 Filed 2–18–22; 8:45 am]

BILLING CODE 9111–97–P

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

[FWS–R2–ES–2021–N028; FXES11140200000–223–FF02ENEH00]

Draft Low Effect Screening Form for a Categorical Exclusion and Candidate Conservation Plan; Texas Kangaroo Rat Candidate Conservation Agreement With Assurances, Montague, Clay, Wichita, Archer, Wilbarger, Baylor, Hardeman, Foard, Childress, Cottle, and Motley Counties, Texas

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Notice of availability; request for public comments.

SUMMARY: We, the U.S. Fish and Wildlife Service, make available a draft low-effect screening form for a categorical exclusion (dCatEx form) under the National Environmental Policy Act and candidate conservation agreement with assurances (CCAA) for normal agricultural operations, recreation, and nature tourism in Montague, Clay, Wichita, Archer, Wilbarger, Baylor, Hardeman, Foard, Childress, Cottle, and Motley Counties, in Texas. Texas Parks & Wildlife Department has applied for an enhancement of survival permit (EOS) under the Endangered Species Act that would authorize incidental take of the Texas kangaroo rat. The dCatEx form evaluates the impacts of, and alternatives to, implementation of the proposed CCAA. We seek public comment on the CCAA, dCatEx form, and EOS application.

DATES: To ensure consideration, written comments must be received or postmarked on or before 11:59 p.m. eastern time on March 24, 2022. We may not consider any comments we receive after the closing date in the final decision on this action.

ADDRESSES: *Accessing Documents:* You may access the dCatEx form and CCAA by any of the following means. In your request for documents, please reference the ''Texas Kangaroo Rat CCAA.''

- *Internet: https://www.fws.gov/southwest/es/arlingtontexas/.*
- *U.S. Mail:* You may obtain a CD–ROM containing the documents (limited supply) or printed copies, by request from Ms. Debra T. Bills, 2005 Northeast Green Oaks Boulevard, Suite 140, Arlington, TX 76006.
- *Email: arles@fws.gov.*

Submitting Comments: You may submit written comments by one of the following methods. In your comments,

please reference ''Texas Kangaroo Rat CCAA.''

- *Email: arles@fws.gov.*
- *U.S. Mail:* Debra T. Bills (street address above).
- *Fax:* 817–277–1129.

We request that you send comments by only one of the above methods.

FOR FURTHER INFORMATION CONTACT: Debra T. Bills, Field Supervisor, by mail (street address above); via phone at 817–277–1100, ext. 22113; or via the Federal Relay Service at 800–877–8339.

SUPPLEMENTARY INFORMATION: Section 9 of the Endangered Species Act (ESA; 16 U.S.C. 1531 *et seq.*) and its implementing regulations prohibit the ''take'' of animal species listed as endangered or threatened. Take is defined under the ESA as to ''harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect listed animal species, or to attempt to engage in such conduct'' (16 U.S.C. 1538). However, under section 10(a) of the ESA, we, the U.S. Fish and Wildlife Service (Service), may issue permits for incidental take if such take is authorized under an enhancement of survival of candidate species permit (EOS permit) and covered by a candidate conservation agreement with assurances (CCAA). ''Incidental take'' is defined by the ESA as take that is incidental to, and not the purpose of, carrying out an otherwise lawful activity. Regulations governing take of endangered and threatened species, respectively, are found in the Code of Federal Regulations at 50 CFR 17.22 and 50 CFR 17.32.

Background

The Texas Parks & Wildlife Department has applied to the Service for an EOS permit under section 10(a)(1)(A) of the ESA. If granted, the requested EOS permit would be in effect upon a listing of the Texas kangaroo rat (*Dipodomys elator*) under the ESA during the 10-year term of the CCAA, and would authorize incidental take of the species. The proposed incidental take would result from activities associated with otherwise lawful activities, including normal agricultural operations, recreation, and nature tourism resulting from ground disturbance and changes in vegetation community composition and structure. The CCAA includes conservation measures to minimize and mitigate direct and indirect impacts to the Texas kangaroo rat and provide net conservation benefits to the species.

Alternatives

Proposed Action

The proposed action involves the issuance of an EOS permit by the Service for the covered activities in the permit area, under section 10(a)(1)(A) of the ESA. The EOS permit would cover incidental take of the covered species associated with annual production and preparation for market of crops, livestock, and livestock products and in the production and harvesting of agriculture, agronomic, horticulture, silviculture, and rangeland commodities within the permit area, in the event the covered species is listed under the ESA during the 10-year term of the CCAA. An application for an EOS permit must include a CCAA that describes the conservation measures the applicant has agreed to undertake to minimize and mitigate for the impacts of the proposed taking of covered species to the maximum extent practicable. The applicant will fully implement the CCAA if approved by the Service. The terms of the CCAA and EOS permit will also ensure that incidental take will not appreciably reduce the likelihood of the survival and recovery of the species in the wild.

No Action Alternative

We have considered one alternative to the proposed action as part of this process: No Action. Under a No Action alternative, the Service would not issue the requested EOS permit, and the applicant would proceed in either of the following ways:

1. The applicant would not plant, cultivate, produce, harvest, process, package, store, or market for wholesale or retail distribution any agricultural commodities. The applicant would not undertake management of agricultural waste.

2. The applicant would conduct the above-described activities, but would do so in a manner that avoids incidental take.

In either of the above two cases in the No Action Alternative, the applicant would not implement the conservation measures described in the CCAA.

Next Steps

We will evaluate the CCAA and comments we receive to determine whether the EOS application meets the requirements of section 10(a) of the ESA (16 U.S.C. 1531 *et seq.*). We will also evaluate whether issuance of a section 10(a)(1)(A) permit would comply with section 7 of the ESA by conducting an intra-Service section 7 consultation. We will use the results of this consultation, in combination with the above findings, in our final analysis to determine whether to issue an EOS permit. If all necessary requirements are met, we will issue the EOS permit to the applicant.

Public Availability of Comments

Written comments we receive become part of the public record associated with this action. Before including your address, phone number, email address, or other personal identifying information in your comment, you should be aware that your entire comment—including your personal identifying information—may be made publicly available at any time. While you can request in your comment that we withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so. We will not consider anonymous comments. All submissions from organizations or businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses, will be made available for public disclosure in their entirety.

Authority

We provide this notice under the authority of section 10(c) of the ESA and its implementing regulations (50 CFR 17.22 and 50 CFR 17.32) and NEPA (42 U.S.C. 4371 *et seq.*) and its implementing regulations (40 CFR 1506.6).

Amy L. Lueders,

Regional Director, Southwest Region, U.S. Fish and Wildlife Service.

[FR Doc. 2022–03619 Filed 2–18–22; 8:45 am]

BILLING CODE 4333–15–P

DEPARTMENT OF THE INTERIOR

Bureau of Indian Affairs

[2231A2100DD/AAKC001030/A0A501010.999900; OMB Control Number 1076–0183]

Agency Information Collection Activities; Submission to the Office of Management and Budget for Review and Approval; Secretarial Elections

AGENCY: Bureau of Indian Affairs, Interior.

ACTION: Notice of information collection; request for comment.

SUMMARY: In accordance with the Paperwork Reduction Act of 1995, we, the Bureau of Indian Affairs (BIA) are proposing to renew an information collection.

DATES: Interested persons are invited to submit comments on or before March 24, 2022.

ADDRESSES: Send written comments on this information collection request (ICR) to the Office of Management and Budget's Desk Officer for the Department of the Interior by email at *OIRA_Submission@omb.eop.gov;* or via facsimile to (202) 395–5806. Please provide a copy of your comments to Steven Mullen, Information Collection Clearance Officer, Office of Regulatory Affairs and Collaborative Action—Indian Affairs, U.S. Department of the Interior, 1001 Indian School Road NW, Suite 229, Albuquerque, New Mexico 87104; or by email to *comments@bia.gov.* Please reference OMB Control Number 1076–0183 in the subject line of your comments.

FOR FURTHER INFORMATION CONTACT: To request additional information about this ICR, contact Jeanette Hanna, Deputy Bureau Director, Indian Services, Office of Indian Services, BIA, by email at *jeanette.hanna@bia.gov* or telephone at (202) 208–2874. You may also view the ICR at *http://www.reginfo.gov/public/do/PRAMain.*

SUPPLEMENTARY INFORMATION: In accordance with the Paperwork Reduction Act of 1995, we provide the general public and other Federal agencies with an opportunity to comment on new, proposed, revised, and continuing collections of information. This helps us assess the impact of our information collection requirements and minimize the public's reporting burden. It also helps the public understand our information collection requirements and provide the requested data in the desired format.

A **Federal Register** notice with a 60-day public comment period soliciting comments on this collection of information was published on September 7, 2021 (86 FR 50153). No comments were received.

As part of our continuing effort to reduce paperwork and respondent burdens, we are again soliciting comments from the public and other Federal agencies on the proposed ICR that is described below. We are especially interested in public comment addressing the following:

(1) Whether or not the collection of information is necessary for the proper performance of the functions of the agency, including whether or not the information will have practical utility;

(2) The accuracy of our estimate of the burden for this collection of information, including the validity of the methodology and assumptions used;

(3) Ways to enhance the quality, utility, and clarity of the information to be collected; and

(4) How might the agency minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, *e.g.,* permitting electronic submission of response.

Comments that you submit in response to this notice are a matter of public record. Before including your address, phone number, email address, or other personal identifying information in your comment, you should be aware that your entire comment—including your personal identifying information—may be made publicly available at any time. While you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.

Abstract: Under the Indian Reorganization Act, Tribes have the right to organize and adopt constitutions, bylaws, and any amendments thereto, and ratify charters of incorporation, through elections called by the Secretary of the Interior, according to rules prescribed by the Secretary. See 25 U.S.C. 476, 477, 503. The Secretary's rules for conducting these elections, known as ''Secretarial elections,'' and approving the results are at 25 CFR 81. In most cases, the Tribe requests a Secretarial election; however, an individual voting member of a Tribe may also request a Secretarial election by petition. These rules also establish the procedures for an individual to petition for a Secretarial election.

The BIA requires the Tribe to submit a formal request for Secretarial election, including: A Tribal resolution; the document or language to be voted on in the election; a list of all Tribal members who are age 18 or older in the next 120 days (when the election will occur), including their last known addresses, voting districts (if any), and dates of birth, in an electronically sortable format.

While much of the information the Tribe prepares for a Secretarial election (*e.g.,* list of members eligible to vote) would be required if the Tribe instead conducted its own Tribal election, the Secretary's rules establish specifics on what a Tribal request or petition for election must contain. These specifics are necessary to ensure the integrity of Secretarial elections and allow the BIA and Tribal personnel the ability to consistently administer elections.

Title of Collection: Secretarial Elections.

OMB Control Number: 1076–0183.

Form Number: N/A.

Type of Review: Extension of a currently approved collection.

Respondents/Affected Public: Federally recognized Tribes and their members.

Total Estimated Number of Annual Respondents: 252,041.

Total Estimated Number of Annual Responses: 252,041.

Estimated Completion Time per Response: Varies from 15 minutes to 40 hours.

Total Estimated Number of Annual Burden Hours: 64,305.

Respondent's Obligation: Required to Obtain a Benefit.

Frequency of Collection: On occasion.

Total Estimated Annual Nonhour Burden Cost: $146,160.

An agency may not conduct or sponsor and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number.

The authority for this action is the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq*).

Steven Mullen,

Information Collection Clearance Officer, Office of Regulatory Affairs and Collaborative Action—Indian Affairs.

[FR Doc. 2022–03722 Filed 2–18–22; 8:45 am]

BILLING CODE 4337–15–P

DEPARTMENT OF THE INTERIOR

Bureau of Indian Affairs

[2231A2100DD/AAKC001030/A0A501010.999900; OMB Control Number 1076–0112]

Agency Information Collection Activities; Submission to the Office of Management and Budget for Review and Approval; Tribal Reassumption of Jurisdiction Over Child Custody Proceedings

AGENCY: Bureau of Indian Affairs, Interior.

ACTION: Notice of information collection; request for comment.

SUMMARY: In accordance with the Paperwork Reduction Act of 1995, we, the Bureau of Indian Affairs (BIA) are proposing to renew an information collection.

DATES: Interested persons are invited to submit comments on or before March 24, 2022.

ADDRESSES: Send written comments on this information collection request (ICR) to the Office of Management and Budget's Desk Officer for the Department of the Interior by email at *OIRA_Submission@omb.eop.gov;* or via

facsimile to (202) 395–5806. Please provide a copy of your comments to Steven Mullen, Information Collection Clearance Officer, Office of Regulatory Affairs and Collaborative Action—Indian Affairs, U.S. Department of the Interior, 1001 Indian School Road NW, Suite 229, Albuquerque, New Mexico 87104; or by email to *comments@bia.gov.* Please reference OMB Control Number 1076–0112 in the subject line of your comments.

FOR FURTHER INFORMATION CONTACT: To request additional information about this ICR, contact Jeanette Hanna, Deputy Bureau Director, Indian Services, Office of Indian Services, BIA, by email at *jeanette.hanna@bia.gov* or telephone at (202) 208–2874. You may also view the ICR at *http://www.reginfo.gov/public/do/PRAMain.*

SUPPLEMENTARY INFORMATION: In accordance with the Paperwork Reduction Act of 1995, we provide the general public and other Federal agencies with an opportunity to comment on new, proposed, revised, and continuing collections of information. This helps us assess the impact of our information collection requirements and minimize the public's reporting burden. It also helps the public understand our information collection requirements and provide the requested data in the desired format.

A **Federal Register** notice with a 60-day public comment period soliciting comments on this collection of information was published on September 7, 2021 (86 FR 50153). No comments were received.

As part of our continuing effort to reduce paperwork and respondent burdens, we are again soliciting comments from the public and other Federal agencies on the proposed ICR that is described below. We are especially interested in public comment addressing the following:

(1) Whether or not the collection of information is necessary for the proper performance of the functions of the agency, including whether or not the information will have practical utility;

(2) The accuracy of our estimate of the burden for this collection of information, including the validity of the methodology and assumptions used;

(3) Ways to enhance the quality, utility, and clarity of the information to be collected; and

(4) How might the agency minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, *e.g.,* permitting electronic submission of response.

Comments that you submit in response to this notice are a matter of public record. Before including your address, phone number, email address, or other personal identifying information in your comment, you should be aware that your entire comment—including your personal identifying information—may be made publicly available at any time. While you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.

Abstract: The BIA is seeking to renew the information collection conducted under 25 CFR 13, Tribal Reassumption of Jurisdiction over Child Custody Proceedings, which prescribes procedures by which a federally recognized Tribe that occupies Tribal lands over which a State asserts any jurisdiction pursuant to Federal law may reassume jurisdiction over Indian child proceedings as authorized by the Indian Child Welfare Act, Public Law 95–608, 92 Stat. 3069, 25 U.S.C. 1918.

The collection of information will ensure that the provisions of Public Law 95–608 are met. Any federally recognized Tribe that became subject to State jurisdiction pursuant to the provisions of the Act of August 15, 1953 (67 Stat. 588), as amended by title IV of the Act of April 11, 1968 (82 Stat. 73,78), or pursuant to any other Federal law, may reassume jurisdiction over child custody proceedings. The collection of information provides data that will be used in considering the petition and feasibility of the plan of the Tribe for reassumption of jurisdiction over Indian child custody proceedings. We collect the following information: Full name, address, and telephone number of petitioning Tribe or Tribes; a Tribal resolution; estimated total number of members in the petitioning Tribe of Tribes with an explanation of how the number was estimated; current criteria for Tribal membership; citation to provision in Tribal constitution authorizing the Tribal governing body to exercise jurisdiction over Indian child custody matters; description of Tribal court; copy of any Tribal ordinances or Tribal court rules establishing procedures or rules for exercise of jurisdiction over child custody matters; and all other information required by 25 CFR 13.11.

Title of Collection: Tribal Reassumption of Jurisdiction over Child Custody Proceedings.

OMB Control Number: 1076–0112.

Form Number: None.

Type of Review: Extension of a currently approved collection.

Respondents/Affected Public: Federally recognized Tribes who submit Tribal reassumption petitions for review and approval by the Secretary of the Interior.

Total Estimated Number of Annual Respondents: 1.

Total Estimated Number of Annual Responses: 1.

Estimated Completion Time per Response: 8 hours.

Total Estimated Number of Annual Burden Hours: 8 hours.

Respondent's Obligation: Required to Obtain or Retain a Benefit.

Frequency of Collection: On occasion.

Total Estimated Annual Non-hour Burden Cost: None.

An agency may not conduct or sponsor and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number.

The authority for this action is the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq*).

Steven Mullen,

Information Collection Clearance Officer, Office of Regulatory Affairs and Collaborative Action—Indian Affairs.

[FR Doc. 2022–03719 Filed 2–18–22; 8:45 am]

BILLING CODE 4337–15–P

DEPARTMENT OF THE INTERIOR

Bureau of Indian Affairs

[2231A2100DD/AAKC001030/A0A501010.999900; OMB Control Number 1076–0184]

Agency Information Collection Activities; Submission to the Office of Management and Budget for Review and Approval; Bureau of Indian Affairs Housing Improvement Program

AGENCY: Bureau of Indian Affairs, Interior.

ACTION: Notice of information collection; request for comment.

SUMMARY: In accordance with the Paperwork Reduction Act of 1995, we, the Bureau of Indian Affairs (BIA) are proposing to renew an information collection.

DATES: Interested persons are invited to submit comments on or before March 24, 2022.

ADDRESSES: Send written comments on this information collection request (ICR) to the Office of Management and Budget's Desk Officer for the Department of the Interior by email at *OIRA_Submission@omb.eop.gov*; or via

facsimile to (202) 395–5806. Please provide a copy of your comments to Steven Mullen, Information Collection Clearance Officer, Office of Regulatory Affairs and Collaborative Action—Indian Affairs, U.S. Department of the Interior, 1001 Indian School Road NW, Suite 229, Albuquerque, New Mexico 87104; or by email to *comments@bia.gov*. Please reference OMB Control Number 1076–0184 in the subject line of your comments.

FOR FURTHER INFORMATION CONTACT: To request additional information about this ICR, contact Jeanette Hanna, Deputy Bureau Director, Indian Services, Office of Indian Services, BIA, by email at *jeanette.hanna@bia.gov* or telephone at (202) 208–2874. You may also view the ICR at *https://www.reginfo.gov/public/do/PRAMain*.

SUPPLEMENTARY INFORMATION: In accordance with the Paperwork Reduction Act of 1995, we provide the general public and other Federal agencies with an opportunity to comment on new, proposed, revised, and continuing collections of information. This helps us assess the impact of our information collection requirements and minimize the public's reporting burden. It also helps the public understand our information collection requirements and provide the requested data in the desired format.

A **Federal Register** notice with a 60-day public comment period soliciting comments on this collection of information was published on September 7, 2021 (86 FR 50153). No comments were received.

As part of our continuing effort to reduce paperwork and respondent burdens, we are again soliciting comments from the public and other Federal agencies on the proposed ICR that is described below. We are especially interested in public comment addressing the following:

(1) Whether or not the collection of information is necessary for the proper performance of the functions of the agency, including whether or not the information will have practical utility;

(2) The accuracy of our estimate of the burden for this collection of information, including the validity of the methodology and assumptions used;

(3) Ways to enhance the quality, utility, and clarity of the information to be collected; and

(4) How might the agency minimize the burden of the collection of information on those who are to respond, including through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, *e.g.,* permitting electronic submission of response.

Comments that you submit in response to this notice are a matter of public record. Before including your address, phone number, email address, or other personal identifying information in your comment, you should be aware that your entire comment—including your personal identifying information—may be made publicly available at any time. While you can ask us in your comment to withhold your personal identifying information from public review, we cannot guarantee that we will be able to do so.

Abstract: Submission of this information allows BIA to determine applicant eligibility for housing services based upon the criteria referenced in 25 CFR 256.9 (repairs and renovation assistance) and 256.10 (replacement housing assistance). Enrolled members of a federally recognized Tribe, who live within a Tribe's designated and approved service area, submit information on an application form. The information is collected on a BIA Form 6407, ''Housing Assistance Application,'' and includes:

A. *Applicant Information including:* Name, current address, telephone number, date of birth, social security number, Tribe, roll number, reservation, marital status, name of spouse, date of birth of spouse, Tribe of spouse, and roll number of spouse.

B. *Family Information including:* Name, date of birth, relationship to applicant, and Tribe/roll number.

C. *Income Information:* Earned and unearned income.

D. *Housing Information including:* Location of the house to be repaired, constructed, or purchased; description of housing assistance for which applying; knowledge of receipt of prior Housing Improvement Program assistance, amount to whom and when; ownership or rental; availability of electricity and name of electric company; type of sewer system; water source; number of bathroom facilities.

E. *Land Information including:* Landowner; legal status of land; or type of interest in land.

F. *General Information including:* Prior receipt of services under the Housing Improvement Program and description of such; ownership of other housing and description of such; identification of Housing and Urban Development-funded house and current status of project; identification of other sources of housing assistance for which the applicant has applied and been denied assistance, if applying for a new housing unit or purchase of an existing standard unit; and advisement and description of any severe health problem, handicap or permanent disability.

G. *Applicant Certification including:* Signature of applicant and date, and signature of spouse and date.

Title of Collection: Bureau of Indian Affairs Housing Improvement Program.

OMB Control Number: 1076–0184.

Form Number: BIA–6407, Tribal Annual Performance Report (TAPR) Excel workbook, and the Government Performance Results Act (GPRA) Reporting Form.

Type of Review: Extension of a currently approved collection.

Respondents/Affected Public: Individuals.

Total Estimated Number of Annual Respondents: 12,292 per year, on average.

Total Estimated Number of Annual Responses: 12,523 per year, on average.

Estimated Completion Time per Response: Varies between 15 and 30 minutes.

Total Estimated Number of Annual Burden Hours: 5,185 hours.

Respondent's Obligation: A response is required to obtain a benefit.

Frequency of Collection: Once per year for the HIP Application, HIP Addendum, and TAPR workbook. Quarterly for the GPRA Reporting form.

Total Estimated Annual Nonhour Burden Cost: $0.

An agency may not conduct or sponsor and a person is not required to respond to a collection of information unless it displays a currently valid OMB control number.

The authority for this action is the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq*).

Steven Mullen,

Information Collection Clearance Officer, Office of Regulatory Affairs and Collaborative Action—Indian Affairs.

[FR Doc. 2022–03726 Filed 2–18–22; 8:45 am]

BILLING CODE 4337–15–P

INTERNATIONAL TRADE COMMISSION

[Investigation Nos. 731–TA–1299, 1300, 1302 (Review)]

Circular Welded Carbon-Quality Steel Pipe From Oman, Pakistan, and the United Arab Emirates; Notice of Commission Determination to Conduct Full Five-Year Reviews

AGENCY: United States International Trade Commission.

ACTION: Notice.

SUMMARY: The Commission hereby gives notice that it will proceed with full reviews pursuant to the Tariff Act of 1930 to determine whether revocation of the antidumping duty orders on circular welded carbon-quality steel pipe from Oman, Pakistan, and the United Arab Emirates would be likely to lead to continuation or recurrence of material injury within a reasonably foreseeable time. A schedule for the reviews will be established and announced at a later date.

DATES: February 4, 2022.

FOR FURTHER INFORMATION CONTACT: Angela Newell (202–205–2060), Office of Investigations, U.S. International Trade Commission, 500 E Street SW, Washington, DC 20436. Hearing-impaired persons can obtain information on this matter by contacting the Commission's TDD terminal on 202–205–1810. Persons with mobility impairments who will need special assistance in gaining access to the Commission should contact the Office of the Secretary at 202–205–2000. General information concerning the Commission may also be obtained by accessing its internet server (*https://www.usitc.gov*). The public record for these reviews may be viewed on the Commission's electronic docket (EDIS) at *https://edis.usitc.gov.* For further information concerning the conduct of these reviews and rules of general application, consult the Commission's Rules of Practice and Procedure, part 201, subparts A through E (19 CFR part 201), and part 207, subparts A, D, E, and F (19 CFR part 207).

SUPPLEMENTARY INFORMATION: On February 4, 2022, the Commission determined that it should proceed to full reviews in the subject five-year reviews pursuant to section 751(c) of the Tariff Act of 1930 (19 U.S.C. 1675(c)). The Commission found that the domestic interested party group response and the respondent interested party group response from the United Arab Emirates to its notice of institution (86 FR 60289, November 1, 2021) were adequate, and determined to conduct a full review of the order on imports from the United Arab Emirates. The Commission also found that the respondent interested party group responses from Oman and Pakistan were inadequate but determined to conduct full reviews of the orders on circular welded carbon-quality steel pipe from those countries in order to promote administrative efficiency in light of its determination to conduct a full review of the order with respect to the United Arab Emirates. A record of the Commissioners' votes will be available from the Office of the Secretary and at the Commission's website.

Authority: These reviews is being conducted under authority of title VII of the Tariff Act of 1930; this notice is published pursuant to § 207.62 of the Commission's rules.

By order of the Commission.

Issued: February 16, 2022.

Lisa Barton,

Secretary to the Commission.

[FR Doc. 2022–03685 Filed 2–18–22; 8:45 am]

BILLING CODE 7020–02–P

INTERNATIONAL TRADE COMMISSION

Certain Electronic Stud Finders, Metal Detectors and Electrical Scanners

[Investigation No. 337–TA–1221]

Notice of a Final Determination Finding No Violation of Section 337; Termination of the Investigation

AGENCY: U.S. International Trade Commission.

ACTION: Notice.

SUMMARY: Notice is hereby given that the U.S. International Trade Commission has determined to affirm in part, modify in part, and reverse in part the Administrative Law Judge's (''ALJ'') final initial determination (''ID''), issued on October 7, 2021, finding no violation of section 337 in the above-referenced investigation as to three asserted patents. The Commission affirms the ID's determination that no violation of section 337 has occurred based on the importation of certain electronic stud finders, metal detectors, and electrical scanners. This investigation is terminated.

FOR FURTHER INFORMATION CONTACT: Benjamin S. Richards, Esq., Office of the General Counsel, U.S. International Trade Commission, 500 E Street SW, Washington, DC 20436, telephone (202) 708–5453. Copies of non-confidential documents filed in connection with this investigation may be viewed on the Commission's electronic docket (EDIS) at *https://edis.usitc.gov.* For help accessing EDIS, please email *EDIS3Help@usitc.gov.* General information concerning the Commission may also be obtained by accessing its internet server at *https://www.usitc.gov.* Hearing-impaired persons are advised that information on this matter can be obtained by contacting the Commission's TDD terminal on (202) 205–1810.

SUPPLEMENTARY INFORMATION: On October 5, 2020, the Commission instituted this investigation based on a complaint filed on behalf of Zircon Corporation of Campbell, California (''Zircon''). 85 FR 62758–59 (Oct. 5, 2020). The complaint alleged violations of section 337 of the Tariff Act of 1930, as amended, 19 U.S.C. 1337, based upon the importation into the United States, the sale for importation, and the sale within the United States after importation of certain electronic stud finders, metal detectors, and electrical scanners by reason of infringement of one or more claims of U.S. Patent Nos. 6,989,662 (''the '662 patent''), 7,148,703 (''the '703 patent''), 8,604,771 (''the '771 patent''), and 9,475,185 (''the '185 patent''). *Id.* at 62759. The Commission's notice of investigation named as respondents Stanley Black & Decker, Inc. of New Britain, Connecticut, and Black & Decker (U.S.), Inc. of Towson, Maryland (together, ''Respondents''). *Id.* The Office of Unfair Import Investigations is not participating in this investigation. *Id.*

On April 22, 2021, the ALJ issued a claim construction order based on briefs submitted by the parties. *See* Order No. 20. On June 15, 2021, the ALJ granted a motion for summary determination of no infringement concerning the '703 patent, which terminated that patent from the investigation. *See* Order No. 27, *unreviewed by* Comm'n Notice (July 15, 2021).

On October 7, 2021, the ALJ issued the subject ID, which found no violation of section 337 as to any claim of the remaining asserted patents by Respondents. Also, on October 7, 2021, the ALJ issued his recommended determination (''RD'') on remedy and bonding. The ALJ recommended, upon a finding of violation, that the Commission issue a limited exclusion order and impose a bond in the amount of zero percent of the entered value of any covered products imported during the period of Presidential review.

On October 19, 2021, Zircon and Respondents submitted petitions for review of the ID. On October 27, 2021, Zircon and Respondents submitted responses to the petitions.

On December 6, 2021, the Commission issued notice of its determination to review the ID with respect to (1) the ID's infringement findings for the '662 patent; (2) the ID's findings on the technical prong of the domestic industry requirement for the '662 patent; (3) the ID's obviousness findings for the '662 patent; (4) the ID's infringement findings for the '771 patent; (5) the ID's anticipation and obviousness findings for the '771 patent; (6) the ID's claim construction and infringement findings for the '185

patent; (7) the ID's anticipation and obviousness findings for the '185 patent; and (8) the ID's findings on the economic prong of the domestic industry requirement. In connection with its review of the ID, the Commission sought briefing from the parties on several questions germane to the issues on review and on remedy, bonding, and the public interest.

On December 23, 2021, the parties submitted briefs responding to the questions posed in the Commission's Notice of Review and on remedy, the public interest, and bond. Thereafter, on January 7, 2022, each submitted a reply to the other's brief on review.

Having considered the parties' submissions, the ID, and the record in this investigation, the Commission has determined that no violation of section 337 has occurred based on Respondents' importation, sale for importation, or sale after importation of certain electronic stud finders, metal detectors, and electrical scanners into the United States. The Commission has further determined to affirm, modify, reverse, and take no position on certain portions of the ID, as explained in the Commission's opinion issued concurrently herewith. This investigation is terminated.

The Commission vote for this determination took place on February 15, 2022.

The authority for the Commission's determination is contained in section 337 of the Tariff Act of 1930, as amended (19 U.S.C. 1337), and in part 210 of the Commission's Rules of Practice and Procedure (19 CFR 210).

By order of the Commission.

Issued: February 15, 2022.

Lisa Barton,

Secretary to the Commission.

[FR Doc. 2022–03684 Filed 2–18–22; 8:45 am]

BILLING CODE 7020–02–P

DEPARTMENT OF JUSTICE

Office of Justice Programs

[OJP (NIJ) Docket No. 1795]

Criminal Justice Chatbot Market Survey

AGENCY: National Institute of Justice (NIJ), Justice.

ACTION: Notice of request for information.

SUMMARY: The National Institute of Justice (NIJ) is soliciting information in an upcoming Criminal Justice Testing and Evaluation Consortium (CJTEC) report that will provide a functional overview of how criminal justice stakeholders (*i.e.,* law enforcement, courts, and correctional agencies) can implement chatbots. This report is a follow-on to *Chatbots in the Criminal Justice System;* a report that provides an overview of chatbot technology and examples in the criminal justice system. This RFI is seeking information about best practices for the development and implementation of chatbots in the criminal justice system. The resulting report will educate criminal justice agencies on implementation pathways and will highlight selected chatbot developers and providers with previous experience specific to the criminal justice system or local government. The goal of the report is to be a resource for stakeholders to reference when considering their chatbot development plans.

DATES: Emailed responses must be received (and mailed responses postmarked) by 5:00 p.m. Eastern Time on April 8, 2022.

ADDRESSES: Responses to this request may be submitted electronically by email to Eric Vetter at *evetter@rti.org* with the subject line ''Criminal Justice Chatbot Market Survey Federal Register Response.'' Responses may also be sent by mail to the following address: Criminal Justice Testing and Evaluation Consortium (CJTEC), ATTN: Eric Vetter, Criminal Justice Chatbot Market Survey Federal Register Response, RTI International, P.O. Box 12194, 3040 E Cornwallis Road, Research Triangle Park, NC 27709–2194.

FOR FURTHER INFORMATION CONTACT: For more information on this market survey, please contact Meghan Camello (CJTEC) by telephone at 603–801–5127 or *mcamello@rti.org.* For more information on the NIJ CJTEC, visit *https://nij.ojp.gov/funding/awards/2018-75-cx-k003* and view the description, or contact Steven Schuetz (NIJ) by telephone at 202–514–7663 or at *steven.schuetz@usdoj.gov.* Please note that these are not toll-free telephone numbers.

SUPPLEMENTARY INFORMATION:

Information sought: CJTEC is seeking information and insights into the design, development, and implementation of chatbots in the criminal justice system. Specifically, CJTEC is seeking information about successful implementation that fit one or more of these categories:

- Chatbots designed for the criminal justice community, such as law enforcement, court systems, correctional agencies, and victim service organizations.
- Chatbots designed for other industries or applications that could be applicable to the criminal justice community (*i.e.,* municipal agency).

Usage: Information provided in response to this request may be published in a report on chatbots in the criminal justice system. This RFI is intended to solicit important general information from vendors, developers, industry observers, or the criminal justice community which may lead to later discussions to help understand best practices, case studies, product technical specifications, etc. that might be used in the report.

CJTEC is seeking a response from technology vendors, developers, IT consultancies, or the criminal justice community that includes:

1. Name and description of company/organization.
2. Case studies or user testimonials highlighting criminal justice or similar use cases, including description of product or service.
3. Contact information for a future conversation (name, role, email, phone number).

An independent response should be submitted for each product that respondents would like CJTEC to consider in their report. NIJ encourages respondents to provide information in common file formats, such as Microsoft Word, pdf, or plain text. Each response should include contact information.

Jennifer Scherer,

Acting Director and Principal Deputy Director, National Institute of Justice.

[FR Doc. 2022–03620 Filed 2–18–22; 8:45 am]

BILLING CODE 4410–18–P

DEPARTMENT OF JUSTICE

National Institute of Justice

[OJP (NIJ) Docket No. 1796]

Technologies To Measure Community Perception, Opinion, and/or Satisfaction Related to Law Enforcement: Market Survey

AGENCY: National Institute of Justice (NIJ), Office of Justice Programs, Justice.

ACTION: Notice of request for information.

SUMMARY: The National Institute of Justice (NIJ) is soliciting information for an upcoming Criminal Justice Testing and Evaluation Consortium (CJTEC) report that will provide a functional overview of how law enforcement agencies can utilize technology to measure and monitor community perception, opinion, and/or satisfaction

related to law enforcement, to improve police performance and overall community-police relations. The report will highlight the providers and vendors that are developing and offering technologies that measure/monitor the community's perception, opinion, and/or satisfaction related to law enforcement. The report will also consider sentiment monitoring tools in terms of the broader context of the rapidly evolving marketplace for sentiment analysis products, including the monitoring of customers' perception of brands.

DATES: Emailed responses must be received (and mailed responses postmarked) by 5:00 p.m. Eastern Time on April 8, 2022.

ADDRESSES: Responses to this request may be submitted electronically by email, with the subject line ''Technologies to Measure Community Perception, Opinion, and/or Satisfaction related to Law Enforcement: Market Survey **Federal Register** Response'' to Meghan Camello at *mcamello@rti.org*_ . Responses may also be sent by mail to the following address: Criminal Justice Testing and Evaluation Consortium (CJTEC), ATTN: Meghan Camello, Technologies to Measure Community Perception, Opinion, and/or Satisfaction related to Law Enforcement: Market Survey **Federal Register** Response, RTI International, P.O. Box 12194, 3040 E Cornwallis Road, Research Triangle Park, NC 27709–2194.

FOR FURTHER INFORMATION CONTACT: For more information on this market survey, please contact Meghan Camello (CJTEC) by telephone at 603–801–5127 or *mcamello@rti.org*. For more information on the NIJ CJTEC, visit *https://nij.ojp.gov/funding/awards/2018-75-cx-k003* and view the description, or contact Steven Schuetz (NIJ) by telephone at 202–514–7663 or at *steven.schuetz@usdoj.gov.* Please note that these are not toll-free telephone numbers.

SUPPLEMENTARY INFORMATION:

Information sought: CJTEC is seeking information on products, such as sentiment analysis, measuring, and monitoring technologies, that may be applicable to law enforcement agencies. Specifically, CJTEC is seeking solutions that fit one or more of these categories:

- Tools, technology, and products designed for the law enforcement community to measure or monitor community perception, sentiment, opinion, and/or satisfaction
- Products designed as consumer/corporate sentiment analysis and monitoring technologies that could be applicable to or adapted for the law enforcement community
- Products designed for brand management that may be applicable to or adapted for the law enforcement community

Usage: Information provided in response to this request may be selected for inclusion by CJTEC in a public report on technologies that measure and monitor community perception, opinion, and/or satisfaction related to law enforcement. This RFI is intended to solicit important general information from vendors, which may lead to later discussions to help understand best practices, case studies, product technical specifications, etc. that might be used in the report.

CJTEC is seeking a response from technology vendors that includes:

1. Name and description of product
2. Case studies or user testimonials highlighting law enforcement or similar use cases
3. Research studies on efficacy of the product
4. Contact information for a future conversation (name, role, email, phone number)

An independent response should be submitted for each product that respondents would like CJTEC to consider for inclusion in the publication. NIJ encourages respondents to provide information in common file formats, such as Microsoft Word, pdf, or plain text. Each response should include contact information.

Jennifer Scherer,

Acting Director and Principal Deputy Director, National Institute of Justice.

[FR Doc. 2022–03618 Filed 2–18–22; 8:45 am]

BILLING CODE 4410–18–P

DEPARTMENT OF LABOR

Mine Safety and Health Administration

Petition for Modification of Application of Existing Mandatory Safety Standards

AGENCY: Mine Safety and Health Administration, Labor.

ACTION: Notice.

SUMMARY: This notice is a summary of four petitions for modification submitted to the Mine Safety and Health Administration (MSHA) by the parties listed below.

DATES: All comments on the petitions must be received by MSHA's Office of Standards, Regulations, and Variances on or before March 24, 2022.

ADDRESSES: You may submit your comments including the docket number of the petition by any of the following methods:

1. *Email: zzMSHA-comments@dol.gov.* Include the docket number of the petition in the subject line of the message.
2. *Facsimile:* 202–693–9441.
3. *Regular Mail or Hand Delivery:* Regular Mail or Hand Delivery: MSHA, Office of Standards, Regulations, and Variances, 201 12th Street South, Suite 4E401, Arlington, Virginia 22202–5452, Attention: S. Aromie Noe, Acting Director, Office of Standards, Regulations, and Variances. MSHA will consider only comments postmarked by the U.S. Postal Service or proof of delivery from another delivery service such as UPS or Federal Express on or before the deadline for comments. Persons delivering documents are required to check in at the receptionist's desk in Suite 4E401. Individuals may inspect copies of the petition and comments during normal business hours at the address listed above. Before visiting MSHA in person, call 202–693–9455 to make an appointment in keeping with the Department of Labor's COVID–19 policy. Special health precautions may be required.

FOR FURTHER INFORMATION CONTACT: S. Aromie Noe, Office of Standards, Regulations, and Variances at 202–693–9440 (voice), *petitionsformodification@dol.gov* (email), or 202–693–9441 (facsimile). [These are not toll-free numbers.]

SUPPLEMENTARY INFORMATION: Section 101(c) of the Federal Mine Safety and Health Act of 1977 and Title 30 of the Code of Federal Regulations (CFR) part 44 govern the application, processing, and disposition of petitions for modification.

I. Background

Section 101(c) of the Federal Mine Safety and Health Act of 1977 (Mine Act) allows the mine operator or representative of miners to file a petition to modify the application of any mandatory safety standard to a coal or other mine if the Secretary of Labor determines that:

1. An alternative method of achieving the result of such standard exists which will at all times guarantee no less than the same measure of protection afforded the miners of such mine by such standard; or
2. The application of such standard to such mine will result in a diminution of safety to the miners in such mine.
3. In addition, sections 44.10 and 44.11 of 30 CFR establish the

requirements for filing petitions for modification.

II. Petition for Modification

Docket Number: M–2021–045–C.

Petitioner: Signal Peak Energy, LLC, 100 Portal Drive, Roundup, Montana 59072.

Mine: Bull Mountains Mine No. 1, MSHA ID No. 24–01950, located in Musselshell County, Montana.

Regulation Affected: 30 CFR 75.1002(a) (Installation of electric equipment and conductors; permissibility).

Modification Request: The petitioner requests a modification of 30 CFR 75.1002(a) to permit the use of 3M Versaflo™ TR–800 Powered Air Purifying Respirators (PAPR) within 150 feet of the longwall face.

The petitioner states that:

1. The petitioner uses 3M Airstream™ Headgear-Mounted Powered Air Purifying Respirators to protect its longwall miners from exposure to respirable dust.

2. The 3M Airstream™ system and replacement components production have been discontinued since June 1, 2020. Currently, there are no replacement PAPRs meeting the MSHA standards for permissibility relative to electronic equipment used in potentially explosive atmospheres of underground coal mines.

3. Explosive levels of methane or other explosive gases have never been encountered at Bull Mountains Mine No. 1.

4. The 3M Versaflo™ TR–800 PAPR is not approved by MSHA as permissible equipment, and 3M is not pursuing approval.

5. 3M offers the 3M Versaflo™ TR–800 Intrinsically Safe PAPR motor/blower and battery which qualify as intrinsically safe in the U.S., Canada, and other countries accepting the International Electrotechnical Commission System for Certification to Standards Relating to Equipment for Use in Explosive Atmospheres (IECEx). The 3M Versaflo™ TR–800 PAPR blower is UL-certified with an intrinsically safe (IS) rating of Division 1: IS Class I, II, III; Division 1 (includes Division 2) Groups C, D, E, F, G; T4 under the most current standard (UL 60079, 6th Edition, 2013); ATEX Ce1tified with an IS rating of ia. The TR-800 is rated and marked with Ex ia I Ma, Ex ia IIB T4 Ga, Ex ia me 135oC Da, –20oC <Ta6. The petitioner states that the International Society of Automation/American National Standards Institute (ISA/ANSI) standards are an acceptable alternative to ACRI2001 and provide an equivalent level of protection.

The petitioner proposes the following alternative method:

1. When not in operation, batteries for the 3M Versaflo™ TR–800 PAPR shall be charged on the surface or underground in intake air and not within 150 feet of a worked-out area.

2. The batteries shall be inspected and changed at the surface or underground in intake air.

3. The 3M TR–644N 4 station or the 3M TR–641N battery chargers shall be used.

4. The 3M Versaflo™ TR–800 PAPR shall exclusively use the TR–830 battery pack.

5. Miners shall be trained how to safely use, care for, and inspect the 3M Versaflo™ TR–800 PAPRs.

6. Each 3M Versaflo™ TR–800 PAPR shall be assessed for physical damage and integrity of the unit's case before each use.

7. The 3M Versaflo™ TR–800 PAPR shall not be used if methane levels are found to be at or above 1.0 percent. If the methane levels are higher than 1.0 percent, the equipment shall immediately be de-energized and withdrawn from the affected areas.

8. The 3M Versaflo™ TR–800 PAPR shall not be used in continuous miner sections alongside proximity detection systems.

9. All qualified persons and miners affected shall receive specific training on the terms and conditions of this petition before using the equipment within 150 feet of the longwall face. A record of any training in this petition shall be kept and provided upon request by an authorized representative of MSHA.

The petitioner asserts that the alternative method proposed will at all times guarantee no less than the same measure of protection afforded the miners under the mandatory standard.

Docket Number: M–2021–046–C.

Petitioner: Prairie State Generating Company, LLC, 4274 County Highway 12, Marissa, Illinois, 62257.

Mine: Lively Grove Mine, MSHA ID No. 11–03193, located in St. Clair County, Illinois.

Regulation Affected: 30 CFR 75.1909(b)(6) (Nonpermissible diesel-powered equipment; design and performance requirements).

Modification Request: The petitioner proposes an alternate method in lieu of service brakes on each wheel. Specifically, the petitioner requests to use the dual brake systems on the four rear wheels of the diesel-powered six wheeled Getman Roadbuilder, Model RDG–1540S and Getman Roadbuilder Model RDG–1004 underground road graders operated at the mine.

The petitioner states that:

1. A Proposed Decision and Order was issued on October 19, 2010, granting the petitioner's modification request concerning 30 CFR 75.1909(b)(6) and allowing the petitioner to use the dual brake system on the four rear wheels of the Getman Roadbuilder, Model RDG–1540S.

2. The petitioner recently purchased an additional underground road grader, Getman Roadbuilder Model RDG–1004, serial number 6760.

3. The graders both have dual brake systems on the four rear wheels and are designed to prevent loss of braking due to a single component failure. Each of the brake systems features an accumulator pressure gauge and a low-pressure warning light. The graders are also equipped with: a spring-applied, hydraulic-release wet disc park and supplemental brake; transmission neutralizer; and test button for park brake testing. The independent braking systems are designed to operate even when oil, air, electrical, or transmission pressure fails.

The petitioner proposes:

1. The petitioner will limit the speed of the diesel graders to 10 miles per hour (MPH) in either forward or reverse. This will be accomplished by the following:

a. The shifter for each grader is permanently physically blocked to prevent the grader from being put into 4th gear.

b. The transmission on each grader is modified internally so that the shifter cannot put the grader into 4th gear.

c. Operation of each road grader in gears one through three will limit the speed to 10 miles per hour (MPH) or less.

2. Road grader operators will be trained concerning the provisions of this petition, and this training will be documented on an MSHA 5000–23 form. Grader operator training will include the following:

a. The braking limitations of each road grader.

b. The speed of each road grader is limited to 10 MPH or less.

c. Fourth gear is not available for either road grader.

d. As the angle of a road or slope increases, speed should be reduced by operating at a lower gear.

e. As an alternate means to control the speed of either road grader, the moldboard can be lowered to the mine floor.

The petitioner asserts that the alternative method proposed will at all times guarantee no less than

the same measure of protection afforded the miners under the mandatory standard.

Docket Number: M–2022–001–C.

Petitioner: Signal Peak Energy, LLC, 100 Portal Drive, Roundup, Montana 59072.

Mine: Bull Mountains Mine No. 1, MSHA ID No. 24–01950, located in Musselshell County, Montana.

Regulation Affected: 30 CFR 75.500(d) (Permissible electric equipment.)

Modification Request: The petitioner requests a modification of 30 CFR 75.500(d) to permit the 3M Versaflo™ TR–800 Powered Air Purifying Respirators (PAPR) to be taken into or used inby the last crosscut.

The petitioner states that:

1. The petitioner uses 3M Airstream™ Headgear-Mounted Powered Air Purifying Respirators to protect its longwall miners from exposure to respirable dust.

2. The 3M Airstream™ system and replacement components production have been discontinued since June 1, 2020. Currently, there are no replacement PAPRs meeting the MSHA standards for permissibility relative to electronic equipment used in potentially explosive atmospheres of underground coal mines.

3. Explosive levels of methane or other explosive gases have never been encountered at Bull Mountains Mine No. 1.

4. The 3M Versaflo™ TR–800 PAPR is not approved by MSHA as permissible equipment, and 3M is not pursuing approval.

5. 3M offers the 3M Versaflo™ TR–800 Intrinsically Safe PAPR motor/blower and battery which qualify as intrinsically safe in the U.S., Canada, and other countries accepting the International Electrotechnical Commission System for Certification to Standards Relating to Equipment for Use in Explosive Atmospheres (IECEx). The 3M Versaflo™ TR–800 PAPR blower is UL-certified with an intrinsically safe (IS) rating of Division 1: IS Class I, II, III; Division 1 (includes Division 2) Groups C, D, E, F, G; T4 under the most current standard (UL 60079, 6th Edition, 2013); ATEX Ce1tified with an IS rating of ia. The TR–800 is rated and marked with Ex ia I Ma, Ex ia IIB T4 Ga, Ex ia me 135oC Da, −20oC <Ta<+55oC, under the current standard (International Electrotechnical Commission 60079).

6. The petitioner states that the International Society of Automation/American National Standards Institute (ISA/ANSI) standards are an acceptable alternative to ACRI2001 and provide an equivalent level of protection.

The petitioner proposes the following alternative method:

1. When not in operation, batteries for the 3M Versaflo™ TR–800 PAPR shall be charged on the surface or underground in intake air and not within 150 feet of a worked-out area.

2. The batteries shall be inspected and changed at the surface or underground in intake air.

3. The 3M TR–644N 4 station or the 3M TR–641N battery chargers shall be used.

4. The 3M Versaflo™ TR–800 PAPR shall exclusively use the TR–830 battery pack.

5. Miners shall be trained how to safely use, care for, and inspect the 3M Versaflo™ TR–800 PAPRs.

6. The 3M Versaflo™ TR–800 PAPR shall be assessed for physical damage and integrity of the unit's case before each use.

7. The 3M Versaflo™ TR–800 PAPR shall not be used if methane levels are found to be at or above 1.0 percent. If the methane levels are higher than 1.0 percent, the equipment shall immediately be de-energized and withdrawn from the affected areas.

8. The 3M Versaflo™ TR–800 PAPR shall not be used in continuous miner sections alongside proximity detection systems.

9. All qualified persons and miners affected shall receive specific training on the terms and conditions of this petition before taking or using the equipment inby the last crosscut. A record of any training in the petition shall be kept and provided upon request by an Authorized Representative.

The petitioner asserts that the alternative method proposed will at all times guarantee no less than the same measure of protection afforded the miners under the mandatory standard.

Docket Number: M–2022–002–C.

Petitioner: Signal Peak Energy, LLC, 100 Portal Drive, Roundup, Montana 59072.

Mine: Bull Mountains Mine No. 1, MSHA ID No. 24–01950, located in Musselshell County, Montana.

Regulation Affected: 30 CFR 75.50701(a) (Electric equipment other than power-connection points; outby the last open crosscut; return air; permissibility requirements.)

Modification Request: The petitioner requests a modification of 30 CFR 75.50701(a) to permit the 3M Versaflo™ TR–800 Powered Air Purifying Respirators (PAPR) to be used in return air outby the last open crosscut.

The petitioner states that:

1. The petitioner uses 3M Airstream™ Headgear-Mounted Powered Air Purifying Respirators to protect its longwall miners from exposure to respirable dust.

2. The 3M Airstream™ system and replacement components production have been discontinued since June 1, 2020. Currently, there are no replacement PAPRs meeting the MSHA standards for permissibility relative to electronic equipment used in potentially explosive atmospheres of underground coal mines.

3. Explosive levels of methane or other explosive gases have never been encountered at Bull Mountains Mine No. 1.

4. The 3M Versaflo™ TR–800 PAPR is not approved by MSHA as permissible equipment, and 3M is not pursuing approval.

5. 3M offers the 3M Versaflo™ TR–800 Intrinsically Safe PAPR motor/blower and battery which qualify as intrinsically safe in the U.S., Canada, and other countries accepting the International Electrotechnical Commission System for Certification to Standards Relating to Equipment for Use in Explosive Atmospheres (IECEx). The 3M Versaflo™ TR–800 PAPR blower is UL-certified with an intrinsically safe (IS) rating of Division 1: IS Class I, II, III; Division 1 (includes Division 2) Groups C, D, E, F, G; T4 under the most current standard (UL 60079, 6th Edition, 2013); ATEX Ce1tified with an IS rating of ia. The TR-800 is rated and marked with Ex ia I Ma, Ex ia IIB T4 Ga, Ex ia me 135oC Da, −20oC <Ta<+55oC, under the current standard (International Electrotechnical Commission 60079).

6. The petitioner states that the International Society of Automation/American National Standards Institute (ISA/ANSI) standards are an acceptable alternative to ACRI2001 and provide an equivalent level of protection.

The petitioner proposes the following alternative method:

1. When not in operation, batteries for the 3M Versaflo™ TR–800 PAPR shall be charged on the surface or underground in intake air and not within 150 feet of a worked-out area.

2. The batteries shall be inspected and changed at the surface or underground in intake air.

3. The 3M TR–644N 4 station or the 3M TR–641N battery chargers shall be used.

4. The 3M Versaflo™ TR–800 PAPR shall exclusively use the TR–830 battery pack.

5. Miners shall be trained how to safely use, care for, and inspect the 3M Versaflo™ TR–800 PAPRs.

6. The 3M Versaflo™ TR–800 PAPR shall be assessed for physical damage and integrity of the unit's case before each use.

7. The 3M Versaflo™ TR–800 PAPR shall not be used if methane levels are found to be at or above 1.0 percent. If the methane levels are higher than 1.0 percent, the equipment shall immediately be de-energized and withdrawn from the affected areas.

8. The 3M Versaflo™ TR–800 PAPR shall not be used in continuous miner sections alongside proximity detection systems.

9. All qualified persons and miners affected shall receive specific training on the terms and conditions of the petition before using the equipment in to be used in return air outby the last open crosscut. A record of any training in the petition shall be kept and provided upon request by an Authorized Representative.

The petitioner asserts that the alternative method proposed will at all times guarantee no less than the same measure of protection afforded the miners under the mandatory standard.

Song-ae Aromie Noe,

Acting Director, Office of Standards, Regulations, and Variances.

[FR Doc. 2022–03686 Filed 2–18–22; 8:45 am]

BILLING CODE 4520–43–P

NUCLEAR REGULATORY COMMISSION

[NRC–2022–0043]

Monthly Notice; Applications and Amendments to Facility Operating Licenses and Combined Licenses Involving No Significant Hazards Considerations

AGENCY: Nuclear Regulatory Commission.

ACTION: Monthly notice.

SUMMARY: Pursuant to section 189.a.(2) of the Atomic Energy Act of 1954, as amended (the Act), the U.S. Nuclear Regulatory Commission (NRC) is publishing this regular monthly notice. The Act requires the Commission to publish notice of any amendments issued, or proposed to be issued, and grants the Commission the authority to issue and make immediately effective any amendment to an operating license or combined license, as applicable, upon a determination by the Commission that such amendment involves no significant hazards consideration (NSHC), notwithstanding the pendency before the Commission of a request for a hearing from any person. This monthly notice includes all amendments issued, or proposed to be issued, from January 7, 2022, to February 3, 2022. The last monthly notice was published on January 25, 2022.

DATES: Comments must be filed by March 24, 2022. A request for a hearing or petitions for leave to intervene must be filed by April 25, 2022.

ADDRESSES: You may submit comments by any of the following methods; however, the NRC encourages electronic comment submission through the Federal rulemaking website:

- *Federal rulemaking website:* Go to *https://www.regulations.gov* and search for Docket ID NRC–2022–0043. Address questions about Docket IDs in *Regulations.gov* to Stacy Schumann; telephone: 301–415–0624; email: *Stacy.Schumann@nrc.gov.* For technical questions, contact the individual listed in the **FOR FURTHER INFORMATION CONTACT** section of this document.
- *Mail comments to:* Office of Administration, Mail Stop: TWFN–7–A60M, U.S. Nuclear Regulatory Commission, Washington, DC 20555–0001, ATTN: Program Management, Announcements and Editing Staff.

For additional direction on obtaining information and submitting comments, see ''Obtaining Information and Submitting Comments'' in the **SUPPLEMENTARY INFORMATION** section of this document.

FOR FURTHER INFORMATION CONTACT: Kay Goldstein, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, Washington, DC 20555–0001, telephone: 301–415–1506, email: *Kay.Goldstein@nrc.gov.*

SUPPLEMENTARY INFORMATION:

I. Obtaining Information and Submitting Comments

A. Obtaining Information

Please refer to Docket ID NRC–2022–0043, facility name, unit number(s), docket number(s), application date, and subject when contacting the NRC about the availability of information for this action. You may obtain publicly available information related to this action by any of the following methods:

- *Federal Rulemaking Website:* Go to *https://www.regulations.gov* and search for Docket ID NRC–2022–0043.
- *NRC's Agencywide Documents Access and Management System (ADAMS):* You may obtain publicly available documents online in the ADAMS Public Documents collection at *https://www.nrc.gov/reading-rm/adams.html.* To begin the search, select ''Begin Web-based ADAMS Search.'' For problems with ADAMS, please contact the NRC's Public Document Room (PDR) reference staff at 1–800–397–4209, 301–415–4737, or by email to *PDR.Resource@nrc.gov.* For the convenience of the reader, instructions about obtaining materials referenced in this document are provided in the ''Availability of Documents'' section.
- *NRC's PDR:* You may examine and purchase copies of public documents, by appointment, at the NRC's PDR, Room P1 B35, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852. To make an appointment to visit the PDR, please send an email to *PDR.Resource@nrc.gov* or call 1–800–397–4209 or 301–415–4737, between 8:00 a.m. and 4:00 p.m. (ET), Monday through Friday, except Federal holidays.

B. Submitting Comments

The NRC encourages electronic comment submission through the Federal rulemaking website (*https://www.regulations.gov*). Please include Docket ID NRC–2022–0043, facility name, unit number(s), docket number(s), application date, and subject, in your comment submission.

The NRC cautions you not to include identifying or contact information that you do not want to be publicly disclosed in your comment submission. The NRC will post all comment submissions at *https://www.regulations.gov* as well as enter the comment submissions into ADAMS. The NRC does not routinely edit comment submissions to remove identifying or contact information.

If you are requesting or aggregating comments from other persons for submission to the NRC, then you should inform those persons not to include identifying or contact information that they do not want to be publicly disclosed in their comment submission. Your request should state that the NRC does not routinely edit comment submissions to remove such information before making the comment submissions available to the public or entering the comment into ADAMS.

II. Notice of Consideration of Issuance of Amendments to Facility Operating Licenses and Combined Licenses and Proposed No Significant Hazards Consideration Determination

For the facility-specific amendment requests shown in this notice, the Commission finds that the licensees' analyses provided, consistent with section 50.91 of title 10 of *the Code of Federal Regulations* (10 CFR), are sufficient to support the proposed determinations that these amendment requests involve NSHC. Under the Commission's regulations in 10 CFR 50.92, operation of the facilities in accordance with the proposed

amendments would not (1) involve a significant increase in the probability or consequences of an accident previously evaluated; or (2) create the possibility of a new or different kind of accident from any accident previously evaluated; or (3) involve a significant reduction in a margin of safety.

The Commission is seeking public comments on these proposed determinations. Any comments received within 30 days after the date of publication of this notice will be considered in making any final determinations.

Normally, the Commission will not issue the amendments until the expiration of 60 days after the date of publication of this notice. The Commission may issue any of these license amendments before expiration of the 60-day period provided that its final determination is that the amendment involves NSHC. In addition, the Commission may issue any of these amendments prior to the expiration of the 30-day comment period if circumstances change during the 30-day comment period such that failure to act in a timely way would result, for example in derating or shutdown of the facility. If the Commission takes action on any of these amendments prior to the expiration of either the comment period or the notice period, it will publish in the **Federal Register** a notice of issuance. If the Commission makes a final NSHC determination for any of these amendments, any hearing will take place after issuance. The Commission expects that the need to take action on any amendment before 60 days have elapsed will occur very infrequently.

A. Opportunity To Request a Hearing and Petition for Leave To Intervene

Within 60 days after the date of publication of this notice, any persons (petitioner) whose interest may be affected by any of these actions may file a request for a hearing and petition for leave to intervene (petition) with respect to that action. Petitions shall be filed in accordance with the Commission's ''Agency Rules of Practice and Procedure'' in 10 CFR part 2. Interested persons should consult a current copy of 10 CFR 2.309. The NRC's regulations are accessible electronically from the NRC Library on the NRC's website at *https://www.nrc.gov/reading-rm/doc-collections/cfr/.* If a petition is filed, the Commission or a presiding officer will rule on the petition and, if appropriate, a notice of a hearing will be issued.

As required by 10 CFR 2.309(d) the petition should specifically explain the reasons why intervention should be permitted with particular reference to the following general requirements for standing: (1) The name, address, and telephone number of the petitioner; (2) the nature of the petitioner's right to be made a party to the proceeding; (3) the nature and extent of the petitioner's property, financial, or other interest in the proceeding; and (4) the possible effect of any decision or order which may be entered in the proceeding on the petitioner's interest.

In accordance with 10 CFR 2.309(f), the petition must also set forth the specific contentions that the petitioner seeks to have litigated in the proceeding. Each contention must consist of a specific statement of the issue of law or fact to be raised or controverted. In addition, the petitioner must provide a brief explanation of the bases for the contention and a concise statement of the alleged facts or expert opinion that support the contention and on which the petitioner intends to rely in proving the contention at the hearing. The petitioner must also provide references to the specific sources and documents on which the petitioner intends to rely to support its position on the issue. The petition must include sufficient information to show that a genuine dispute exists with the applicant or licensee on a material issue of law or fact. Contentions must be limited to matters within the scope of the proceeding. The contention must be one that, if proven, would entitle the petitioner to relief. A petitioner who fails to satisfy the requirements at 10 CFR 2.309(f) with respect to at least one contention will not be permitted to participate as a party.

Those permitted to intervene become parties to the proceeding, subject to any limitations in the order granting leave to intervene. Parties have the opportunity to participate fully in the conduct of the hearing with respect to resolution of that party's admitted contentions, including the opportunity to present evidence, consistent with the NRC's regulations, policies, and procedures.

Petitions must be filed no later than 60 days from the date of publication of this notice. Petitions and motions for leave to file new or amended contentions that are filed after the deadline will not be entertained absent a determination by the presiding officer that the filing demonstrates good cause by satisfying the three factors in 10 CFR 2.309(c)(1)(i) through (iii). The petition must be filed in accordance with the filing instructions in the ''Electronic Submissions (E-Filing)'' section of this document.

If a hearing is requested, and the Commission has not made a final determination on the issue of NSHC, the Commission will make a final determination on the issue of NSHC. The final determination will serve to establish when the hearing is held. If the final determination is that the amendment request involves NSHC, the Commission may issue the amendment and make it immediately effective, notwithstanding the request for a hearing. Any hearing would take place after issuance of the amendment. If the final determination is that the amendment request involves a significant hazards consideration, then any hearing held would take place before the issuance of the amendment unless the Commission finds an imminent danger to the health or safety of the public, in which case it will issue an appropriate order or rule under 10 CFR part 2.

A State, local governmental body, Federally recognized Indian Tribe, or agency thereof, may submit a petition to the Commission to participate as a party under 10 CFR 2.309(h)(1). The petition should state the nature and extent of the petitioner's interest in the proceeding. The petition should be submitted to the Commission no later than 60 days from the date of publication of this notice. The petition must be filed in accordance with the filing instructions in the ''Electronic Submissions (E-Filing)'' section of this document, and should meet the requirements for petitions set forth in this section, except that under 10 CFR 2.309(h)(2) a State, local governmental body, or Federally recognized Indian Tribe, or agency thereof does not need to address the standing requirements in 10 CFR 2.309(d) if the facility is located within its boundaries. Alternatively, a State, local governmental body, Federally recognized Indian Tribe, or agency thereof may participate as a non-party under 10 CFR 2.315(c).

If a petition is submitted, any person who is not a party to the proceeding and is not affiliated with or represented by a party may, at the discretion of the presiding officer, be permitted to make a limited appearance pursuant to the provisions of 10 CFR 2.315(a). A person making a limited appearance may make an oral or written statement of his or her position on the issues but may not otherwise participate in the proceeding. A limited appearance may be made at any session of the hearing or at any prehearing conference, subject to the limits and conditions as may be imposed by the presiding officer. Details regarding the opportunity to make a limited appearance will be provided by the presiding officer if such sessions are scheduled.

B. Electronic Submissions (E-Filing)

All documents filed in NRC adjudicatory proceedings including documents filed by an interested State, local governmental body, Federally recognized Indian Tribe, or designated agency thereof that requests to participate under 10 CFR 2.315(c), must be filed in accordance with 10 CFR 2.302. The E-Filing process requires participants to submit and serve all adjudicatory documents over the internet, or in some cases, to mail copies on electronic storage media, unless an exemption permitting an alternative filing method, as discussed in this notice, is granted. Detailed guidance on electronic submissions is located in the Guidance for Electronic Submissions to the NRC (ADAMS Accession No. ML13031A056) and on the NRC website at *https://www.nrc.gov/site-help/e-submittals.html.*

To comply with the procedural requirements of E-Filing, at least 10 days prior to the filing deadline, the participant should contact the Office of the Secretary by email at *Hearing.Docket@nrc.gov,* or by telephone at 301–415–1677, to (1) request a digital identification (ID) certificate, which allows the participant (or its counsel or representative) to digitally sign submissions and access the E-Filing system for any proceeding in which it is participating; and (2) advise the Secretary that the participant will be submitting a petition or other adjudicatory document (even in instances in which the participant, or its counsel or representative, already holds an NRC-issued digital ID certificate). Based upon this information, the Secretary will establish an electronic docket for the proceeding if the Secretary has not already established an electronic docket.

Information about applying for a digital ID certificate is available on the NRC's public website at *https://www.nrc.gov/site-help/e-submittals/getting-started.html.* After a digital ID certificate is obtained and a docket created, the participant must submit adjudicatory documents in Portable Document Format. Guidance on submissions is available on the NRC's public website at *https://www.nrc.gov/site-help/electronic-sub-ref-mat.html.* A filing is considered complete at the time the document is submitted through the NRC's E-Filing system. To be timely, an electronic filing must be submitted to the E-Filing system no later than 11:59 p.m. Eastern Time on the due date. Upon receipt of a transmission, the E-Filing system timestamps the document and sends the submitter an email confirming receipt of the document. The E-Filing system also distributes an email that provides access to the document to the NRC's Office of the General Counsel and any others who have advised the Office of the Secretary that they wish to participate in the proceeding, so that the filer need not serve the document on those participants separately. Therefore, applicants and other participants (or their counsel or representative) must apply for and receive a digital ID certificate before adjudicatory documents are filed to obtain access to the documents via the E-Filing system.

A person filing electronically using the NRC's adjudicatory E-Filing system may seek assistance by contacting the NRC's Electronic Filing Help Desk through the ''Contact Us'' link located on the NRC's public website at *https://www.nrc.gov/site-help/e-submittals.html,* by email to *MSHD.Resource@nrc.gov,* or by a toll-free call at 1–866–672–7640. The NRC Electronic Filing Help Desk is available between 9 a.m. and 6 p.m., Eastern Time, Monday through Friday, excluding government holidays.

Participants who believe that they have good cause for not submitting documents electronically must file an exemption request, in accordance with 10 CFR 2.302(g), with their initial paper filing stating why there is good cause for not filing electronically and requesting authorization to continue to submit documents in paper format. Such filings must be submitted in accordance with 10 CFR 2.302(b)–(d). Participants filing adjudicatory documents in this manner are responsible for serving their documents on all other participants. Participants granted an exemption under 10 CFR 2.302(g)(2) must still meet the electronic formatting requirement in 10 CFR 2.302(g)(1), unless the participant also seeks and is granted an exemption from 10 CFR 2.302(g)(1).

Documents submitted in adjudicatory proceedings will appear in the NRC's electronic hearing docket, which is publicly available at *https://adams.nrc.gov/ehd,* unless excluded pursuant to an order of the presiding officer. If you do not have an NRC-issued digital ID certificate as previously described, click ''cancel'' when the link requests certificates and you will be automatically directed to the NRC's electronic hearing dockets where you will be able to access any publicly available documents in a particular hearing docket. Participants are requested not to include personal privacy information such as social security numbers, home addresses, or personal phone numbers in their filings unless an NRC regulation or other law requires submission of such information. With respect to copyrighted works, except for limited excerpts that serve the purpose of the adjudicatory filings and would constitute a Fair Use application, participants should not include copyrighted materials in their submission.

The following table provides the plant name, docket number, date of application, ADAMS accession number, and location in the application of the licensees' proposed NSHC determinations. For further details with respect to these license amendment applications, see the applications for amendment, which are available for public inspection in ADAMS. For additional direction on accessing information related to this document, see the ''Obtaining Information and Submitting Comments'' section of this document.

LICENSE AMENDMENT REQUEST(S)

Constellation Energy Generation, LLC; Limerick Generating Station, Units 1 and 2; Montgomery County, PA	
Docket No(s)	50–352, 50–353.
Application date	March 11, 2021, as supplemented by letter(s) dated May 5, 2021, and December 15, 2021.
ADAMS Accession No	ML21070A412, ML21125A215, and ML21349B364.
Location in Application of NSHC	Pages 18–20 of Attachment 1 to Letter dated December 15, 2021.
Brief Description of Amendment(s)	The license amendment request was originally noticed in the **Federal Register** on August 10, 2021 (86 FR 43690). The notice is being reissued in its entirety to include the revised scope, description of the amendment request, and proposed no significant hazards consideration determination. The proposed amendments would modify the licensing basis by revising the license condition in Appendix C to allow the use of an alternate defense-in-depth categorization process, an alternate pressure boundary categorization process, and an alternate seismic Tier 1 categorization process to allow the implementation of risk-informed categorization and treatment of structures, systems and components in accordance with 10 CFR 50.69.
Proposed Determination	NSHC.

LICENSE AMENDMENT REQUEST(S)—Continued

Name of Attorney for Licensee, Mailing Address	Tamra Domeyer, Associate General Counsel, Constellation Energy Generation, LLC, 4300 Winfield Road, Warrenville, IL 60555.
NRC Project Manager, Telephone Number	V. Sreenivas, 301–415–2597.

Constellation Energy Generation, LLC; Limerick Generating Station, Units 1 and 2; Montgomery County, PA

Docket No(s)	50–352, 50–353.
Application date	December 15, 2021.
ADAMS Accession No	ML21349B378.
Location in Application of NSHC	Pages 27–29 of Attachment 1.
Brief Description of Amendment(s)	The proposed amendments would revise technical specification (TS) surveillance requirements for emergency diesel generator (EDG) frequency and voltage tolerances and for emergency core cooling system pump flows. Specifically, the amendments would revise certain frequency and voltage acceptance criteria for steady-state EDG surveillance requirements under TS 3/4.8.1, ''A.C. Sources—Operating.'' The proposed changes are consistent with WCAP–17308–NP–A .Rev 0, ''Treatment of Diesel Generator (DG) Technical Specification Frequency and Voltage Tolerances,'' dated July 2017. The proposed amendments would also revise the flow acceptance criteria of the emergency core cooling system (ECCS) pump surveillance requirements under TS3/4.5.1, ''ECCS-Operating.''
Proposed Determination	NSHC.
Name of Attorney for Licensee, Mailing Address	Tamra Domeyer, Associate General Counsel, Constellation Energy Generation, LLC, 4300 Winfield Road, Warrenville, IL 60555.
NRC Project Manager, Telephone Number	V. Sreenivas, 301–415–2597.

Duke Energy Carolinas, LLC; Catawba Nuclear Station, Units 1 and 2; York County, SC; Duke Energy Carolinas, LLC; McGuire Nuclear Station, Units 1 and 2; Mecklenburg County, NC; Duke Energy Carolinas, LLC; Oconee Nuclear Station, Units 1, 2, and 3; Oconee County, SC; Duke Energy Progress, LLC; Brunswick Steam Electric Plant, Units 1 and 2; Brunswick County, NC; Duke Energy Progress, LLC; H.B. Robinson Steam Electric Plant, Unit No. 2; Darlington County, SC; Duke Energy Progress, LLC; Shearon Harris Nuclear Power Plant, Unit 1; Wake and Chatham Counties, NC; Duke Energy Carolinas, LLC; William States Lee III Nuclear Station, Units 1 and 2; Cherokee County, SC.

Docket No(s)	50–325, 50–324, 50–413, 50–414, 50–400, 50–369, 50–370, 50–269, 50–270, 50–287, 50–261, 52–018, 52–019.
Application date	December 14, 2021.
ADAMS Accession No	ML21348A003.
Location in Application of NSHC	Pages 16–18 of Enclosure 1.
Brief Description of Amendment(s)	The proposed amendments would relocate the Duke Energy Common Emergency Operations Facility (EOF) from 526 South Church Street, Charlotte, NC, to 9700 David Taylor Drive, Charlotte, NC. The new location is approximately nine air miles from the current location. Since the proposed change to the EOF's location results in the EOF being greater than 25 miles from any of the Duke Energy nuclear sites, NRC approval is required per 10 CFR part 50 appendix E, IV.E.8.b.
Proposed Determination	NSHC.
Name of Attorney for Licensee, Mailing Address	Tracey Mitchell LeRoy, Deputy General Counsel, Duke Energy Corporation, 550 South Tryon Street, Mail Code DEC45A, Charlotte, NC 28202.
NRC Project Manager, Telephone Number	Andrew Hon, 301–415–8480.

Duke Energy Carolinas, LLC; Catawba Nuclear Station, Units 1 and 2; York County, SC; Duke Energy Carolinas, LLC; McGuire Nuclear Station, Units 1 and 2; Mecklenburg County, NC; Duke Energy Carolinas, LLC; Oconee Nuclear Station, Units 1, 2, and 3; Oconee County, SC; Duke Energy Progress, LLC; Brunswick Steam Electric Plant, Units 1 and 2; Brunswick County, NC; Duke Energy Progress, LLC; H.B. Robinson Steam Electric Plant, Unit No. 2; Darlington County, SC; Duke Energy Progress, LLC; Shearon Harris Nuclear Power Plant, Unit 1; Wake and Chatham Counties, NC

Docket No(s)	50–325, 50–324, 50–413, 50–414, 50–400, 50–369, 50–370, 50–269, 50–270, 50–287, 50–261.
Application date	January 18, 2022.
ADAMS Accession No	ML22018A236.
Location in Application of NSHC	Pages 9–11 of Enclosure 1.
Brief Description of Amendment(s)	The proposed amendments would modify certain technical specification (TS) surveillance requirements (SRs) by adding exceptions to consider the SR met when automatic valves or dampers are locked, sealed, or otherwise secured in the actuated position, in order to consider the SR met based on TS Task Force (TSTF) Traveler TSTF–541, Revision 2, ''Add Exceptions to Surveillance Requirements for Valves and Dampers Locked in the Actuated Position'' (ADAMS Accession No. ML19240A315), and the associated NRC safety evaluation for TSTF–541, Revision 2 (ADAMS Accession No. ML19323E926).
Proposed Determination	NSHC.
Name of Attorney for Licensee, Mailing Address	Kathryn B. Nolan, Deputy General Counsel, Duke Energy Corporation, 550 South Tryon Street (DEC45A), Charlotte, NC 28202.
NRC Project Manager, Telephone Number	Luke Haeg, 301–415–0272.

Duke Energy Carolinas, LLC; McGuire Nuclear Station, Units 1 and 2; Mecklenburg County, NC

Docket No(s)	50–369, 50–370.
Application date	December 20, 2021.
ADAMS Accession No	ML21355A362.
Location in Application of NSHC	Pages 9 and 10 of Enclosure.
Brief Description of Amendment(s)	The proposed amendments would revise McGuire's Unit 1 and 2 Technical Specification 3.4.3, ''RCS Pressure and Temperature (P/T) Limits,'' to reflect that Unit 1's P/T limit curves are applicable up to 54 effective full power years (EFPY) and that Unit 2's P/T limit curves are applicable up to 38.6 EFPY.
Proposed Determination	NSHC.
Name of Attorney for Licensee, Mailing Address	Tracey Mitchell LeRoy, Deputy General Counsel, Duke Energy Corporation, 550 South Tryon Street, Mail Code DEC45A, Charlotte, NC 28202.
NRC Project Manager, Telephone Number	John Klos, 301–415–5136.

Duke Energy Progress, LLC; H.B. Robinson Steam Electric Plant, Unit No. 2; Darlington County, SC

Docket No(s)	50–261.
Application date	December 9, 2021, as supplemented by letter dated January 6, 2022.
ADAMS Accession No	ML21343A047, ML22006A240.
Location in Application of NSHC	Pages 2–3 of the Enclosure.

LICENSE AMENDMENT REQUEST(S)—Continued

Brief Description of Amendment(s)	The proposed amendment would adopt Technical Specifications Task Force (TSTF) Traveler TSTF–577, Revision 1, ''Revised Frequencies for Steam Generator Tube Inspections.'' Additionally, Duke Energy proposed a steam generator tube inspection period of 72 effective full power months for the Robinson inspection period that began December 8, 2020. This is a variation from the TS changes described in TSTF–577 because the enhanced probe inspection method has not previously been used for steam generator tube inspections at Robinson. For all future steam generator tube inspections, the enhanced probe inspection method will be utilized.
Proposed Determination	NSHC.
Name of Attorney for Licensee, Mailing Address	Tracey Mitchell LeRoy, Deputy General Counsel, Duke Energy Corporation, 550 South Tryon Street, Mail Code DEC45A, Charlotte, NC 28202.
NRC Project Manager, Telephone Number	Tanya Hood, 301–415–1387.

Duke Energy Progress, LLC; H.B. Robinson Steam Electric Plant, Unit No. 2; Darlington County, SC

Docket No(s)	50–261.
Application date	December 9, 2021.
ADAMS Accession No	ML21343A087.
Location in Application of NSHC	Pages 5–6 of the Enclosure 1.
Brief Description of Amendment(s)	The proposed amendment would revise Technical Specification (TS) 3.4.3, ''RCS [Reactor Coolant System] Pressure and Temperature (P/T) Limits.'' Specifically, a portion of TS Figure 3.4.3–2 (P/T limit cooldown curves) is being corrected because it does not reflect the data approved in Amendment No. 248.
Proposed Determination	NSHC.
Name of Attorney for Licensee, Mailing Address	Tracey Mitchell LeRoy, Deputy General Counsel, Duke Energy Corporation, 550 South Tryon Street, Mail Code DEC45A, Charlotte, NC 28202.
NRC Project Manager, Telephone Number	Tanya Hood, 301–415–1387.

Energy Harbor Nuclear Corp. and Energy Harbor Nuclear Generation LLC; Beaver Valley Power Station, Units 1 and 2; Beaver County, PA

Docket No(s)	50–334, 50–412.
Application date	September 15, 2021.
ADAMS Accession No	ML21258A319.
Location in Application of NSHC	Pages 3–5 of Enclosure.
Brief Description of Amendment(s)	Energy Harbor Nuclear Corp. requests adoption of Technical Specifications Task Force (TSTF) Traveler, TSTF–577–A, Revision 1, ''Revised Frequencies for Steam Generator Tube Inspections.'' The technical specifications related to steam generator tube inspections and reporting would be revised based on operating history.
Proposed Determination	NSHC.
Name of Attorney for Licensee, Mailing Address	Rick Giannantonio, General Counsel, Energy Harbor Nuclear Corp., Mail Stop A–GO–15, 76 South Main Street, Akron, OH 44308.
NRC Project Manager, Telephone Number	Sujata Goetz, 301–415–8004.

Energy Northwest; Columbia Generating Station; Benton County, WA

Docket No(s)	50–397.
Application date	November 9, 2021.
ADAMS Accession No	ML21314A224.
Location in Application of NSHC	Pages 24–25 of the Enclosure.
Brief Description of Amendment(s)	The proposed amendment would modify the Columbia Generating Station licensing basis by the addition of a license condition to allow for the implementation of the provisions of 10 CFR 50.69, ''Risk-informed categorization and treatment of structures, systems and components for nuclear power reactors.''
Proposed Determination	NSHC.
Name of Attorney for Licensee, Mailing Address	Kathleen Galioto, Assistant General Counsel, Energy Northwest, MD 1020, P.O. Box 968, Richland, WA 99352.
NRC Project Manager, Telephone Number	Mahesh Chawla, 301–415–8371.

Entergy Operations, Inc.; Arkansas Nuclear One, Unit 1; Pope County, AR

Docket No(s)	50–313.
Application date	September 30, 2021, as supplemented by letter dated December 2, 2021.
ADAMS Accession No	ML21274A874, ML21337A245.
Location in Application of NSHC	Pages 28—29 of the Enclosure.
Brief Description of Amendment(s)	The proposed amendment would revise the Dose Equivalent I–131 and the reactor coolant system (RCS) primary activity limits required by Technical Specification (TS) 3.4.12, ''RCS Specific Activity,'' for Arkansas Nuclear One, Unit 1. In addition, the primary-to-secondary leak rate limit provided in TS 3.4.13, ''RCS Operational Leakage,'' would be revised. These proposed changes are proposed to address non-conservative inputs used in the steam generator tube rupture accident, the main steam line break accident, and the control rod ejection accident dose consequence calculations.
Proposed Determination	NSHC.
Name of Attorney for Licensee, Mailing Address	Anna Vinson Jones, Assistant General Counsel, Entergy Services, Inc.,101 Constitution Avenue NW, Suite 200 East, Washington, DC 20001.
NRC Project Manager, Telephone Number	Thomas Wengert, 301–415–4037.

Indiana Michigan Power Company; Donald C. Cook Nuclear Plant, Units 1 and 2; Berrien County, MI

Docket No(s).	50–315, 50–316.
Application date	November 8, 2021.
ADAMS Accession No	ML21312A518.
Location in Application of NSHC	Pages 2–3 of Enclosure 2.
Brief Description of Amendment(s)	The proposed amendments would revise the technical specifications to adopt Technical Specifications Task Force (TSTF) Traveler, TSTF–577, Revision 1, ''Revised Frequencies for Steam Generator Tube Inspections.''
Proposed Determination	NSHC.
Name of Attorney for Licensee, Mailing Address	Robert B. Haemer, Senior Nuclear Counsel, Indiana Michigan Power Company, One Cook Place, Bridgman, MI 49106.

LICENSE AMENDMENT REQUEST(S)—Continued

NRC Project Manager, Telephone Number	Scott Wall, 301–415–2855.

National Institute of Standards and Technology (NIST), National Bureau of Standards test reactor, Montgomery County, Maryland

Docket No(s)	50–184.
Application date	December 23, 2021, as supplemented by NSHC Supplement Rev.1 letter dated January 11, 2022.
ADAMS Accession No	ML21361A246 (Package), ML22012A090.
Location in Application of NSHC	Pages 2–4 of supplement.
Brief Description of Amendment(s)	The proposed amendment would revise Technical Specification (TS) 3.9.2.1, removing permission to use height checks to verify latching of fuel elements and requiring that both a rotational check and visual verification be performed to verify latching of fuel elements. The proposed TS revisions would provide additional confidence that a fuel element is properly latched and will remain in position during reactor operation. Proper latching of the fuel element during operation ensures adequate cooling flow to the fuel element preventing overheating of the element during normal reactor operations. Specifically, the proposed amendment would revise TS 3.9.2.1 by changing the specification statement from ''shall be accomplished by one of the following methods,'' to ''shall be accomplished by both of the following methods.'' Additionally, TS 3.9.2.1.1 ''Elevation check of the fuel element with main pump flow,'' is deleted entirely.
Proposed Determination	NSHC.
Name of Attorney for Licensee, Mailing Address	Henry N. Wixon, Chief of Counsel, National Institute of Standards and Technology, 100 Bureau Drive, Stop 1052, Room A534, Gaithersburg, MD 20899–1052.
NRC Project Manager, Telephone Number	Patrick G. Boyle, 301–415–3936.

Northern States Power Company; Monticello Nuclear Generating Plant; Wright County, MN

Docket No(s)	50–263.
Application date	December 13, 2021.
ADAMS Accession No	ML21348A718.
Location in Application of NSHC	Pages 19 and 20 of Enclosure.
Brief Description of Amendment(s)	The proposed amendment would revise the Monticello Nuclear Generating Plant Technical Specifications (TSs). Specifically, the amendment would revise TS 3.8.3, ''Diesel Fuel Oil, Lube Oil, and Starting Air,'' and TS 3.8.2 ''AC Sources—Shutdown,'' to allow the common fuel oil storage tank to be out of service for up to 14 days to perform inspection required by license renewal.
Proposed Determination	NSHC.
Name of Attorney for Licensee, Mailing Address	Peter M. Glass, Assistant General Counsel, Xcel Energy, 414 Nicollet Mall—401–8, Minneapolis, MN 55401.
NRC Project Manager, Telephone Number	Robert Kuntz, 301–415–3733.

Southern Nuclear Operating Company, Inc.; Joseph M. Farley Nuclear Plant, Units 1 and 2; Houston County, AL

Docket No(s)	50–348, 50–364.
Application date	December 13, 2021.
ADAMS Accession No	ML21348A733.
Location in Application of NSHC	Pages E–14 and E–15 of Enclosure.
Brief Description of Amendment(s)	The proposed amendment would revise the peak calculated containment internal pressure for the design basis loss-of-coolant accident (LOCA) described in the Joseph M. Farley Nuclear Plant, Units 1 and 2, Technical Specifications 5.5.17, ''Containment Leakage Rate Testing Program.''
Proposed Determination	NSHC.
Name of Attorney for Licensee, Mailing Address	Millicent Ronnlund, Vice President and General Counsel, Southern Nuclear Operating Co., Inc., P.O. Box 1295, Birmingham, AL 35201–1295.
NRC Project Manager, Telephone Number	Stephanie Devlin-Gill, 301–415–5301.

Southern Nuclear Operating Company, Inc.; Joseph M. Farley Nuclear Plant, Units 1 and 2; Houston County, AL; Southern Nuclear Operating Company, Inc.; Vogtle Electric Generating Plant, Units 1 and 2; Burke County, GA

Docket No(s)	50–348, 50–364, 50–424, 50–425.
Application date	December 21, 2021.
ADAMS Accession No	ML21356B499.
Location in Application of NSHC	Pages E–2 and E–3 of Enclosure.
Brief Description of Amendment(s)	The proposed amendment would adopt the NRC-approved Technical Specification Task Force (TSTF) Traveler 269–A, Revision 2, ''Allow Administrative Means of Position Verification for Locked or Sealed Valves.'' The proposed amendment would modify Technical Specification 3.6.3, ''Containment Isolation Valves.'' Consistent with TSTF–269–A, Notes would be added to allow isolation devices that are locked, sealed or otherwise secured be verified by use of administrative means.
Proposed Determination	NSHC.
Name of Attorney for Licensee, Mailing Address	Millicent Ronnlund, Vice President and General Counsel, Southern Nuclear Operating Co., Inc., P.O. Box 1295, Birmingham, AL 35201–1295.
NRC Project Manager, Telephone Number	John Lamb, 301–415–3100.

Southern Nuclear Operating Company, Inc.; Joseph M. Farley Nuclear Plant, Units 1 and 2; Houston County, AL; Southern Nuclear Operating Company, Inc.; Vogtle Electric Generating Plant, Units 1 and 2; Burke County, GA

Docket No(s)	50–348, 50–364, 50–424, 50–425.
Application date	December 22, 2021.
ADAMS Accession No	ML21356B484.
Location in Application of NSHC	Pages E–8 and E–9 of Enclosure.
Brief Description of Amendment(s)	The proposed amendment would revise the Farley Technical Specifications (TS) by relocating some detailed information from TS 5.5.16, ''Main Steamline Inspection Program,'' to the Farley Updated Final Safety Analysis Report (UFSAR). The proposed amendment would also revise the Vogtle TS by relocating some detailed information from TS 5.5.16, ''MS [Main Steam] and FW [Feedwater] Piping Inspection Program,'' to the Vogtle UFSAR.
Proposed Determination	NSHC.
Name of Attorney for Licensee, Mailing Address	Millicent Ronnlund, Vice President and General Counsel, Southern Nuclear Operating Co., Inc., P.O. Box 1295, Birmingham, AL 35201–1295.
NRC Project Manager, Telephone Number	John Lamb, 301–415–3100.

LICENSE AMENDMENT REQUEST(S)—Continued

Southern Nuclear Operating Company, Inc.; Vogtle Electric Generating Plant, Units 1 and 2; Burke County, GA	
Docket No(s)	50–424, 50–425.
Application date	December 22, 2021.
ADAMS Accession No	ML21356B485.
Location in Application of NSHC	Pages E–6 and E–8 of Enclosure.
Brief Description of Amendment(s)	The proposed amendment would adopt the NRC-approved Technical Specification Task Force (TSTF)–283–A, Revision 3, ''Modify Section 3.8 Mode Restriction Notes.'' The proposed amendment would modify Technical Specifications (TS) 3.8.1, ''AC Sources—Operating'', and TS 3.8.4, ''DC Sources—Operating.'' Consistent with TSTF–283–A, Notes would be added to allow greater flexibility in performing Surveillance Requirements in Modes 1, 2, 3, or 4.
Proposed Determination	NSHC.
Name of Attorney for Licensee, Mailing Address	Millicent Ronnlund, Vice President and General Counsel, Southern Nuclear Operating Co., Inc., P.O. Box 1295, Birmingham, AL 35201–1295.
NRC Project Manager, Telephone Number	John Lamb, 301–415–3100.
Susquehanna Nuclear, LLC and Allegheny Electric Cooperative, Inc.; Susquehanna Steam Electric Station, Units 1 and 2; Luzerne County, PA	
Docket No(s)	50–387, 50–388.
Application date	October 5, 2021, as supplemented by letter dated December 16, 2021.
ADAMS Accession No	ML21279A026, ML21350A265.
Location in Application of NSHC	Pages 9–11 of Enclosure 1 of October 5, 2021 submittal, and Page 2 of supplement dated December 16, 2021.
Brief Description of Amendment(s)	The proposed amendments would revise the instrumentation allowable values for the core spray and the low pressure cooling injection systems' reactor steam dome pressure low initiation and injection permissive instrumentation functions in Table 3.3.5.1–1 in Technical Specification 3.3.5.1, ''Emergency Core Cooling System (ECCS) Instrumentation.'' The proposed amendments would also modify the associated analytical limits and setpoint values for these functions.
Proposed Determination	NSHC.
Name of Attorney for Licensee, Mailing Address	Damon D. Obie, Esq, 835 Hamilton St., Suite 150, Allentown, PA 18101.
NRC Project Manager, Telephone Number	Audrey Klett, 301–415–0489.
Tennessee Valley Authority; Browns Ferry Nuclear Plant, Units 1, 2, and 3; Limestone County, AL	
Docket No(s)	50–259, 50–260, 50–296.
Application date	November 5, 2021.
ADAMS Accession No	ML21309A038.
Location in Application of NSHC	Pages E–9—E–12 of the Enclosure.
Brief Description of Amendment(s)	The proposed amendments would allow the use of a manually operated chilled water cross-tie line between the Browns Ferry Nuclear Plant (Browns Ferry), Unit 3, control bay chilled water system and the Browns Ferry, Unit 1/2 control bay chilled water system to be used in the event of an abnormal condition when both trains of the Unit 1/2 chilled water system are inoperable. The proposed amendments also would revise Browns Ferry, Units 1, 2, and 3, Technical Specification 3.8.7, ''Distribution Systems—Operating,'' to provide a one-time use exception to the Required Actions during the installation and testing of the cross-tie.
Proposed Determination	NSHC.
Name of Attorney for Licensee, Mailing Address	David Fountain, Executive VP and General Counsel, Tennessee Valley Authority, 400 West Summit Hill Drive, WT 6A, Knoxville, TN 37902.
NRC Project Manager, Telephone Number	Kimberly Green, 301–415–1627.
Tennessee Valley Authority; Browns Ferry Nuclear Plant, Units 1, 2, and 3; Limestone County, AL	
Docket No(s)	50–259, 50–260, 50–296.
Application date	December 3, 2021.
ADAMS Accession No	ML21337A227.
Location in Application of NSHC	Pages E–4 and E–5 of the Enclosure.
Brief Description of Amendment(s)	The proposed amendments would revise a few of the instrument testing and calibration definitions in the Browns Ferry Nuclear Plant (Browns Ferry), Units 1, 2, and 3 technical specifications (TSs), as well as incorporate the surveillance frequency control program in a couple of the same definitions. The proposed amendments are based on Technical Specification Task Force (TSTF) Traveler TSTF–205–A, Revision 3, ''Revision of Channel Calibration, Channel Functional Test, and Related Definitions,'' and TSTF–563–A, ''Revise Instrument Testing Definitions to Incorporate the Surveillance Frequency Control Program.'' Additionally, the proposed amendments would rescind the consolidation of several previously approved surveillance requirements approved in Amendment Nos. 315, 338, and 298 for Browns Ferry, Units 1, 2, and 3, respectively, and restore the surveillance requirements to their prior status with the frequencies as ''In accordance with the Surveillance Frequency Control Program.''
Proposed Determination	NSHC.
Name of Attorney for Licensee, Mailing Address	David Fountain, Executive VP and General Counsel, Tennessee Valley Authority, 400 West Summit Hill Drive, WT 6A, Knoxville, TN 37902.
NRC Project Manager, Telephone Number	Kimberly Green, 301–415–1627.
Tennessee Valley Authority; Watts Bar Nuclear Plant, Units 1 and 2; Rhea County, TN	
Docket No(s)	50–390, 50–391.
Application date	December 9, 2021.
ADAMS Accession No	ML21344A027.
Location in Application of NSHC	Pages E–3 and E–4 of the Enclosure.
Brief Description of Amendment(s)	The proposed amendments would revise several instrumentation testing and calibration definitions in the Watts Bar Nuclear Plant, Units 1 and 2, technical specifications, as well as incorporate the surveillance frequency control program in a few of the same definitions. The proposed amendments are based on Technical Specification Task Force (TSTF) Traveler TSTF–205–A, Revision 3, ''Revision of Channel Calibration, Channel Functional Test, and Related Definitions,'' and TSTF–563–A, ''Revise Instrument Testing Definitions to Incorporate the Surveillance Frequency Control Program.''
Proposed Determination	NSHC.

LICENSE AMENDMENT REQUEST(S)—Continued

Name of Attorney for Licensee, Mailing Address	David Fountain, Executive VP and General Counsel, Tennessee Valley Authority, 400 West Summit Hill Drive, WT 6A, Knoxville, TN 37902.
NRC Project Manager, Telephone Number	Kimberly Green, 301–415–1627.
Union Electric Company; Callaway Plant, Unit No. 1; Callaway County, MO	
Docket No(s)	50–483
Application date	September 28, 2021, as supplemented by letter dated December 1, 2021.
ADAMS Accession No	ML21272A167 (Package), ML21335A451 (Package).
Location in Application of NSHC	Pages 158–160 of Enclosure 1 of the Supplement.
Brief Description of Amendment(s)	The proposed amendments would revise the technical specifications and authorize changes to the final safety analysis report to support a full-scope application of the regulations in 10 CFR 50.67, ''Alternative Source Term,'' and described in NRC Regulatory Guide 1.183, Revision 0, ''Alternative Radiological Source Terms for Evaluating Design Basis Accidents at Nuclear Power Reactors.'' Specifically, the amendments would revise technical specification (TS) 3.7.10, ''Control Room Emergency Ventilation System (CREVS), TS 5.5.11, Ventilation Filter Testing Program,'' and TS 5.5.17, ''Control Room Envelope Habitability Program.''
Proposed Determination	NSHC.
Name of Attorney for Licensee, Mailing Address	Jay E. Silberg, Pillsbury Winthrop Shaw Pittman LLP, 1200 17th St., NW, Washington, DC 20036.
NRC Project Manager, Telephone Number	Mahesh Chawla, 301–415–8371.
Union Electric Company; Callaway Plant, Unit No. 1; Callaway County, MO	
Docket No(s)	50–483.
Application date	October 21, 2021, as supplemented by letter dated November 24, 2021.
ADAMS Accession No	ML21294A393 (Package), ML21328A182 (Package).
Location in Application of NSHC	Pages 6–8 of Attachment 1.
Brief Description of Amendment(s)	The proposed amendment would adopt Technical Specifications Task Force (TSTF) Traveler TSTF–505, Revision 2, ''Provide Risk-Informed Extended Completion Times—RITSTF [Risk-Informed TSTF] Initiative 4b,'' and TSTF–439, Revision 2, ''Eliminate Second Completion Times Limiting Time from Discovery of Failure to Meet an LCO [Limiting Condition for Operation]'' and would time completion times contained in the applicable technical specifications (TSs). The amendment would modify the TS requirements to add a new TS 5.5.19, ''Risk Informed Completion Time Program,'' to 5.0, ''Administrative Controls.''
Proposed Determination	NSHC.
Name of Attorney for Licensee, Mailing Address	Jay E. Silberg, Pillsbury Winthrop Shaw Pittman LLP, 1200 17th St., NW, Washington, DC 20036.
NRC Project Manager, Telephone Number	Mahesh Chawla, 301–415–8371.
Wolf Creek Nuclear Operating Corporation; Wolf Creek Generating Station, Unit 1; Coffey County, KS	
Docket No(s)	50–482.
Application date	January 12, 2022.
ADAMS Accession No	ML22012A217.
Location in Application of NSHC	Pages 3–4 of Attachment I.
Brief Description of Amendment(s)	The proposed amendment would remove the Table of Contents from the Wolf Creek Generating Station, Unit 1, Technical Specifications and place it under the licensee control.
Proposed Determination	NSHC.
Name of Attorney for Licensee, Mailing Address	Thomas C. Poindexter, Morgan, Lewis and Bockius LLP, 1111 Pennsylvania Avenue NW, Washington, DC 20004–2541.
NRC Project Manager, Telephone Number	Samson Lee, 301–415–3168.

III. Notice of Issuance of Amendments to Facility Operating Licenses and Combined Licenses

During the period since publication of the last monthly notice, the Commission has issued the following amendments. The Commission has determined for each of these amendments that the application complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR chapter I, which are set forth in the license amendment.

A notice of consideration of issuance of amendment to facility operating license or combined license, as applicable, proposed NSHC determination, and opportunity for a hearing in connection with these actions, was published in the **Federal Register** as indicated in the safety evaluation for each amendment.

Unless otherwise indicated, the Commission has determined that these amendments satisfy the criteria for categorical exclusion in accordance with 10 CFR 51.22. Therefore, pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared for these amendments. If the Commission has prepared an environmental assessment under the special circumstances provision in 10 CFR 51.22(b) and has made a determination based on that assessment, it is so indicated in the safety evaluation for the amendment.

For further details with respect to each action, see the amendment and associated documents such as the Commission's letter and safety evaluation, which may be obtained using the ADAMS accession numbers indicated in the following table. The safety evaluation will provide the ADAMS accession numbers for the application for amendment and the **Federal Register** citation for any environmental assessment. All of these items can be accessed as described in the ''Obtaining Information and Submitting Comments'' section of this document.

LICENSE AMENDMENT ISSUANCE(S)

Constellation Energy Generation, LLC; Braidwood Station, Units 1 and 2, Will County, IL; Byron Station, Unit Nos. 1 and 2, Ogle County, IL; Constellation Energy Generation, LLC; Calvert Cliffs Nuclear Power Plant, Units 1 and 2, and Independent Spent Fuel Storage Installation; Calvert County, MD; Constellation Energy Generation, LLC; Clinton Power Station, Unit No. 1; DeWitt County, IL; Constellation Energy Generation, LLC; LaSalle County Station, Units 1 and 2; LaSalle County, IL; Constellation Energy Generation, LLC; Limerick Generating Station, Units 1 and 2; Montgomery County, PA; Constellation Energy Generation, LLC; Peach Bottom Atomic Power Station, Units 1, 2, and 3; York County, PA; Constellation Energy Generation, LLC; Quad Cities Nuclear Power Station, Units 1 and 2; Rock Island County, IL; Constellation Energy Generation, LLC; Three Mile Island Nuclear Station, Unit 1; Dauphin County, PA; Constellation Energy Generation, LLC: Dresden Nuclear Power Plant, Units 1, 2, and 3; Grundy County, IL; Constellation FitzPatrick, LLC and Constellation Energy Generation, LLC; James A FitzPatrick Nuclear Power Plant; Oswego County, NY; Nine Mile Point Nuclear Station, LLC and Constellation Energy Generation, LLC; Nine Mile Point Nuclear Station, Units 1 and 2; Oswego County, NY; PSEG Nuclear LLC; Salem Nuclear Generating Station, Unit Nos. 1 and 2; Salem County, NJ; R. E. Ginna Nuclear Power Plant, LLC and Constellation Energy Generation, LLC; R. E. Ginna Nuclear Power Plant; Wayne County, NY

Docket No(s)	50–456, 50–457, 50–454, 50–455, 50–317, 50–318, 72–008, 50–461, 50–010, 50–237, 50–249, 50–333, 50–373, 50–374, 50–352, 50–353, 50–220, 50–410, 50–171, 50–277, 50–278, 50–254, 50–265, 50–244, 50–272, 50–311, 50–289.
Amendment Date	February 1, 2022.
ADAMS Accession No	ML22021B662 (Package).
Amendment No(s)	Braidwood 224 (U–1), 224 (U–2); Byron 226 (U–1), 226 (U–2); Calvert Cliffs 343 (U–1), 321 (U–2), 12 (ISFSI); Clinton 243; Dresden 50 (U–1), 277 (U–2), 270 (U–3); FitzPatrick 347; Lasalle 254 (U–1), 240 (U–2); Limerick 255 (U–1), 217 (U–2); Nine Mile Point 247 (U–1), 189 (U–2); Peach Bottom 17 (U–1), 340 (U–2), 343 (U–3); Quad Cities 289 (U–1), 285 (U–2); Ginna 147; Salem 341 (U–1), 322, (U–2); TMI 302 (U–1).
Brief Description of Amendment(s)	By order dated November 16, 2021 (ADAMS Accession No. ML21277A192), the NRC staff approved the license transfer application dated February 25, 2021 (ADAMS Accession No. ML21057A273), as supplemented, that was submitted by Exelon Generation Company, LLC, on behalf of itself and Exelon Corporation; Exelon FitzPatrick, LLC; Nine Mile Point Nuclear Station, LLC; R. E. Ginna Nuclear Power Plant, LLC; and Calvert Cliffs Nuclear Power Plant, LLC. A copy of the NRC staff safety evaluation (ADAMS Accession No. ML21277A248) related to the license transfer application was provided with the order. The license amendments reflect the transfer transaction that closed on February 1, 2022.
Public Comments Received as to Proposed NSHC (Yes/No).	No.

Dominion Energy Nuclear Connecticut, Inc.; Millstone Power Station, Unit No. 3; New London County, CT

Docket No(s)	50–423.
Amendment Date	January 7, 2022.
ADAMS Accession No	ML21326A099.
Amendment No(s)	281 (Unit 3).
Brief Description of Amendment(s)	The amendment modified the technical specifications by revising the Reactor Core Safety Limit 2.1.1.2 peak fuel centerline temperature to reflect the fuel centerline temperature specified in Topical Report WCAP–17642–P–A, Revision 1, ''Westinghouse Performance Analysis and Design Model (PAD5)''
Public Comments Received as to Proposed NSHC (Yes/No).	No.

Duke Energy Florida, LLC; Crystal River Unit 3 Nuclear Generating Plant; Citrus County, FL

Docket No(s)	50–302.
Amendment Date	November 24, 2021.
ADAMS Accession No	ML21322A270.
Amendment No(s)	260 (Unit 3).
Brief Description of Amendment(s)	The amendment revised the Crystal River Nuclear Plant, Unit 3 (CR3), Independent Spent Fuel Storage Installation (ISFSI) Security Plan, Training and Qualification Plan, and Safeguards Contingency Plan, as well as updated (1) the existing physical security license condition in the facility operating license and (2) the order responses related to additional security measures and fingerprinting for unescorted access at the CR3 ISFSI.
Public Comments Received as to Proposed NSHC (Yes/No).	No.

Duke Energy Progress, LLC; Shearon Harris Nuclear Power Plant, Unit 1; Wake and Chatham Counties, NC

Docket No(s)	50–400.
Amendment Date	January 19, 2022.
ADAMS Accession No	ML21316A248.
Amendment No(s)	188.
Brief Description of Amendment(s)	The amendment revised the facility operating license condition associated with the adoption of 10 CFR 50.69, ''Risk-informed Categorization and Treatment of Structures, Systems and Components for Nuclear Power Reactors'' to reflect an alternative approach to the one provided in Nuclear Energy Institute's (NEI) 00–04, ''10 CFR 50.69 SSC Categorization Guideline,'' Revision 0 (ADAMS Accession No. ML052910035), for evaluating the impact of the seismic hazard in the 10 CFR 50.69 categorization process, and to also delete the license condition that required the completion of certain implementation items prior to the implementation of 10 CFR 50.69.
Public Comments Received as to Proposed NSHC (Yes/No).	No.

Duke Energy Progress, LLC; Shearon Harris Nuclear Power Plant, Unit 1; Wake and Chatham Counties, NC

Docket No(s)	50–400.
Amendment Date	January 20, 2022.
ADAMS Accession No	ML21320A001.
Amendment No(s)	189.
Brief Description of Amendment(s)	The amendment revises the Technical Specifications to reflect the transition of the licensee-controlled plant procedure PLP–106, ''Technical Specification Equipment List Program,'' to a licensee-controlled Technical Requirements Manual.

LICENSE AMENDMENT ISSUANCE(S)—Continued

Public Comments Received as to Proposed NSHC (Yes/No).	No.

Energy Harbor Nuclear Corp. and Energy Harbor Nuclear Generation LLC; Perry Nuclear Power Plant, Unit 1; Lake County, OH

Docket No(s)	50–440.
Amendment Date	January 10, 2022.
ADAMS Accession No	ML21322A260.
Amendment No(s)	197.
Brief Description of Amendment(s)	The amendment revises Technical Specifications (TS) 3.4.9, ''Residual Heat Removal (RHR) Shutdown Cooling System—Hot Shutdown,'' and TS 3.4.10, ''Residual Heat Removal (RHR) Shutdown Cooling System—Cold Shutdown,'' in accordance with Technical Specifications Task Force (TSTF) Traveler, TSTF–566, Revision 0, ''Revise Actions for Inoperable RHR Shutdown Cooling Subsystem,'' and TSTF–580, Revision 1, ''Provide Exception from Entering Mode 4 With No Operable RHR Shutdown Cooling.''
Public Comments Received as to Proposed NSHC (Yes/No).	No.

Energy Northwest; Columbia Generating Station; Benton County, WA

Docket No(s)	50–397.
Amendment Date	January 13, 2022.
ADAMS Accession No	ML21293A164.
Amendment No(s)	266.
Brief Description of Amendment(s)	The amendment removed License Condition (LC) 2.C.(34) and revised LC 2.C.(35). The LC 2.C.(34) is no longer applicable because the Columbia Generating Station (Columbia) Final Safety Analysis Report has been updated to include the license renewal commitments. The revision to LC 2.C.(35) clarified that future changes to the license renewal commitments, as dictated by operating experience, are made under the provisions of 10 CFR 50.59, ''Changes, tests, and experiments.'' The changes do not result in changes to the technical specifications or operating requirements for Columbia.
Public Comments Received as to Proposed NSHC (Yes/No).	No.

Exelon Generation Company, LLC; Braidwood Station, Units 1 and 2; Will County, IL; Exelon Generation Company, LLC; Braidwood Station, Units 1 and 2; Will County, IL; Exelon Generation Company, LLC; Byron Station, Unit Nos. 1 and 2, Ogle County, IL; Exelon Generation Company, LLC; Calvert Cliffs Nuclear Power Plant, Unit Nos. 1 and 2; Calvert County, MD; Exelon Generation Company, LLC, Clinton Power Station, Unit No. 1, DeWitt County, IL; Exelon Generation Company, LLC; Dresden Nuclear Power Station, Units 2 and 3; Grundy County, IL; Exelon Generation Company, LLC and Exelon FitzPatrick, LLC; James A. FitzPatrick Nuclear Power Plant; Oswego County, NY; Exelon Generation Company, LLC, LaSalle County Station, Units 1 and 2; LaSalle County, IL; Exelon Generation Company, LLC; Limerick Generating Station, Units 1 and 2; Montgomery County, PA; Exelon Generation Company, LLC; Nine Mile Point Nuclear Station, Units 1 and 2; Oswego County, NY; Exelon Generation Company, LLC and PSEG Nuclear LLC; Peach Bottom Atomic Power Station, Units 2 and 3; York and Lancaster Counties, PA; Exelon Generation Company, LLC; Quad Cities Nuclear Power Station, Units 1 and 2; Rock Island County, IL; Exelon Generation Company, LLC; R. E. Ginna Nuclear Power Plant; Wayne County, NY; Exelon Generation Company, LLC; Limerick Generating Station, Units 1 and 2; Montgomery County, PA

Docket No(s)	50–456, 50–457, 50–454, 50–455, 50–317, 50–318, 50–461, 50–237, 50–249, 50–333, 50–373, 50–374, 50–352, 50–353, 50–410, 50–277, 50–278, 50–254, 50–265, 50–244.
Amendment Date	January 13, 2022.
ADAMS Accession No	ML21347A038.
Amendment No(s)	Braidwood 223 (U–1) 223 (U–2); Byron 225 (U–1) 225 (U–2); Calvert Cliffs 341 (U–1) 319 (U–2); Clinton 242; Dresden 276 (U–2) 269 (U–3); FitzPatrick 346; LaSalle 253 (U–1) 239 (U–2); Limerick 254 (U–1) 216 (U–2); Nine Mile Point 188 (U–2); Peach Bottom 339 (U–2) 342 (U–3); Quad Cities 288 (U–1) 284 (U–2); Ginna 146.
Brief Description of Amendment(s)	The amendments revised the reactor coolant leakage requirements in the technical specifications for each facility based on Technical Specifications Task Force (TSTF) Traveler TSTF 554, Revision 1, ''Revise Reactor Coolant Leakage Requirements,'' (ADAMS Accession No. ML20016A233).
Public Comments Received as to Proposed NSHC (Yes/No).	Yes.

Exelon Generation Company, LLC; Calvert Cliffs Nuclear Power Plant, Units 1 and 2; Calvert County, MD

Docket No(s)	50–317, 50–318.
Amendment Date	January 13, 2022.
ADAMS Accession No	ML21347A864.
Amendment No(s)	342 (Unit 1) and 320 (Unit 2).
Brief Description of Amendment(s)	The amendments incorporated changes to the Updated Final Safety Analysis Report and the Technical Requirements Manual to allow for a full core offload without the availability of being supplemented with one loop of the shutdown cooling system during certain refueling outages. The amendments also incorporated a change in calculational methodology used in the Calvert Cliffs spent fuel pool heat-up analysis.
Public Comments Received as to Proposed NSHC (Yes/No).	No.

Florida Power & Light Company, et al.; St. Lucie Plant, Unit Nos. 1 and 2; St. Lucie County, FL

Docket No(s)	50–335, 50–389.
Amendment Date	January 14, 2022.
ADAMS Accession No	ML21342A209.
Amendment No(s)	252 (Unit 1) and 207 (Unit 2).

LICENSE AMENDMENT ISSUANCE(S)—Continued

Brief Description of Amendment(s)	The amendments extended technical specification (TS) requirements to permit the use of Risk Informed Completion Times (RICTs) to the 120-Volt alternating current (AC) Instrument Bus TS, in accordance with TSTF–505, Revision 2, ''Provide Risk-Informed Completion Times RITSTF Initiative 4b,'' and Nuclear Energy Institute (NEI) 06–09, ''Risk-Informed Technical Specifications Initiative 4b, Risk Managed Technical Specifications (RMTS) Guidelines.'' Accordingly, these amendments revised License Condition J of the St. Lucie 1 Renewed Facility Operating License (RFOL) and License Condition O of the St. Lucie 2 RFOL, respectively, each of which adds the amendment numbers resulting from this amendment request and deletes the first listed condition specifying activities to be completed prior to implementing the RICT Program. The amendments also modified Unit 1 TS 3.8.2.1 Action b and Unit 2 TS 3.8.3.1 Action b to permit the use of a RICT for the 120 VAC instrument buses.
Public Comments Received as to Proposed NSHC (Yes/No).	No.

NextEra Energy Duane Arnold, LLC; Duane Arnold Energy Center; Linn County, IA

Docket No(s)	50–331.
Amendment Date	January 21, 2022.
ADAMS Accession No	ML21172A217.
Amendment No(s)	315.
Brief Description of Amendment(s)	The U.S. Nuclear Regulatory Commission (NRC, Commission) has issued Amendment No. 315 to Renewed Facility Operating License No. DPR 49, for the Duane Arnold Energy Center (DAEC), operated by NextEra Energy Duane Arnold, LLC. The amendment consists of revisions to the Renewed Facility Operating License and the technical specifications (TS) in response to DAEC's application dated February 19, 2021 (ADAMS Accession No. ML21050A189), as supplemented on January 3, 2022 (ADAMS Package Accession No. ML22004A010). These revisions reflect the removal of all spent nuclear fuel from the DAEC spent fuel pool and its transfer to dry cask storage within an onsite Independent Spent Fuel Storage Installation (ISFSI). These changes more fully reflect the permanently shutdown status of the decommissioning facility, as well as the reduced scope of structures, systems, and components necessary to ensure plant safety once all spent fuel has been permanently moved to the DAEC ISFSI, an activity which is currently scheduled for completion in mid-2022. The changes also include the relocation of administrative controls from the TS to the DAEC Quality Assurance Topical Report, as well as deletion of the remaining TS Bases, except for certain environmental reporting requirements which are required to remain in the TS in accordance with 10 CFR 50.36a(a)(2). The changes shall be implemented within 60 days following submittal of written notification to the NRC that all spent nuclear fuel assemblies have been transferred out of the DAEC SFP and placed in dry storage within the ISFSI.
Public Comments Received as to Proposed NSHC (Yes/No).	No.

Southern Nuclear Operating Company, Inc.; Joseph M. Farley Nuclear Plant, Units 1 and 2; Houston County, AL; Southern Nuclear Operating Company, Inc.; Vogtle Electric Generating Plant, Units 1 and 2; Burke County, GA

Docket No(s)	50–348, 50–364, 50–424, 50–425.
Amendment Date	January 26, 2022.
ADAMS Accession No	ML21344A003.
Amendment No(s)	Farley—239 (Unit 1) and 236 (Unit 2), Vogtle—212 (Unit 1), and 195 (Unit 2).
Brief Description of Amendment(s)	The amendments revised TS 3.1.7, ''Rod Position Indication,'' TS 3.2.1, ''Heat Flux Hot Channel Factor (FQ(Z)),'' and TS 3.3.1, ''Reactor Trip System (RTS) Instrumentation,'' to allow the use of an alternate means of determining power distribution information. The amendments allow the use of a dedicated online core power distribution monitoring system (PDMS) to perform surveillance of core thermal limits. The PDMS to be used at Farley, Units 1 and 2; and Vogtle, Units 1 and 2, is the Westinghouse proprietary core analysis system called ''Best Estimate Analyzer for Core Operations—Nuclear'' (BEACONTM).
Public Comments Received as to Proposed NSHC (Yes/No).	No.

Southern Nuclear Operating Company, Inc.; Edwin I. Hatch Nuclear Plant, Units 1 and 2; Appling County, GA; Southern Nuclear Operating Company, Inc.; Joseph M. Farley Nuclear Plant, Units 1 and 2; Houston County, AL; Southern Nuclear Operating Company, Inc.; Vogtle Electric Generating Plant, Units 1 and 2; Burke County, GA

Docket No(s)	50–321, 50–364, 50–366, 50–348, 50–424, 50–425.
Amendment Date	February 2, 2022.
ADAMS Accession No	ML21349A518.
Amendment No(s)	Farley—240 (Unit 1) and 237 (Unit 2), Hatch—314 (Unit 1) and 259 (Unit 2), Vogtle—213 (Unit 1), and 196 (Unit 2).
Brief Description of Amendment(s)	In its application dated September 29, 2021, the licensee requested that the U.S. Nuclear Regulatory Commission (NRC, the Commission) process the proposed license amendment request under the Consolidated Line Item Improvement Process. The amendments revised the technical specifications related to reactor coolant system operational leakage and the definition of the term ''LEAKAGE'' based on Technical Specifications Task Force (TSTF) Traveler TSTF–554, Revision 1, ''Revise Reactor Coolant Leakage Requirements,'' (TSTF–554) (ADAMS Accession No. ML20016A233), and the associated NRC staff safety evaluation of TSTF–554 (ADAMS Accession No. ML20322A024).
Public Comments Received as to Proposed NSHC (Yes/No).	No.

Tennessee Valley Authority; Watts Bar Nuclear Plant, Unit 1; Rhea County, TN

Docket No(s)	50–390.
Amendment Date	January 18, 2022.
ADAMS Accession No	ML21334A295.
Amendment No(s)	151 (Unit 1).
Brief Description of Amendment(s)	The amendment revised the existing Note in the Limiting Condition for Operation for Watts Bar Nuclear Plant, Unit 1, Technical Specification 3.7.12, ''Auxiliary Building Gas Treatment System (ABGTS),'' to allow the auxiliary building secondary containment enclosure boundary to be opened, at specific controlled access points, on a continuous basis, during the Watts Bar Nuclear Plant, Unit 2, Cycle 4 refueling outage, when the replacement steam generators will be installed.

LICENSE AMENDMENT ISSUANCE(S)—Continued

Public Comments Received as to Proposed NSHC (Yes/No).	No.
Tennessee Valley Authority; Watts Bar Nuclear Plant, Unit 2; Rhea County, TN	
Docket No(s)	50–391.
Amendment Date	January 12, 2022.
ADAMS Accession No	ML21334A389.
Amendment No(s)	59 (Unit 2).
Brief Description of Amendment(s)	The amendment revised the steam generator (SG) tube rupture analysis to utilize the new primary and secondary side mass releases and new reactor coolant system and SG masses associated with the Unit 2 replacement SGs.
Public Comments Received as to Proposed NSHC (Yes/No).	No.
Tennessee Valley Authority; Watts Bar Nuclear Plant, Unit 2; Rhea County, TN	
Docket No(s)	50–391.
Amendment Date	January 25, 2022.
ADAMS Accession No	ML21306A287.
Amendment No(s)	60 (Unit 2).
Brief Description of Amendment(s)	The amendment revised the Watts Bar Nuclear Plant, Unit 2, technical specifications (TSs) to delete several requirements for steam generator (SG) tube inspection and repair methodologies that will no longer apply following installation of the replacement SGs. The amendment also revised TS 5.7.2.12.d.2 to reflect the SG inspection interval criteria for Alloy 690 thermally treated tubing. Additionally, the amendment revised Watts Bar, Unit 2's license condition 2.C.(4) to delete the reference to PAD4TCD, which will no longer apply following the installation of the replacement SGs.
Public Comments Received as to Proposed NSHC (Yes/No).	No.

Dated: February 15, 2022.

For the Nuclear Regulatory Commission.

Caroline L. Carusone,

Deputy Director, Division of Operating Reactor Licensing, Office of Nuclear Reactor Regulation.

[FR Doc. 2022–03593 Filed 2–18–22; 8:45 am]

BILLING CODE 7590–01–P

SECURITIES AND EXCHANGE COMMISSION

[Investment Company Act Release No. 34507; File No. 812–15288]

Thrivent ETF Trust, et al.

AGENCY: Securities and Exchange Commission (''Commission'').

ACTION: Notice.

Notice of an application under section 6(c) of the Investment Company Act of 1940 (the ''Act'') for an exemption from sections 2(a)(32), 5(a)(1), 22(d) and 22(e) of the Act and rule 22c–1 under the Act and under sections 6(c) and 17(b) of the Act for an exemption from sections 17(a)(1) and 17(a)(2) of the Act.

SUMMARY OF APPLICATION: Applicants request an order (''Order'') that permits: (a) The Funds (as defined below) to issue shares (''Shares'') redeemable in large aggregations only (''creation units''); (b) secondary market transactions in Shares to occur at negotiated market prices rather than at net asset value; (c) certain Funds to pay redemption proceeds, under certain circumstances, more than seven days after the tender of Shares for redemption; and (d) certain affiliated persons of a Fund to deposit securities into, and receive securities from, the Fund in connection with the purchase and redemption of creation units. The relief in the Order would incorporate by reference terms and conditions of the same relief of a previous order granting the same relief sought by applicants, as that order may be amended from time to time (''Reference Order'').[1]

APPLICANTS: Thrivent ETF Trust, Thrivent Distributors, LLC, and Thrivent Asset Management, LLC.

FILING DATES: The application was filed on December 7, 2021, and amended on January 25, 2022.

HEARING OR NOTIFICATION OF HEARING: An order granting the requested relief will be issued unless the Commission orders a hearing. Interested persons may request a hearing on any application by emailing the Commission's Secretary at *Secretarys-Office@sec.gov* and serving applicants with a copy of the request by email, if an email address is listed for the relevant applicant below, or personally or by mail, if a physical address is listed for the relevant applicant below. Hearing requests should be received by the Commission by 5:30 p.m. on March 14, 2022, and should be accompanied by proof of service on applicants, in the form of an affidavit or, for lawyers, a certificate of service. Pursuant to rule 0–5 under the Act, hearing requests should state the nature of the writer's interest, any facts bearing upon the desirability of a hearing on the matter, the reason for the request, and the issues contested. Persons who wish to be notified of a hearing may request notification by emailing the Commission's Secretary.

ADDRESSES: The Commission: *Secretarys-Office@sec.gov.* Applicants: John D. Jackson, Thrivent ETF Trust, *jay.jackson@thrivent.com;* Brian McCabe, ESQ, Ropes & Gray LLP, *brian.mccabe@ropesgray.com;* Jeremy Smith, ESQ, *jeremy.smith@ropesgray.com.*

FOR FURTHER INFORMATION CONTACT: Lisa Reid Ragen, Branch Chief, at (202) 551–6825 (Division of Investment Management, Chief Counsel's Office).

SUPPLEMENTARY INFORMATION: For Applicants' representations, legal analysis, and conditions, please refer to Applicants' amended and restated application, dated January 25, 2021, which may be obtained via the Commission's website by searching for the file number at the top of this document, or for an Applicant using the Company name search field, on the SEC's EDGAR system. The SEC's EDGAR system may be searched at *https://www.sec.gov/edgar/searchedgar/legacy/companysearch.html.* You may also call the SEC's Public Reference Room at (202) 551–8090.

For the Commission, by the Division of Investment Management, under delegated authority.

[1] Natixis ETF Trust II, et al., Investment Company Act Rel. Nos. 33684 (November 14, 2019) (notice) and 33711 (December 10, 2019) (order).

Dated: February 15, 2022.

J. Matthew DeLesDernier,

Assistant Secretary.

[FR Doc. 2022–03645 Filed 2–18–22; 8:45 am]

BILLING CODE 8011–01–P

SECURITIES AND EXCHANGE COMMISSION

[SEC File No. 270–135, OMB Control No. 3235–0175]

Submission for OMB Review; Comment Request

Upon Written Request, Copies Available From: Securities and Exchange Commission, Office of FOIA Services, 100 F Street NE, Washington, DC 20549–2736

Extension:
Form N–8A

Notice is hereby given that, pursuant to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*), the Securities and Exchange Commission (the ''Commission'') has submitted to the Office of Management and Budget (''OMB'') a request for extension of the previously approved collection of information discussed below.

The Investment Company Act of 1940 (''Investment Company Act'') (15 U.S.C. 80a–1 *et seq.*) requires investment companies to register with the Commission before they conduct any business in interstate commerce. Section 8(a) of the Investment Company Act provides that an investment company shall be deemed to be registered upon receipt by the Commission of a notification of registration in such form as the Commission prescribes. Form N–8A (17 CFR 274.10) is the form for notification of registration that the Commission has adopted under section 8(a). The purpose of such notification of registration provided on Form N–8A is to notify the Commission of the existence of investment companies required to be registered under the Investment Company Act and to enable the Commission to administer the provisions of the Investment Company Act with respect to those companies. After an investment company has filed its notification of registration under section 8(a), the company is then subject to the provisions of the Investment Company Act which govern certain aspects of its organization and activities, such as the composition of its board of directors and the issuance of senior securities. Form N–8A requires an investment company to provide its name, state of organization, form of organization, classification, the name and address of each investment adviser of the investment company, the current value of its total assets, and certain other information readily available to the investment company. If the investment company is filing a registration statement as required by Section 8(b) of the Investment Company Act concurrently with its notification of registration, Form N–8A requires only that the registrant file the cover page (giving its name, address, and agent for service of process) and sign the form in order to effect registration.

Based on recent filings of notifications of registration on Form N–8A, we estimate that about 101 investment companies file such notifications each year. An investment company must only file a notification of registration on Form N–8A once. The currently approved average hour burden per investment company of preparing and filing a notification of registration on Form N–8A is one hour. Based on the Commission staff's experience with the requirements of Form N–8A and with disclosure documents generally—and considering that investment companies that are filing notifications of registration on Form N–8A simultaneously with the registration statement under the Investment Company Act are only required by Form N–8A to file a signed cover page—we continue to believe that this estimate is appropriate. Therefore, we estimate that the total annual hour burden to prepare and file notifications of registration on Form N–8A is 101 hours. The currently approved cost burden of Form N–8A is $449. We are updating the estimated costs burden to $496 to account for the effects of inflation. Therefore, we estimate that the total annual cost burden associated with preparing and filing notifications of registration on Form N–8A is about $50,096.

Estimates of average burden hours and costs are made solely for the purposes of the Paperwork Reduction Act, and are not derived from a comprehensive or even representative survey or study of the costs of Commission rules and forms. Compliance with the collection of information requirements of Form N–8A is mandatory. Responses to the collection of information will not be kept confidential. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

The public may view the background documentation for this information collection at the following website, *www.reginfo.gov.* Comments should be directed to: (i) Desk Officer for the Securities and Exchange Commission, Office of Information and Regulatory Affairs, Office of Management and Budget, Room 10102, New Executive Office Building, Washington, DC 20503, or by sending an email to: *Lindsay.M.Abate@omb.eop.gov;* and (ii) David Bottom, Director/Chief Information Officer, Securities and Exchange Commission, c/o John R. Pezzullo, 100 F Street NE, Washington, DC 20549 or send an email to: *PRA_Mailbox@sec.gov.* Written comments and recommendations for the proposed information collection should be sent within 30 days of publication of this notice to *www.reginfo.gov/public/do/PRAMain.* Find this particular information collection by selecting ''Currently under 30-day Review—Open for Public Comments'' or by using the search function.

Dated: February 15, 2022.

J. Matthew DeLesDernier,

Assistant Secretary.

[FR Doc. 2022–03622 Filed 2–18–22; 8:45 am]

BILLING CODE 8011–01–P

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–94258; File No. SR–PEARL–2022–03]

Self-Regulatory Organizations; MIAX PEARL LLC; Notice of Filing of a Proposed Rule Change To Amend the MIAX PEARL Options Fee Schedule To Adopt a Tiered-Pricing Structure for Certain Connectivity Fees; Suspension of and Order Instituting Proceedings To Determine Whether To Approve or Disapprove the Proposed Rule Change

February 15, 2022.

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (''Act''),[1] and Rule 19b–4 thereunder,[2] notice is hereby given that on February 1, 2022, MIAX PEARL, LLC (''MIAX Pearl'' or ''Exchange'') filed with the Securities and Exchange Commission (''Commission'') a proposed rule change as described in Items I and II below, which Items have been prepared by the Exchange. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons and is, pursuant to Section 19(b)(3)(C) of the Act, hereby: (i) Temporarily suspending the rule change; and (ii) instituting proceedings to determine whether to approve or disapprove the proposed rule change.

[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

The Exchange is filing a proposal to amend the MIAX Pearl Options Fee Schedule (the ''Fee Schedule'') to amend certain connectivity fees.

The text of the proposed rule change is available on the Exchange's website at *http://www.miaxoptions.com/rule-filings,* at MIAX's principal office, and at the Commission's Public Reference Room.

II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the Exchange included statements concerning the purpose of and basis for the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in Item IV [sic] below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

The Exchange proposes to amend the Fee Schedule to adopt a tiered-pricing structure for the 10 gigabit (''Gb'') ultra-low latency (''ULL'') fiber connection available to Members [3] and non-Members. The Exchange initially filed this proposal on July 30, 2021, with the proposed fee changes effective beginning August 1, 2021 (''First Proposed Rule Change'').[4] The First Proposed Rule Change was published for comment in the **Federal Register** on August 17, 2021.[5] The Commission received one comment letter on the First Proposed Rule Change.[6] The Exchange withdrew the First Proposed Rule Change on September 24, 2021 and re-submitted the proposal on September 24, 2021, with the proposed fee changes being immediately effective (''Second Proposed Rule Change'').[7] The Second Proposed Rule Change was published for comment in the **Federal Register** on October 4, 2021.[8] The Second Proposed Rule Change provided additional justification for the proposed fee changes and addressed certain points raised in the single comment letter that was submitted on the First Proposed Rule Change. The Commission received four comment letters from three separate commenters on the Second Proposed Rule Change.[9] The Commission suspended the Second Proposed Rule Change on November 22, 2021.[10] The Exchange withdrew the Second Proposed Rule Change on December 1, 2021 and submitted a revised proposal for immediate effectiveness (''Third Proposed Rule Change'').[11] The Third Proposed Rule Change meaningfully attempted to address issues or questions that have been raised by providing additional justification and explanation for the proposed fee changes and directly respond to the points raised in SIG Letters 1, 2, and 3, as well as the SIFMA Letter submitted on the First and Second Proposed Rule Changes,[12] and feedback provided by Commission Staff during a telephone conversation on November 18, 2021 relating to the Second Proposed Rule Change. The Third Proposed Rule Change was published for comment in the **Federal Register** on December 20, 2021.[13] The Exchange receive no comment letters on the Third Proposed Rule Change. The Commission suspended the Third Proposed Rule Change on January 27, 2022.[14] The Exchange withdrew the Third Proposed Rule Change on February 1, 2022 and now submits this proposal for immediate effectiveness (''Fourth Proposed Rule Change''). This Fourth Proposed Rule Change provides additional justification and explanation for the proposed fee changes.

10Gb ULL Tiered-Pricing Structure

The Exchange proposes to amend Sections 5)a)–b) of the Fee Schedule to provide for a tiered-pricing structure for 10Gb ULL connections for Members and non-Members. Prior to the First Proposed Rule Change, the Exchange assessed Members and non-Members a flat monthly fee of $10,000 per 10Gb ULL connection for access to the Exchange's primary and secondary facilities.

The Exchange now proposes to move from a flat monthly fee per connection to a tiered-pricing structure under which the monthly fee would vary depending on the number of 10Gb ULL connections each Member or non-Member elects to purchase per exchange. Specifically, the Exchange proposes to decrease the fee for the first and second 10Gb ULL connections for each Member and non-Member from the current flat monthly fee of $10,000 to $9,000 per connection. To encourage more efficient connectivity usage, the Exchange proposes to increase the per connection fee for Members and non-Members that purchase more than two 10Gb ULL connections. In particular, (i) the third and fourth 10Gb ULL connections for each Member or non-Member will increase from the current flat monthly fee of $10,000 to $11,000 per connection; and (ii) for the fifth 10Gb ULL connection, and each 10Gb ULL connection purchased by Members and non-Members thereafter, the fee will increase from the flat monthly fee

[3] The term ''Member'' means an individual or organization that is registered with the Exchange pursuant to Chapter II of these Rules for purposes of trading on the Exchange as an ''Electronic Exchange Member'' or ''Market Maker.'' Members are deemed ''members'' under the Exchange Act. *See* Exchange Rule 100.

[4] *See* Securities Exchange Act Release No. 92644 (August 11, 2021), 86 FR 46055 (August 17, 2021) (SR–PEARL–2021–36).

[5] *Id.*

[6] *See* Letter from Richard J. McDonald, Susquehanna International Group, LLC (''SIG''), to Vanessa Countryman, Secretary, Commission, dated September 7, 2021 (''SIG Letter 1'').

[7] *See* Securities Exchange Act Release No. 93162 (September 28, 2021), 86 FR 54739 (October 4, 2021) (SR–PEARL–2021–45).

[8] *Id.*

[9] *See* letters from Richard J. McDonald, SIG, to Vanessa Countryman, Secretary, Commission, dated October 1, 2021 (''SIG Letter 2'') and October 26, 2021 (''SIG Letter 3''). *See also* letter from Tyler Gellasch, Executive Director, Healthy Markets Association (''HMA''), to Hon. Gary Gensler, Chair, Commission, dated October 29, 2021 (commenting on SR–CboeEDGA–2021–017, SR–CboeBYX–2021–020, SR–Cboe–BZX–2021–047, SR–CboeEDGX–2021–030, SR–MIAX–2021–41, SR–PEARL–2021–45, and SR–EMERALD–2021–29 and stating that ''MIAX has repeatedly filed to change its connectivity fees in a way that will materially lower costs for many users, while increasing the costs for some of its heaviest of users. These filings have been withdrawn and repeatedly refiled. *Each time, however, the filings contain significantly greater information about who is impacted and how than other filings that have been permitted to take effect without suspension*'') (*emphasis added*) (''HMA Letter''); *and* Ellen Green, Managing Director, Equity and Options Market Structure, Securities Industry and Financial Markets Association (''SIFMA''), to Vanessa Countryman, Secretary, Commission, dated November 26, 2021 (''SIFMA Letter'').

[10] *See* Securities Exchange Act Release No. 93639 (November 22, 2021), 86 FR 67758 (November 29, 2021).

[11] *See* Securities Exchange Act Release No. 93774 (December 14, 2021), 86 FR 71952 (December 20, 2021) (SR–PEARL–2021–57).

[12] The Exchange notes that while the HMA Letter applauds the level of disclosure the Exchange included in the First and Second Proposed Rule Changes, the HMA Letter does not raise specific issues with the First or Second Proposed Rule Changes. Rather, it references the Exchange's proposals by way of comparison to show the varying levels of transparency in exchange fees filings and recommends changes to the Commission's review process of exchange fee filings generally. Therefore, the Exchange does not feel it is necessary to address the issues raised in the HMA Letter.

[13] *See supra* note 11.

[14] *See* Securities Exchange Act Release No. 94088 (January 27, 2022) (Suspension of and Order Instituting Proceedings to Determine Whether to Approve or Disapprove Proposed Rule Changes to Amend the Fee Schedules to Adopt a Tiered-Pricing Structure for Certain Connectivity Fees).

of $10,000 to $13,000 per connection. The proposed 10Gb ULL tiered-pricing structure and fees are collectively referred to herein as the ''Proposed Access Fees.''

The Exchange believes the other exchanges' connectivity fees are a useful example of alternative approaches to providing and charging for connectivity and provides the below table for comparison purposes only to show how its proposed fees compare to fees currently charged by other options exchanges for similar connectivity. As shown by the below table, the Exchange's proposed highest tier is still less than fees charged for similar connectivity provided by other options exchanges.

Exchange	Type of port	Monthly fee
MIAX Pearl Options (as proposed)	10Gb ULL	1–2 connection. $9,000.00 3–4 connections. $11,000.00 5 or more. $13,000.00.
The NASDAQ Stock Market LLC (''NASDAQ'') [15].	10Gb Ultra fiber	$15,000.00.
Nasdaq ISE LLC (''ISE'') [16]	10Gb Ultra fiber	$15,000.00.
Nasdaq PHLX LLC (''PHLX'') [17]	10Gb Ultra Fiber	$15,000.00.
NYSE American LLC (''Amex'') [18]	10Gb LX LCN	$22,000.00.

The Exchange will continue to assess monthly Member and non-Member network connectivity fees for connectivity to the primary and secondary facilities in any month the Member or non-Member is credentialed to use any of the Exchange APIs or market data feeds in the production environment. The Exchange proposes to pro-rate the fees when a Member or non-Member makes a change to the connectivity (by adding or deleting connections) with such pro-rated fees based on the number of trading days that the Member or non-Member has been credentialed to utilize any of the Exchange APIs or market data feeds in the production environment through such connection, divided by the total number of trading days in such month multiplied by the applicable monthly rate. The Exchange will continue to assess monthly Member and non-Member network connectivity fees for connectivity to the disaster recovery facility in each month during which the Member or non-Member has established connectivity with the disaster recovery facility.

The Exchange's MIAX Express Network Interconnect (''MENI'') can be configured to provide Members and non-Members of the Exchange network connectivity to the trading platforms, market data systems, test systems, and disaster recovery facilities of both the Exchange and its affiliate, Miami International Securities Exchange, LLC (''MIAX''), via a single, shared connection. Members and non-Members utilizing the MENI to connect to the trading platforms, market data systems, test systems, and disaster recovery facilities of the Exchange and MIAX via a single, shared connection will continue to only be assessed one monthly connectivity fee per connection, regardless of the trading platforms, market data systems, test systems, and disaster recovery facilities accessed via such connection.

2. Statutory Basis

The Exchange believes that the Proposed Access Fees are consistent with Section 6(b) of the Act [19] in general, and furthers the objectives of Section 6(b)(4) of the Act [20] in particular, in that they provide for the equitable allocation of reasonable dues, fees and other charges among Members and other persons using any facility or system which the Exchange operates or controls. The Exchange also believes the Proposed Access Fees further the objectives of Section 6(b)(5) of the Act [21] in that they are designed to promote just and equitable principles of trade, remove impediments to and perfect the mechanism of a free and open market and a national market system, and, in general protect investors and the public interest and are not designed to permit unfair discrimination between customers, issuers, brokers and dealers.

On March 29, 2019, the Commission issued an Order disapproving a proposed fee change by the BOX Market LLC Options Facility to establish connectivity fees for its BOX Network (the ''BOX Order'').[22] On May 21, 2019, the Commission Staff issued guidance ''to assist the national securities exchanges and FINRA . . . in preparing Fee Filings that meet their burden to demonstrate that proposed fees are consistent with the requirements of the Securities Exchange Act.'' [23] Based on both the BOX Order and the Guidance, the Exchange believes that the Proposed Access Fees are consistent with the Act because they (i) are reasonable, equitably allocated, not unfairly discriminatory, and not an undue burden on competition; (ii) comply with the BOX Order and the Guidance; (iii) are supported by evidence (including comprehensive revenue and cost data and analysis) that they are fair and reasonable because they will not result in excessive pricing or supra-competitive profit; and (iv) utilize a cost-based justification framework that is substantially similar to a framework previously used by the Exchange, and its affiliates MIAX Emerald, LLC (''MIAX Emerald'') and MIAX, to amend other non-transaction fees.[24]

The Proposed Access Fees Will Not Result in a Supra-Competitive Profit

The Exchange believes that exchanges, in setting fees of all types, should meet very high standards of transparency to demonstrate why each new fee or fee amendment meets the requirements of the Act that fees be reasonable, equitably allocated, not unfairly discriminatory, and not create an undue burden on competition among market participants. The Exchange believes this high standard is especially

[15] *See* NASDAQ Rules, General 8: Connectivity, Section 1. Co-Location Services.

[16] *See* PHLX Rules, General 8: Connectivity.

[17] *See* ISE Rules, General 8: Connectivity.

[18] *See* NYSE American Options Fee Schedule, Section IV.

[19] 15 U.S.C. 78f(b).

[20] 15 U.S.C. 78f(b)(4).

[21] 15 U.S.C. 78f(b)(5).

[22] *See* Securities Exchange Act Release No. 85459 (March 29, 2019), 84 FR 13363 (April 4, 2019) (SR–BOX–2018–24, SR–BOX–2018–37, and SR–BOX–2019–04) (Order Disapproving Proposed Rule Changes to Amend the Fee Schedule on the BOX Market LLC Options Facility to Establish BOX Connectivity Fees for Participants and Non-Participants Who Connect to the BOX Network).

[23] *See* Staff Guidance on SRO Rule Filings Relating to Fees (May 21, 2019), at *https://www.sec.gov/tm/staff-guidance-sro-rule-filings-fees* (the ''Guidance'').

[24] *See* Securities Exchange Act Release Nos. 91460 (April 2, 2021), 86 FR 18349 (SR–EMERALD–2021–11) (proposal to adopt port fees, increase connectivity fees, and increase additional limited service ports); 91033 (February 1, 2021), 86 FR 8455 (February 5, 2021) (SR–EMERALD–2021–03) (proposal to adopt trading permit fees); 90980 (January 25, 2021), 86 FR 7602 (January 29, 2021) (SR–MIAX–2021–02) (proposal to increase connectivity fees).

important when an exchange imposes various access fees for market participants to access an exchange's marketplace. The Exchange deems connectivity to be access fees. It records these fees as part of its ''Access Fees'' revenue in its financial statements.

In the Guidance, the Commission Staff stated that, ''[a]s an initial step in assessing the reasonableness of a fee, staff considers whether the fee is constrained by significant competitive forces.'' [25] The Guidance further states that, ''. . . even where an SRO cannot demonstrate, or does not assert, that significant competitive forces constrain the fee at issue, a cost-based discussion may be an alternative basis upon which to show consistency with the Exchange Act.'' [26] In its Guidance, the Commission Staff further states that, ''[i]f an SRO seeks to support its claims that a proposed fee is fair and reasonable because it will permit recovery of the SRO's costs, or will not result in excessive pricing or supracompetitive profit, specific information, including quantitative information, should be provided to support that argument.'' [27] The Exchange does not assert that the Proposed Access Fees are constrained by competitive forces. Rather, the Exchange asserts that the Proposed Access Fees are reasonable because they will permit recovery of the Exchange's costs in providing access services to supply 10Gb ULL connectivity and will not result in the Exchange generating a supra-competitive profit.

The Guidance defines ''supra-competitive profit'' as ''profits that exceed the profits that can be obtained in a competitive market.'' [28] The Commission Staff further states in the Guidance that ''the SRO should provide an analysis of the SRO's baseline revenues, costs, and profitability (before the proposed fee change) and the SRO's expected revenues, costs, and profitability (following the proposed fee change) for the product or service in question.'' [29] The Exchange provides this analysis below.

Based on this analysis, the Exchange believes the Proposed Access Fees are reasonable and do not result in a ''supra-competitive'' [30] profit. The Exchange believes that it is important to demonstrate that the Proposed Access Fees are based on its costs and reasonable business needs. The Exchange believes the Proposed Access Fees will allow the Exchange to offset expenses the Exchange has and will incur, and that the Exchange provides sufficient transparency (described below) into the costs and revenue underlying the Proposed Access Fees. Accordingly, the Exchange provides an analysis of its revenues, costs, and profitability associated with the Proposed Access Fees. This analysis includes information regarding its methodology for determining the costs and revenues associated with the Proposed Access Fees. As a result of this analysis, the Exchange believes the Proposed Access Fees are fair and reasonable as a form of cost recovery plus present the possibility of a reasonable return for the Exchange's aggregate costs of offering connectivity to the Exchange and MIAX.

The Proposed Access Fees are based on a cost-plus model. In determining the appropriate fees to charge, the Exchange considered its costs and MIAX's costs to provide connectivity, using what it believes to be a conservative methodology (*i.e.,* that strictly considers only those costs that are most clearly directly related to the provision and maintenance of 10Gb ULL connectivity) to estimate such costs,[31] as well as the relative costs of providing and maintaining 10Gb ULL connectivity, and set fees that are designed to cover its costs with a limited return in excess of such costs. However, as discussed more fully below, such fees may also result in the Exchange recouping less than all of its costs of providing and maintaining 10Gb ULL connectivity because of the uncertainty of forecasting subscriber decision making with respect to firms' connectivity needs and the likely potential for increased costs to procure the third-party services described below.

To determine the Exchange's costs to provide access services associated with the Proposed Access Fees, the Exchange conducted an extensive cost review in which the Exchange analyzed nearly every expense item in the Exchange's general expense ledger to determine whether each such expense relates to the Proposed Access Fees, and, if such expense did so relate, what portion (or percentage) of such expense actually supports access services associated with the Proposed Access Fees.

The Exchange also provides detailed information regarding the Exchange's cost allocation methodology—namely, information that explains the Exchange's rationale for determining that it was reasonable to allocate certain expenses described in this filing towards the cost to the Exchange to provide the access services associated with the Proposed Access Fees. The Exchange conducted a thorough internal analysis to determine the portion (or percentage) of each expense to allocate to the support of access services associated with the Proposed Access Fees. This analysis [32] included discussions with each Exchange department head to determine the expenses that support access services associated with the Proposed Access Fees. This included numerous meetings between the Exchange's Chief Information Officer, Chief Financial Officer, Head of Strategic Planning and Operations, Chief Technology Officer, various members of the Legal Department, and other group leaders. The Exchange reviewed each individual expense to determine if such expense was related to the Proposed Access Fees. Once the expenses were identified, the Exchange department heads, with the assistance of our internal finance department, reviewed such expenses holistically on an Exchange-wide level to determine what portion of that expense supports providing access services for the Proposed Access Fees. The sum of all such portions of expenses represents the total cost to the Exchange to provide access services associated with the Proposed Access Fees. For the avoidance of doubt, no expense amount was allocated twice.

The internal cost analysis conducted by the Exchange is a proprietary process that is designed to make a fair and reasonable assessment of costs and resources allocated to support the provision of access services associated with the Proposed Access Fees. The Exchange acknowledges that this assessment can only capture a moment in time and that costs and resource allocations may change. That is why the Exchange has historically, and on an ongoing basis, periodically revisits its costs and resource allocations to ensure it is appropriately allocating resources to properly provide services to the Exchange's constituents. Any requirement that an exchange should

[25] *See* Guidance, *supra* note 23.

[26] *Id.*

[27] *Id.*

[28] *Id.*

[29] *Id.*

[30] *Id.*

[31] For example, the Exchange only included the costs associated with providing and supporting connectivity and excluded from its connectivity cost calculations any cost not directly associated with providing and maintaining such connectivity. Thus, the Exchange notes that this methodology underestimates the total costs of providing and maintaining connectivity.

[32] A description of the Exchange's methodology for determining the portion (or percentage) of each expense to allocate to the Proposed Access Fees is being provided in response to comments from SIG and SIFMA. *See* SIG Letter 3 *and* SIFMA Letter, *supra* note 9.

conduct a periodic re-evaluation on a set timeline of its cost justification and amend its fees accordingly should be established by the Commission holistically, applied to all exchanges and not just through pending fee proposals, such as this filing. In order to be fairly applied, such a mandate should be applied to existing access fees as well.

In accordance with the Guidance, the Exchange has provided sufficient detail to support a finding that the proposed fees are consistent with the Exchange Act. The proposal includes a detailed description of the Exchange's costs and how the Exchange determined to allocate those costs related to the proposed fees. In fact, the detail and analysis provided in this proposed rule change far exceed the level of disclosure provided in other exchange fee filings that have not been suspended by the Commission during its 60-day suspension period. A finding that this proposed rule change is inconsistent with the Exchange Act would run contrary to the Commission Staff's treatment of other recent exchange fee proposals that have not been suspended and remain in effect today.[33] For example, a proposed fee filing that closely resembles the Exchange's current filing was submitted in 2020 by the Cboe Exchange, Inc. (''Cboe'') and increased fees for Cboe's 10Gb connections.[34] This filing was submitted on September 2, 2020, nearly 15 months after the Staff's Guidance was issued. In that filing, the Cboe stated that the ''proposed changes were not designed with the objective to generate an overall increase in access fee revenue.'' [35] This filing provided no cost based data to support its assertion that the proposal was intended to be revenue neutral. Among other things, Cboe did not provide a description of the costs underlying its provision of 10Gb connections to show that this particular fee did not generate a supra-competitive profit or describe how any potential profit may be offset by increased costs associated with another fee included in its proposal. This filing, nonetheless, was not suspended by the Commission and remains in effect today.

The Exchange believes exchanges, like all businesses, should be provided flexibility when allocating costs and resources they deem necessary to operate their business, including providing market data and access services. The Exchange notes that costs and resource allocations may vary from business to business and, likewise, costs and resource allocations may differ from exchange to exchange when it comes to providing market data and access services. It is a business decision that must be evaluated by each exchange as to how to allocate internal resources and what costs to incur internally or via third parties that it may deem necessary to support its business and its provision of market data and access services to market participants. An exchange's costs may also vary based on fees charged by third parties and periodic increases to those fees that may be outside of the control of an exchange.[36]

To determine the Exchange's projected revenue associated with the Proposed Access Fees, the Exchange analyzed the number of Members and non-Members currently utilizing the 10Gb ULL fiber connection and used a recent monthly billing cycle representative of 2021 monthly revenue. The Exchange also provided its baseline by analyzing July 2021, the monthly billing cycle prior to the Proposed Access Fees going into effect, and compared it to its expenses for that month.[37] As discussed below, the Exchange does not believe it is appropriate to factor into its analysis future revenue growth or decline into its projections for purposes of these calculations, given the uncertainty of such projections due to the continually changing access needs of market participants and potential increase in internal and third party expenses. The Exchange is presenting its revenue and expense associated with the Proposed Access Fees in this filing in a manner that is consistent with how the Exchange presents its revenue and expense in its Audited Unconsolidated Financial Statements. The Exchange's most recent Audited Unconsolidated Financial Statement is for 2020. However, since the revenue and expense associated with the Proposed Access Fees were not in place in 2020 or for the first seven months of 2021, the Exchange believes its 2020 Audited Unconsolidated Financial Statement is not representative of its current total annualized revenue and costs associated with the Proposed Access Fees. Accordingly, the Exchange believes it is more appropriate to analyze the Proposed Access Fees utilizing its 2021 revenue and costs, as described herein, which utilize the same presentation methodology as set forth in the Exchange's previously-issued Audited Unconsolidated Financial Statements. Based on this analysis, the Exchange believes that the Proposed Access Fees are reasonable because they will allow the Exchange to recover its costs associated with providing access services related to the Proposed Access Fees and not result in excessive pricing or supra-competitive profit.

As outlined in more detail below, the Exchange and MIAX project that the final annualized expense for 2021 to provide all network connectivity services (that is, the shared network connectivity of all connectivity alternatives of the Exchange and MIAX, but excluding MIAX Emerald) to be approximately $15.9 million per annum or an average of $1,325,000 per month. The Exchange implemented the Proposed Access Fees on August 1, 2021 in the First Proposed Rule Change. For July 2021, prior to the Proposed Access Fees, the Exchange and MIAX Members and non-Members purchased a total of 156 10Gb ULL connections for which the Exchange and MIAX charged a total of approximately $1,547,620 (this includes MIAX Pearl Options and MIAX Members and non-Members dropping or adding connections mid-month, resulting a pro-rated charge at times). This resulted in a profit of $222,620 for that month (a profit margin of 14.4%). For the month of October 2021, which includes the tiered rates for 10Gb ULL connectivity for the Proposed Access Fees, MIAX Pearl Options and MIAX Exchange Members and non-Members purchased a total of 154 10Gb ULL connections for which the Exchange and MIAX charged a total of approximately $1,684,000 for that month (also including pro-rated connection charges). This resulted in a profit of $359,000 for that month for a profit margin of 21.3% (a modest 6.9% profit margin increase from July 2021 to October 2021 from 14.4% to 21.3%). The Exchange believes that the Proposed Access Fees are reasonable because they only generate an additional 6.9% of profit margin per-month (reflecting a 21.3% profit

[33] *See, e.g.,* Securities Exchange Act Release Nos. 91339 (March 17, 2021), 86 FR 15524 (March 23, 2021) (SR–CboeBZX–2021–020) (increasing fees for a market data product while not providing a cost based justification for the increase); 93293 (October 21, 2021), 86 FR 57716 (October 18, 2021) (SR–PHLX–2021–058) (increasing fees for historical market data while not providing a cost based justification for the increase); 92970 (September 14, 2021), 86 FR 52261 (September 20, 2021) (SR–CboeBZX–2021–047) (adopting fees for a market data related product while not providing a cost based justification for the fees); and 89826 (September 10, 2021), 85 FR 57900 (September 16, 2021) (SR–CBOE–2020–086) (increasing connectivity fees without including a cost based justification).

[34] *See* Securities Exchange Act Release No. 89826 (September 10, 2020), 85 FR 57900 (September 16, 2020) (SR–CBOE–2020–086) (increasing connectivity fees without including a cost based justification).

[35] *See id.* at 57909.

[36] *See supra* note 32.

[37] *Id.*

margin).[38] The Exchange cautions that this profit margin is likely to fluctuate from month to month based on the uncertainty of predicting how many connections may be purchased from month to month as Members and non-Members are able to add and drop connections at any time based on their own business decisions. This profit margin may also decrease due to the significant inflationary pressure on capital items that the Exchange needs to purchase to maintain the Exchange's technology and systems.[39]

The Exchange and MIAX have been subject to price increases upwards of 30% during the past year on network equipment due to supply chain shortages. This, in turn, results in higher overall costs for ongoing system maintenance, but also to purchase the items necessary to ensure ongoing system resiliency, performance, and determinism. These costs are expected to continue to go up as the U.S. economy continues to struggle with supply chain and inflation related issues.

As mentioned above, the Exchange and MIAX project that the annualized expense for 2021 to provide network connectivity services (all connectivity alternatives) to be approximately $15.9 million per annum or an average of $1,325,000 per month and that these costs are expected to increase not only due to anticipated significant inflationary pressure, but also periodic fee increases by third parties.[40] The Exchange notes that there are material costs associated with providing the infrastructure and headcount to fully-support access to the Exchange. The Exchange incurs technology expense related to establishing and maintaining Information Security services, enhanced network monitoring and customer reporting, as well as Regulation SCI mandated processes, associated with its network technology. While some of the expense is fixed, much of the expense is not fixed, and thus increases the cost to the Exchange to provide access services associated with the Proposed Access Fees. For example, new Members to the Exchange may require the purchase of additional hardware to support those Members as well as enhanced monitoring and reporting of customer performance that the Exchange and its affiliates provide. Further, as the total number Members increases, the Exchange and its affiliates may need to increase their data center footprint and consume more power, resulting in increased costs charged by their third-party data center provider. Accordingly, the cost to the Exchange and its affiliates to provide access to its Members is not fixed. The Exchange believes the Proposed Access Fees are a reasonable attempt to offset a portion of the costs to the Exchange associated with providing access to its network infrastructure.

The Exchange only has four primary sources of revenue and cost recovery mechanisms to fund all of its operations: transaction fees, access fees (which includes the Proposed Access Fees), regulatory fees, and market data fees. Accordingly, the Exchange must cover all of its expenses from these four primary sources of revenue and cost recovery mechanisms. Until recently, the Exchange has operated at a cumulative net annual loss since it launched operations in 2017.[41] This is a result of providing a low cost alternative to attract order flow and encourage market participants to experience the high determinism and resiliency of the Exchange's trading Systems.[42] To do so, the Exchange chose to waive the fees for some non-transaction related services or provide them at a very marginal cost, which was not profitable to the Exchange. This resulted in the Exchange forgoing revenue it could have generated from assessing higher fees.

The Exchange believes that the Proposed Access Fees are fair and reasonable because they will not result in excessive pricing or supra-competitive profit, when comparing the total annual expense that the Exchange projects to incur in connection with providing these access services versus the total annual revenue that the Exchange projects to collect in connection with services associated with the Proposed Access Fees. As mentioned above, for 2021,[43] the total annual expense for MIAX Pearl Options and MIAX for providing the access services associated with the Proposed Access Fees is projected to be approximately $15.9 million, or approximately $1,325,000 per month. This projected total annual expense is comprised of the following, all of which are directly related to the access services associated with the Proposed Access Fees: (1) Third-party expense, relating to fees paid by the Exchange to third-parties for certain products and services; and (2) internal expense, relating to the internal costs of the Exchange to provide the services associated with the Proposed Access Fees.[44] As noted above, the Exchange believes it is more appropriate to analyze the Proposed Access Fees utilizing its 2021 revenue and costs, which utilize the same presentation methodology as set forth in the Exchange's previously-issued Audited Unconsolidated Financial Statements.[45] The $15.9 million projected total annual expense is directly related to the access services associated with the Proposed Access Fees, and not any other product or service offered by the Exchange or MIAX. It does not include general costs of operating matching engines and other trading technology. No expense amount was allocated twice. Further, the Exchange notes that, with respect to the MIAX Pearl Options' expenses included

[38] The Exchange notes that this profit margin differs from the First and Second Proposed Rule Changes because the Exchange now has the benefit of using a more recent billing cycle under the Proposed Access Fees (October 2021) and comparing it to a baseline month (July 2021) from before the Proposed Access Fees were in effect.

[39] *See* ''Supply chain chaos is already hitting global growth. And it's about to get worse'', by Holly Ellyatt, CNBC, *available at https://www.cnbc.com/2021/10/18/supply-chain-chaos-is-hitting-global-growth-and-could-get-worse.html* (October 18, 2021); *and* ''There will be things that people can't get, at Christmas, White House warns'' by Jarrett Renshaw and Trevor Hunnicutt, Reuters, *available at https://www.reuters.com/world/us/americans-may-not-get-some-christmas-treats-white-house-officials-warn-2021-10-12/* (October 12, 2021).

[40] For example, on October 20, 2021, ICE Data Services announced a 3.5% price increase effective January 1, 2022 for most services. The price increase by ICE Data Services includes their SFTI network, which is relied on by a majority of market participants, including the Exchange. *See* email from ICE Data Services to the Exchange, dated October 20, 2021. The Exchange further notes that on October 22, 2019, the Exchange was notified by ICE Data Services that it was raising its fees charged to the Exchange by approximately 11% for the SFTI network.

[41] The Exchange has incurred a cumulative loss of $86 million since its inception in 2017 to 2020, the last year for which the Exchange's Form 1 data is available. *See* Exchange's Form 1/A, Application for Registration or Exemption from Registration as a National Securities Exchange, filed July 28, 2021, *available at https://www.sec.gov/Archives/edgar/vprr/2100/21000461.pdf.*

[42] The term ''System'' means the automated trading system used by the Exchange for the trading of securities. *See* Exchange Rule 100.

[43] The Exchange has not yet finalized its 2021 year end results.

[44] The percentage allocations used in this proposed rule change may differ from past filings from the Exchange or its affiliates due to, among other things, changes in expenses charged by third-parties, adjustments to internal resource allocations, and different system architecture of the Exchange as compared to its affiliates.

[45] For example, the Exchange previously noted that all third-party expense described in its prior fee filing was contained in the information technology and communication costs line item under the section titled ''Operating Expenses Incurred Directly or Allocated From Parent,'' in the Exchange's 2019 Form 1 Amendment containing its financial statements for 2018. *See* Securities Exchange Act Release No. 87876 (December 31, 2019), 85 FR 757 (January 7, 2020) (SR–PEARL–2019–36). Accordingly, the third-party expense described in this filing is attributed to the same line item for the Exchange's 2021 Form 1 Amendment, which will be filed in 2022.

herein, those expenses only cover the MIAX Pearl options market; expenses associated with MIAX Pearl Equities are accounted for separately and are not included within the scope of this filing.

As discussed above, the Exchange conducted an extensive cost review in which the Exchange analyzed nearly every expense item in the Exchange's general expense ledger (this includes over 150 separate and distinct expense items) to determine whether each such expense relates to the access services associated with the Proposed Access Fees, and, if such expense did so relate, what portion (or percentage) of such expense actually supports those services, and thus bears a relationship that is, ''in nature and closeness,'' directly related to those services. In performing this calculation, the Exchange considered other services and to which the expense may be applied and how much of the expense is directly and/or indirectly utilized in providing those other services. The sum of all such portions of expenses represents the total cost of the Exchange to provide access services associated with the Proposed Access Fees.

External Expense Allocations

For 2021, expenses relating to fees paid by the Exchange and MIAX to third-parties for products and services necessary to provide the access services associated with the Proposed Access Fees is projected to be $3.9 million. This includes, but is not limited to, a portion of the fees paid to: (1) Equinix for data center services, including for the primary, secondary, and disaster recovery locations of the Exchange's trading system infrastructure; (2) Zayo Group Holdings, Inc. (''Zayo'') for network services (fiber and bandwidth products and services) linking the Exchange's and its affiliates' office locations in Princeton, New Jersey and Miami, Florida, to all data center locations; (3) Secure Financial Transaction Infrastructure (''SFTI''),[46] which supports connectivity and feeds for the entire U.S. options industry; (4) various other services providers (including Thompson Reuters, NYSE, Nasdaq, and Internap), which provide content, connectivity services, and infrastructure services for critical components of options connectivity and network services; and (5) various other hardware and software providers (including Dell and Cisco, which support the production environment in which Members connect to the network to trade, receive market data, etc.).

For clarity, the Exchange took a conservative approach in determining the expense and the percentage of that expense to be allocated to providing access services in connection with the Proposed Access Fees. Only a portion of all fees paid to such third-parties is included in the third-party expenses described herein, and no expense amount is allocated twice. Accordingly, the Exchange does not allocate its entire information technology and communication costs to the access services associated with the Proposed Access Fees. This may result in the Exchange under allocating an expense to the provision of access services in connection with the Proposed Access Fees and such expenses may actually be higher or increase above what the Exchange utilizes within this proposal. Further, the Exchange notes that expenses associated with its affiliate, MIAX Emerald, are accounted for separately and are not included within the scope of this filing. Further, as part its ongoing assessment of costs and expenses (described above), the Exchange recently conducted a periodic thorough review of its expenses and resource allocations which, in turn, resulted in revised percentage allocations in this filing. Therefore, the percentage allocations used in this proposed rule change may differ from past filings from the Exchange or its affiliates due to, among other things, changes in expenses charged by third-parties, adjustments to internal resource allocations, and different system architecture of the Exchange as compared to its affiliates.

The Exchange believes it is reasonable to allocate such third-party expense described above towards the total cost to the Exchange and MIAX to provide the access services associated with the Proposed Access Fees. In particular, the Exchange believes it is reasonable to allocate the identified portion of the Equinix expense because Equinix operates the data centers (primary, secondary, and disaster recovery) that host the Exchange's network infrastructure. This includes, among other things, the necessary storage space, which continues to expand and increase in cost, power to operate the network infrastructure, and cooling apparatuses to ensure the Exchange's network infrastructure maintains stability. Without these services from Equinix, the Exchange would not be able to operate and support the network and provide the access services associated with the Proposed Access Fees to its Members and their customers. The Exchange did not allocate all of the Equinix expense toward the cost of providing the access services associated with the Proposed Access Fees, only that portion which the Exchange identified as being specifically mapped to providing the access services associated with the Proposed Access Fees. According to the Exchange's calculations, it allocated approximately 62% of the total applicable Equinix expense to providing the access services associated with the Proposed Access Fees. The Exchange believes this allocation is reasonable because it represents the Exchange's actual cost to provide the access services associated with the Proposed Access Fees, and not any other service, as supported by its cost review.[47]

The Exchange believes it is reasonable to allocate the identified portion of the Zayo expense because Zayo provides the internet, fiber and bandwidth connections with respect to the network, linking the Exchange with its affiliates, MIAX and MIAX Emerald, as well as the data center and disaster recovery locations. As such, all of the trade data, including the billions of messages each day per exchange, flow through Zayo's infrastructure over the Exchange's network. Without these services from Zayo, the Exchange would not be able to operate and support the network and provide the access services associated with the Proposed Access Fees. The Exchange did not allocate all of the Zayo expense toward the cost of providing the access services associated with the Proposed Access Fees, only the portion which the Exchange identified as being specifically mapped to providing the Proposed Access Fees. According to the Exchange's calculations, it allocated approximately 62% of the total applicable Zayo expense to providing the access services associated with the Proposed Access Fees. The Exchange believes this allocation is reasonable because it represents the Exchange's actual cost to provide the access services associated with the Proposed Access Fees, and not any other service, as supported by its cost review.[48]

The Exchange believes it is reasonable to allocate the identified portions of the

[46] *See supra* note 40.

[47] As noted above, the percentage allocations used in this proposed rule change may differ from past filings from the Exchange or its affiliates due to, among other things, changes in expenses charged by third-parties, adjustments to internal resource allocations, and different system architecture of the Exchange as compared to its affiliates. Again, as part its ongoing assessment of costs and expenses, the Exchange recently conducted a periodic thorough review of its expenses and resource allocations which, in turn, resulted in a revised percentage allocations in this filing.

[48] *Id.*

SFTI expense and various other service providers' (including Thompson Reuters, NYSE, Nasdaq, and Internap) expense because those entities provide connectivity and feeds for the entire U.S. options industry, as well as the content, connectivity services, and infrastructure services for critical components of the network. Without these services from SFTI and various other service providers, the Exchange would not be able to operate and support the network and provide access to its Members and their customers. The Exchange did not allocate all of the SFTI and other service providers' expense toward the cost of providing the access services associated with the Proposed Access Fees, only the portions which the Exchange identified as being specifically mapped to providing the access services associated with the Proposed Access Fees. According to the Exchange's calculations, it allocated approximately 75% of the total applicable SFTI and other service providers' expense to providing the access services associated with the Proposed Access Fees. The Exchange believes this allocation is reasonable because it represents the Exchange's actual cost to provide the access services associated with the Proposed Access Fees.[49]

The Exchange believes it is reasonable to allocate the identified portion of the other hardware and software provider expense because this includes costs for dedicated hardware licenses for switches and servers, as well as dedicated software licenses for security monitoring and reporting across the network. Without this hardware and software, the Exchange would not be able to operate and support the network and provide access to its Members and their customers. The Exchange did not allocate all of the hardware and software provider expense toward the cost of providing the access services associated with the Proposed Access Fees, only the portions which the Exchange identified as being specifically mapped to providing the access services associated with the Proposed Access Fees. According to the Exchange's calculations, it allocated approximately 51% of the total applicable hardware and software provider expense to providing the access services associated with the Proposed Access Fees. The Exchange believes this allocation is reasonable because it represents the Exchange's actual cost to provide the access services associated with the Proposed Access Fees.[50]

Internal Expense Allocations

For 2021, total projected internal expenses relating to the Exchange and MIAX providing the access services associated with the Proposed Access Fees are projected to be approximately $12 million. This includes, but is not limited to, costs associated with: (1) Employee compensation and benefits for full-time employees that support the access services associated with the Proposed Access Fees, including staff in network operations, trading operations, development, system operations, business, as well as staff in general corporate departments (such as legal, regulatory, and finance) that support those employees and functions (including an increase as a result of the higher determinism project); (2) depreciation and amortization of hardware and software used to provide the access services associated with the Proposed Access Fees, including equipment, servers, cabling, purchased software and internally developed software used in the production environment to support the network for trading; and (3) occupancy costs for leased office space for staff that provide the access services associated with the Proposed Access Fees. The breakdown of these costs is more fully-described below.

For clarity, and as stated above, the Exchange took a conservative approach in determining the expense and the percentage of that expense to be allocated to providing access services in connection with the Proposed Access Fees. Only a portion of all such internal expenses are included in the internal expense herein, and no expense amount is allocated twice. Accordingly, the Exchange does not allocate its entire costs contained in those items to the access services associated with the Proposed Access Fees. This may result in the Exchange under allocating an expense to the provision of access services in connection with the Proposed Access Fees and such expenses may actually be higher or increase above what the Exchange utilizes within this proposal. Further, as part its ongoing assessment of costs and expenses (described above), the Exchange recently conducted a periodic thorough review of its expenses and resource allocations which, in turn, resulted in a revised percentage allocations in this filing.

The Exchange believes it is reasonable to allocate such internal expense described above towards the total cost to the Exchange and MIAX to provide the access services associated with the Proposed Access Fees. In particular, the Exchange's and MIAX's combined employee compensation and benefits expense relating to providing the access services associated with the Proposed Access Fees is projected to be $6.1 million, which is only a portion of the approximately $12.6 million (for MIAX) and $9.2 million (for MIAX Pearl Options) total projected expense for employee compensation and benefits. The Exchange believes it is reasonable to allocate the identified portion of such expense because this includes the time spent by employees of several departments, including Technology, Back Office, Systems Operations, Networking, Business Strategy Development (who create the business requirement documents that the Technology staff use to develop network features and enhancements), Trade Operations, Finance (who provide billing and accounting services relating to the network), and Legal (who provide legal services relating to the network, such as rule filings and various license agreements and other contracts). As part of the extensive cost review conducted by the Exchange, the Exchange reviewed the amount of time spent by employees on matters relating to the provision of access services associated with the Proposed Access Fees. Without these employees, the Exchange would not be able to provide the access services associated with the Proposed Access Fees to its Members and their customers. The Exchange did not allocate all of the employee compensation and benefits expense toward the cost of the access services associated with the Proposed Access Fees, only the portions which the Exchange identified as being specifically mapped to providing the access services associated with the Proposed Access Fees. According to the Exchange's calculations, it allocated approximately 28% of the total applicable employee compensation and benefits expense to providing the access services associated with the Proposed Access Fees. The Exchange believes this allocation is reasonable because it represents the Exchange's actual cost to provide the access services associated with the Proposed Access Fees, and not any other service, as supported by its cost review.[51]

The Exchange's and MIAX's depreciation and amortization expense relating to providing the services associated with the Proposed Access

[49] *Id. See also supra* note 40 (regarding SFTI's announced fee increases).

[50] *See supra* note 47.

[51] *Id.*

Fees is projected to be $5.3 million, which is only a portion of the $4.8 million (for MIAX) and $2.9 million (for MIAX Pearl Options) total projected expense for depreciation and amortization. The Exchange believes it is reasonable to allocate the identified portion of such expense because such expense includes the actual cost of the computer equipment, such as dedicated servers, computers, laptops, monitors, information security appliances and storage, and network switching infrastructure equipment, including switches and taps that were purchased to operate and support the network and provide the access services associated with the Proposed Access Fees. Without this equipment, the Exchange would not be able to operate the network and provide the access services associated with the Proposed Access Fees to its Members and their customers. The Exchange did not allocate all of the depreciation and amortization expense toward the cost of providing the access services associated with the Proposed Access Fees, only the portion which the Exchange identified as being specifically mapped to providing the access services associated with the Proposed Access Fees. According to the Exchange's calculations, it allocated approximately 70% of the total applicable depreciation and amortization expense to providing the access services associated with the Proposed Access Fees, as these access services would not be possible without relying on such. The Exchange believes this allocation is reasonable because it represents the Exchange's actual cost to provide the access services associated with the Proposed Access Fees, and not any other service, as supported by its cost review.[52]

The Exchange's and MIAX's occupancy expense relating to providing the services associated with the Proposed Access Fees is projected to be approximately $0.6 million, which is only a portion of the $0.6 million (for MIAX) and $0.5 million (for MIAX Pearl Options) total projected expense for occupancy. The Exchange believes it is reasonable to allocate the identified portion of such expense because such expense represents the portion of the Exchange's cost to rent and maintain a physical location for the Exchange's staff who operate and support the network, including providing the access services associated with the Proposed Access Fees. This amount consists primarily of rent for the Exchange's Princeton, New Jersey office, as well as various related costs, such as physical security, property management fees, property taxes, and utilities. The Exchange operates its Network Operations Center (''NOC'') and Security Operations Center (''SOC'') from its Princeton, New Jersey office location. A centralized office space is required to house the staff that operates and supports the network. The Exchange currently has approximately 200 employees. Approximately two-thirds of the Exchange's staff are in the Technology department, and the majority of those staff have some role in the operation and performance of the access services associated with the Proposed Access Fees. Accordingly, the Exchange believes it is reasonable to allocate the identified portion of its occupancy expense because such amount represents the Exchange's actual cost to house the equipment and personnel who operate and support the Exchange's network infrastructure and the access services associated with the Proposed Access Fees. The Exchange did not allocate all of the occupancy expense toward the cost of providing the access services associated with the Proposed Access Fees, only the portion which the Exchange identified as being specifically mapped to operating and supporting the network. According to the Exchange's calculations, it allocated approximately 53% of the total applicable occupancy expense to providing the access services associated with the Proposed Access Fees. The Exchange believes this allocation is reasonable because it represents the Exchange's cost to provide the access services associated with the Proposed Access Fees, and not any other service, as supported by its cost review.[53]

The Exchange notes that a material portion of its total overall expense is allocated to the provision of access services (including connectivity, ports, and trading permits). The Exchange believes this is reasonable and in line, as the Exchange operates a technology-based business that differentiates itself from its competitors based on its more deterministic and resilient trading systems that rely on access to a high performance network, resulting in significant technology expense. Over two-thirds of Exchange staff are technology-related employees. The majority of the Exchange's expense is technology-based. As described above, the Exchange and MIAX have only four primary sources of fees to recover their costs; thus, the Exchange believes it is reasonable to allocate a material portion of its total overall expense towards access fees.

Based on the above, the Exchange believes that its provision of access services associated with the Proposed Access Fees will not result in excessive pricing or supra-competitive profit. As discussed above, the Exchange projects that its annualized expense for 2021 to provide network connectivity services (all connectivity alternatives) to be approximately $15.9 million per annum or an average of $1,325,000 per month. The Exchange implemented the Proposed Access Fees on August 1, 2021. For July 2021, prior to the Proposed Access Fees, Exchange Members and non-Members purchased a total of 156 10Gb ULL connections for which the Exchange and MIAX charged approximately $1,547,620. This resulted in a profit of $222,620 (a profit margin of 14.4%) for that month (including pro-rated charges). For the month of October 2021, which includes the tiered 10Gb ULL connectivity fees pursuant to the Proposed Access Fees, the Exchange and MIAX had Members and non-Members purchasing a total of 154 10Gb ULL connections for which the Exchange and MIAX charged a total of approximately $1,684,000 (including pro-rated charges). This resulted in a profit of $359,000 for that month for a profit margin of 21.3% (a modest 6.9% profit margin increase from July 2021 to October 2021 from 14.4% to 21.3%). The Exchange believes that the Proposed Access Fees are reasonable because they only generate an additional 6.9% of profit margin per month (reflecting a 21.3% profit margin).[54] The Exchange believes this modest increase in profit margin will allow it to continue to recoup its expenses and continue to invest in its technology infrastructure. Therefore, the Exchange also believes that this proposed profit margin increase is reasonable because it represents a reasonable rate of return.

Again, the Exchange cautions that this profit margin may fluctuate from month to month based in the uncertainty of predicting how many connections may be purchased from month to month as Members and non-Members are free to add and drop connections at any time based on their own business decisions. Notwithstanding that the revenue (and profit margin) may vary from month to month due to changes in connections and to changes to the Exchange's expenses, the number of connections has not materially changed over the prior months. Consequently, the Exchange believes that the months it has used as a baseline to perform its assessment are representative of

[52] *Id.*

[53] *Id.*

[54] *See supra* note 31.

reasonably anticipated costs and expenses. This profit margin may also decrease due to the significant inflationary pressure on capital items that it needs to purchase to maintain the Exchange's technology and systems.[55] Accordingly, the Exchange believes its total projected revenue for the providing the access services associated with the Proposed Access Fees will not result in excessive pricing or supra-competitive profit.

The Exchange believes that conducting the above analysis on a per month basis is reasonable as the revenue generated from access services subject to the proposed fee generally remains static from month to month. The Exchange also conducted the above analysis on a per month basis to comply with the Commission Staff's Guidance, which requires a baseline analysis to assist in determining whether the proposal generates a supra-competitive profit. This monthly analysis was also provided in response to comment received on prior submissions of this proposed rule change.

The Exchange reiterates that it only has four primary sources of revenue and cost recovery mechanisms: Transaction fees, access fees (which includes the Proposed Access Fees), regulatory fees, and market data fees. Accordingly, the Exchange must cover all of its expenses from these four primary sources of revenue and cost recovery mechanisms. As a result, each of these fees cannot be ''flat'' and cover only the expenses directly related to the fee that is charged. The above revenue and associated profit margin therefore are not solely intended to cover the costs associated with providing access services subject to the Proposed Access Fees.

The Exchange believes it is reasonable, equitable and not unfairly discriminatory to allocate the respective percentages of each expense category described above towards the total cost to the Exchange of operating and supporting the network, including providing the access services associated with the Proposed Access Fees because the Exchange performed a line-by-line item analysis of nearly every expense of the Exchange, and has determined the expenses that directly relate to providing access to the Exchange. Further, the Exchange notes that, without the specific third-party and internal expense items listed above, the Exchange would not be able to provide the access services associated with the Proposed Access Fees to its Members and their customers. Each of these expense items, including physical hardware, software, employee compensation and benefits, occupancy costs, and the depreciation and amortization of equipment, have been identified through a line-by-line item analysis to be integral to providing access services. The Proposed Access Fees are intended to recover the costs of providing access to the Exchange's System. Accordingly, the Exchange believes that the Proposed Access Fees are fair and reasonable because they do not result in excessive pricing or supra-competitive profit, when comparing the actual costs to the Exchange versus the projected annual revenue from the Proposed Access Fees.

The Proposed Tiered-Pricing Structure Is Not Unfairly Discriminatory and Provides for the Equitable Allocation of Fees, Dues, and Other Charges

The Exchange believes the proposed tiered-pricing structure is reasonable, fair, equitable, and not unfairly discriminatory because it will apply to all Members and non-Members in the same manner based on the amount of 10Gb ULL connectivity they require based on their own business decisions and usage of Exchange resources. All similarly situated Members and non-Members would be subject to the same fees. The fees do not depend on any distinction between Members and non-Members because they are solely determined by the individual Members' or non-Members' business needs and its impact on Exchange resources.

The proposed tiered-pricing structure is not unfairly discriminatory and provides for the equitable allocation of fees, dues, and other charges because it is designed to encourage Members and non-Members to be more efficient and economical when determining how to connect to the Exchange and the amount of the fees are based on the number of connections a Member or non-Member utilizes. Charging an incrementally higher fee to a Member or non-Member that utilizes numerous connections is directly related to the increased costs the Exchange incurs in providing and maintaining those additional connections. The proposed tiered pricing structure should also enable the Exchange to better monitor and provide access to the Exchange's network to ensure sufficient capacity and headroom in the System.

The Exchange believes that the proposal to move to a tiered-pricing structure for its 10Gb ULL connections is reasonable, equitably allocated and not unfairly discriminatory because the majority of Members and non-Members that purchase 10Gb ULL connections will either save money or pay the same amount after the tiered-pricing structure is implemented. After the effective date of the First Proposed Rule Change on August 1, 2021, approximately 80% of the firms that purchased at least one 10Gb ULL connection experienced a decrease in their monthly connectivity fees while only approximately 20% of firms experienced an increase in their monthly connectivity fees as a result of the proposed tiered-pricing structure when compared to the flat monthly fee structure. To illustrate, firms that purchase only one 10Gb ULL connection per month used to pay the flat rate of $10,000 per month for that one 10Gb ULL connection. Pursuant to the proposed tiered-pricing structure, these firms now pay $9,000 per month for that same one 10Gb ULL connection, saving $1,000 per month or $12,000 annually. Further, firms that purchase two 10Gb ULL connections per month previously paid a flat rate of $20,000 per month ($10,000 × 2) for those two 10Gb ULL connections. Pursuant to the proposed tiered-pricing structure, these firms now pay $18,000 per month ($9,000 × 2) for those two 10Gb ULL connections, saving $2,000 per month or $24,000 annually.

To achieve a consistent, premium network performance, the Exchange must build out and continue to maintain a network that has the capacity to handle the message rate requirements of not only firms that consume minimal Exchange connectivity resources, but also those firms that most heavily consume Exchange connectivity resources, network consumers, and purchasers of 10Gb ULL connectivity. 10Gb ULL connectivity is not an unlimited resource as the Exchange needs to purchase additional equipment to satisfy requests for additional connections. The Exchange also needs to provide personnel to set up new connections, service requests related to adding new and/or deleting existing connections, respond to performance queries from, and to maintain those connections on behalf of Members and non-Members. Also, those firms that utilize 10Gb ULL connectivity typically generate a disproportionate amount of messages and order traffic, usually billions per day across the Exchange. These billions of messages per day consume the Exchange's resources and significantly contribute to the overall network connectivity expense for storage and network transport capabilities. The Exchange also has to purchase additional storage capacity on an ongoing basis to ensure it has sufficient capacity to store these

[55] *See supra* note 39.

messages as part of it surveillance program and to satisfy its record keeping requirements under the Exchange Act.[56] Thus, as the number of connections an entity has increases, certain other costs incurred by the Exchange that are correlated to, though not directly affected by, connection costs (*e.g.,* storage costs, surveillance costs, service expenses) also increase.

The Exchange sought to design the proposed tiered-pricing structure to set the amount of the fees to relate to the number of connections a firm purchases. The more connections purchased by a firm likely results in greater expenditure of Exchange resources and increased cost to the Exchange. With this in mind, the Exchange proposes to decrease the monthly fees for those firms who connect to the Exchange as part of their best execution obligations and generally tend to send the least amount of orders and messages over those connections. The Exchange notes that firms that primarily route orders seeking best execution generally only purchase a limited number of connections. Those firms also generally send fewer orders and messages over those connections, resulting in less strain on Exchange resources. Therefore, the connectivity costs will likely be lower for these firms based on the proposed tiered-pricing structure.

On a similar note, the Exchange proposes to increase the fee for those firms that purchase more connections resulting in greater expenditure of Exchange resources and increased cost to the Exchange. The Exchange notes that these firms that purchase more than two to four 10Gb ULL connections essentially do so for competitive reasons amongst themselves and choose to utilize numerous connections based on their business needs and desire to attempt to access the market quicker by using the connection with the least amount of latency. These firms are generally engaged in sending liquidity removing orders to the Exchange and seek to add more connections so they can access resting liquidity ahead of their competitors. For instance, a Member may have just sent numerous messages and/or orders over one of their 10Gb ULL connections that are in queue to be processed. That same Member then seeks to enter an order to remove liquidity from the Exchange's Book. That Member may choose to send that order over one or more of their other 10Gb ULL connections with less message and/or order traffic to ensure that their liquidity taking order accesses the Exchange quicker because that connection's queue is shorter. These firms also tend to frequently add and drop connections mid-month to determine which connections have the least latency, which results in increased costs to the Exchange to frequently make changes in the data center and provide the additional technical and personnel support necessary to satisfy these requests.

The firms that engage in the above-described liquidity removing and advanced trading strategies typically require multiple connections and, therefore, generate higher costs by utilizing more of the Exchange's resources. Those firms may also conduct other latency measurements over their connections and drop and simultaneously add connections mid-month based on their own assessment of their performance. This results in Exchange staff processing such requests, potentially purchasing additional equipment, and performing the necessary network engineering to replace those connections in the data center. Therefore, the Exchange believes it is equitable for these firms to experience increased connectivity costs based on their disproportionate pull on Exchange resources to provide the additional connectivity.

In addition, the proposed tiered-pricing structure is equitable because it is designed to encourage Members and non-Members to be more efficient and economical when determining how to connect to the Exchange. Section 6(b)(5) of the Exchange Act requires the Exchange to provide access on terms that are not unfairly discriminatory.[57] As stated above, 10Gb ULL connectivity is not an unlimited resource and the Exchange's network is limited in the amount of connections it can provide. However, the Exchange must accommodate requests for additional connectivity and access to the Exchange's System to ensure that the Exchange is able to provide access on non-discriminatory terms and ensure sufficient capacity and headroom in the System. To accommodate requests for additional connectivity on top of current network capacity constraints, requires that the Exchange purchase additional equipment to satisfy these requests. The Exchange also needs to provide personnel to set up new connections and to maintain those connections on behalf of Members and non-Members. The proposed tiered-pricing structure is equitable because it is designed to encourage Members and non-Members to be more efficient and economical in selecting the amount of connectivity they request while balancing that against the Exchange's increased expenses when expanding its network to accommodate additional connectivity.

The Proposed Fees Are Reasonable When Compared to the Fees of Other Options Exchanges With Similar Market Share

The Exchange does not have visibility into other equities exchanges' costs to provide connectivity or their fee markup over those costs, and therefore cannot use other exchange's connectivity fees as a benchmark to determine a reasonable markup over the costs of providing connectivity. Nevertheless, the Exchange believes the other exchanges' connectivity fees are a useful example of alternative approaches to providing and charging for connectivity. To that end, the Exchange believes the proposed tiered-pricing structure for 10Gb ULL connections is reasonable because the proposed highest tier is still less than fees charged for similar connectivity provided by other options exchanges with comparable market shares. For example, NASDAQ (equity options market share of 8.88% as of November 26, 2021 for the month of November)[58] charges a monthly fee of $10,000 per 10Gb fiber connection and $15,000 per 10Gb Ultra fiber connection.[59] The highest tier of the Exchange's proposed fee structure for a 10Gb ULL connection is $13,000 for the fifth and subsequent connections, which is $2,000 per month less than NASDAQ and, unlike NASDAQ, the Exchange does not charge installation fees. For market participants with fewer connections, the difference is even more stark. For a market participant with two connections to the Exchange and two connections to NASDAQ, the difference in connection fees would be $12,000 per month. The Exchange notes that the same connectivity fees described above for NASDAQ also apply to its affiliates, ISE[60] (equity options market share of 7.96% as of November 26, 2021 for the month of November)[61] and PHLX (equity options market share of 9.31% as of November 26, 2021 for the month

[56] 17 CFR 240.17a–1 (recordkeeping rule for national securities exchanges, national securities associations, registered clearing agencies and the Municipal Securities Rulemaking Board).

[57] 15 U.S.C. 78f(b)(5).

[58] See ''The market at a glance,'' *available at https://www.miaxoptions.com/* (last visited November 26, 2021).

[59] *See* NASDAQ Rules, General 8: Connectivity, Section 1. Co-Location Services.

[60] *See* ISE Rules, General 8: Connectivity.

[61] *See supra* note 58.

of November).[62] Amex (equity options market share of 5.05% as of November 26, 2021 for the month of November) [63] charges $15,000 per connection initially plus $22,000 monthly per 10Gb LX LCN circuit connection.[64] Again, the highest tier of the Exchange's proposed fee structure for a 10Gb ULL connection is $9,000 per month lower than the Amex connectivity fee after the first month.

In the each of the above cases, the Exchange's highest tier in the proposed tiered-pricing structure only applies to the fifth and additional connections and is still significantly lower than that of competing options exchanges with similar market share. Despite proposing lower or similar fees to that of competing options exchanges with similar market share, the Exchange believes that it provides a premium network experience to its Members and non-Members via a highly deterministic System, enhanced network monitoring and customer reporting, and a superior network infrastructure than markets with higher market shares and more expensive connectivity alternatives. Each of the connectivity rates in place at competing options exchanges were filed with the Commission for immediate effectiveness and remain in place today.

The Exchange further believes that the Proposed Access Fees are reasonable, equitably allocated and not unfairly discriminatory because, for one 10Gb ULL connection, the Exchange provides each Member or non-Member access to all twelve (12) matching engines on MIAX Pearl and a vast majority choose to connect to all twelve (12) matching engines. The Exchange believes that other exchanges require firms to connect to multiple matching engines.[65]

B. Self-Regulatory Organization's Statement on Burden on Competition

The Exchange does not believe that the proposed rule change will impose any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act.

With respect to intra-market competition, the Exchange does not believe that the proposed rule change would place certain market participants at the Exchange at a relative disadvantage compared to other market participants or affect the ability of such market participants to compete. As stated above, the Exchange does not believe its proposed pricing will impose a barrier to entry to smaller participants and notes that its proposed connectivity pricing structure for its 10Gb ULL connections is associated with relative usage of the various market participants. Further, the majority of firms that purchase 10Gb ULL connections may either save money or pay the same amount after the tiered-pricing structure is implemented. While total cost may be increased for market participants with larger capacity needs or for business/technical preferences, such options provide far more capacity and are purchased by those that consume more resources from the network. Accordingly, the proposed tiered-pricing structure does not favor certain categories of market participants in a manner that would impose an undue burden on competition; rather, the allocation reflects the network resources consumed by the various usage of market participants—lowest bandwidth consuming members pay the least, and highest bandwidth consuming members pay the most, particularly since higher bandwidth consumption translates to higher costs to the Exchange.

The Exchange also does not believe that the proposed rule change will result in any burden on inter-market competition that is not necessary or appropriate in furtherance of the purposes of the Act. As discussed above, options market participants are not forced to connect to all options exchanges. The Exchange operates in a highly competitive environment, and as discussed above, its ability to price access and connectivity is constrained by competition among exchanges and third parties. There are other options markets of which market participants may connect to trade options. There is also a possible range of alternative strategies, including routing to the exchange through another participant or market center or accessing the Exchange indirectly. For example, there are 15 other U.S. options exchanges, which the Exchange must consider in its pricing discipline in order to compete for market participants. In this competitive environment, market participants are free to choose which competing exchange or reseller to use to satisfy their business needs. As a result, the Exchange believes this proposed rule change permits fair competition among national securities exchanges. Accordingly, the Exchange does not believe its proposed fee changes impose any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act.

Regrettably, the Exchange believes that the application of the Guidance to date has adversely affected inter-market competition by impeding the ability of smaller, low cost exchanges to adopt or increase fees for their market data and access services (including connectivity and port products and services). Since the adoption of the Guidance, and even more so recently, it has become harder, particularly for smaller, low cost exchanges, to adopt or increase fees to generate revenue necessary to invest in systems, provide innovative trading products and solutions, and improve competitive standing to the benefit of the affected exchanges' market participants. Although the Staff Guidance has served an important policy goal of improving disclosures and requiring exchanges to justify that their market data and access fee proposals are fair and reasonable, it has also negatively impacted exchanges, and particularly many smaller, low cost exchanges, that seek to adopt or increase fees despite providing enhanced disclosures and rationale to support their proposed fee changes.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others

As described above, the Exchange received one comment letter on the First Proposed Rule Change and four comment letters on the Second Proposed Rule Change.[66] The Exchange responded to the comment letters in the Third Proposed Rule Change and repeats its response in is filing. No comment letters were received in response to the Third Proposed Rule Change.

HMA Letter

The HMA Letter does not raise specific issues with the First or Second Proposed Rule Changes. Instead the HMA Letter is generally critical of the exchange fee filing process contained in Section 19(b)(3)(A)(ii) of the Act,[67] and Rule 19b–4(f)(2) thereunder,[68] and other exchanges' fee filings in recent years. The HMA Letter, however, applauds the

[62] *See id. See also* PHLX Rules, General 8: Connectivity.

[63] *See supra* note 58.

[64] *See* Amex Fee Schedule, Section IV.

[65] *See* Specialized Quote Interface Specification, Nasdaq PHLX, Nasdaq Options Market, Nasdaq BX Options, Version 6.5a, Section 2, Architecture (revised August 16, 2019), *available at http://www.nasdaqtrader.com/content/technicalsupport/specifications/TradingProducts/SQF6.5a-2019-Aug.pdf*. The Exchange notes that it is unclear whether the NASDAQ exchanges include connectivity to each matching engine for the single fee or charge per connection, per matching engine. *See also* NYSE Technology FAQ and Best Practices: Options, Section 5.1 (How many matching engines are used by each exchange?) (September 2020). The Exchange notes that NYSE provides a link to an Excel file detailing the number of matching engines per options exchange, with Arca and Amex having 19 and 17 matching engines, respectively.

[66] *See supra* note 9.

[67] 15 U.S.C. 78s(b)(3)(A)(ii).

[68] 17 CFR 240.19b–4.

level of disclosure the Exchange included in the First and Second Proposed Rule Changes and was supportive of the efforts made by the Exchange and its affiliates to provide transparency and justify their proposed fees. The HMA Letter specifically notes that:

''MIAX has repeatedly filed to change its connectivity fees in a way that will materially lower costs for many users, while increasing the costs for some of its heaviest of users. These filings have been withdrawn and repeatedly refiled. Each time, however, the filings contain significantly greater information about who is impacted and how than other filings that have been permitted to take effect without suspension. For example, MIAX detailed the associated projected revenues generated from the connectivity fees by user class, again in a clear attempt to comply with the SRO Fee Filing Guidance.'' [69]

As the HMA Letter notes, the Exchange refiled its same fee proposals to include significantly greater information about who is impacted and how, primarily at the request of the Commission Staff and in response to comments. The Exchange is again refiling its proposal to include more information surrounding the proposed fees and to respond to commenters.

SIG Letter 2

SIG Letter 2 argues that the Exchange, in withdrawing the First Proposed Rule Change and refiling the Second Proposed Rule Change, ''improperly circumvent[ed] the procedural protections embedded in Exchange Act Section 19(b)(3)(C), and subvert[ed] the balance of interests upheld therein.'' [70] SIG's assertion that the Exchange's entire reason for withdrawing and refiling was to subvert the protections of the Exchange Act are entirely without merit. The Exchange withdrew the First Proposed Rule Change and replaced it with the Second Proposed Rule Change in good faith to provide additional justification and explanation for the proposed fee changes and did so in compliance with the Exchange Act. The same is true in this filing, where the Exchange withdrew the Second Proposed Rule Change and submitted this filing to provide additional justification and explanation for the proposed fee changes and directly responds to certain points raised in SIG Letters 1, 2, and 3, as well as the SIFMA Letter submitted on the First and Second Proposed Rule Changes.

As SIG well knows, exchanges are able withdraw and refile various proposals (including fee changes and other rule changes) with the Commission for a multitude of reasons, not the least of which is to address feedback and comments from market participants and Commission Staff. The Exchange is well within the bounds of the Act and the rules and regulations thereunder to withdraw a proposed rule change and replace it with a new proposed rule change in good faith and to enhance the filing to ensure it complies with the requirements of the Act.

SIG Letters 1 and 3

As an initial matter, SIG Letter 1 cites Rule 700(b)(3) of the Commission's Rules of Fair Practice which places ''the burden to demonstrate that a proposed rule change is consistent with the Act on the self-regulatory organization that proposed the rule change'' and states that a ''mere assertion that the proposed rule change is consistent with those requirements . . . is not sufficient.'' [71] SIG Letter 1's assertion that the Exchange has not met this burden is without merit, especially considering the overwhelming amounts of revenue and cost information the Exchange included in the First and Second Proposed Rule Changes and this filing.

Until recently, the Exchange operated at a net annual loss since it launched operations in 2017.[72] As stated above, the Exchange believes that exchanges in setting fees of all types should meet very high standards of transparency to demonstrate why each new fee or fee increase meets the requirements of the Act that fees be reasonable, equitably allocated, not unfairly discriminatory, and not create an undue burden on competition among market participants. The Exchange believes this high standard is especially important when an exchange imposes various access fees for market participants to access an exchange's marketplace. The Exchange believes it has achieved this standard in this filing and in the First Proposed Rule Change, Second Proposed Rule Change. Similar justifications for the proposed fee change included in the First and Second Proposed Rule Changes, but also in this filing, were previously included in similar fee changes filed by the Exchange and its affiliates, MIAX Emerald and MIAX, and SIG did not submit a comment letter on those filings.[73] Those filings were not suspended by the Commission and continue to remain in effect. The justification included in each of the prior filings was the result of numerous withdrawals and re-filings of the proposals to address comments received from Commission Staff over many months. The Exchange and its affiliates have worked diligently with Commission Staff on ensuring the justification included in past fee filings fully support an assertion that those fee changes are consistent with the Act.[74] The Exchange leveraged its past work with Commission Staff to ensure the justification provided herein and in the First and Second Proposed Rule Changes include the same level of detail (or more) as the prior fee changes that survived Commission scrutiny. The Exchange's detailed disclosures in fee filings have also been applauded by one industry group which noted, ''[the Exchange's] filings contain significantly greater information about who is impacted and how than other filings

[69] *See* HMA Letter, *supra* note 9.

[70] *See* SIG Letter 2, *supra* note 9.

[71] 17 CFR 201.700(b)(3).

[72] *See supra* note 41.

[73] *See* Securities Exchange Act Release Nos. 91858 (May 12, 2021), 86 FR 26967 (May 18, 2021) (SR–PEARL–2021–23) (Notice of Filing and Immediate Effectiveness of a Proposed Rule Change to Amend the MIAX Pearl Fee Schedule to Remove the Cap on the Number of Additional Limited Service Ports Available to Market Makers); 91460 (April 2, 2021), 86 FR 18349 (April 8, 2021) (SR–EMERALD–2021–11) (Notice of Filing and Immediate Effectiveness of a Proposed Rule Change To Amend Its Fee Schedule To Adopt Port Fees, Increase Certain Network Connectivity Fees, and Increase the Number of Additional Limited Service MIAX Emerald Express Interface Ports Available to Market Makers); *and* 91857 (May 12, 2021), 86 FR 26973 (May 18, 2021) (SR–MIAX–2021–19) (Notice of Filing and Immediate Effectiveness of a Proposed Rule Change To Amend Its Fee Schedule To Remove the Cap on the Number of Additional Limited Service Ports Available to Market Makers).

[74] *See, e.g.,* Securities Exchange Act Release No. 90196 (October 15, 2020), 85 FR 67064 (October 21, 2020) (SR–EMERALD–2020–11) (Notice of Filing and Immediate Effectiveness of a Proposed Rule Change To Amend Its Fee Schedule To Adopt One-Time Membership Application Fees and Monthly Trading Permit Fees). *See* Securities Exchange Act Release Nos. 90601 (December 8, 2020), 85 FR 80864 (December 14, 2020) (SR–EMERALD–2020–18) (re-filing with more detail added in response to Commission Staff's feedback and after withdrawing SR–EMERALD–2020–11); *and* 91033 (February 1, 2021), 86 FR 8455 (February 5, 2021) (SR–EMERALD–2021–03) (re-filing with more detail added in response to Commission Staff's feedback and after withdrawing SR–EMERALD–2020–18). The Exchange initially filed a proposal to remove the cap on the number of additional Limited Service MEO Ports available to Members on April 9, 2021. *See* SR–PEARL–2021–17. On April 22, 2021, the Exchange withdrew SR–PEARL–2021–17 and refiled that proposal (without increasing the actual fee amounts) to provide further clarification regarding the Exchange's revenues, costs, and profitability any time more Limited Service MEO Ports become available, in general, (including information regarding the Exchange's methodology for determining the costs and revenues for additional Limited Service MEO Ports). *See* SR–PEARL–2021–20. On May 3, 2021, the Exchange withdrew SR–PEARL–2021–20 and refiled that proposal to further clarify its cost methodology. *See* SR–PEARL–2021–22. On May 10, 2021, the Exchange withdrew SR–PEARL–2021–22 and refiled that proposal as SR–PEARL–2021–23. *See* Securities Exchange Act Release No. 91858 (May 12, 2021), 86 FR 26967 (May 18, 2021) (SR–PEARL–2021–23).

that have been permitted to take effect without suspension.'' [75] That same commenter also noted their ''worry that the Commission's process for reviewing and evaluating exchange filings may be inconsistently applied.'' [76]

Therefore, a finding by the Commission that the Exchange has not met its burden to show that the proposed fee change is consistent with the Act would be different than the Commission's treatment of similar past filings, would create further ambiguity regarding the standards exchange fee filings should satisfy, and is not warranted here.

In addition, the arguments in SIG Letter 1 do not support their claim that the Exchange has not met its burden to show the proposed rule change is consistent with the Act. Prior to, and after submitting the First Proposed Rule Change, the Exchange solicited feedback from its Members, including SIG. SIG relayed their concerns regarding the proposed change. The Exchange then sought to work with SIG to address their concerns and gain a better understanding of the access/connectivity/quoting infrastructure of other exchanges. In response, SIG provided no substantive suggestions on how to amend the First Proposed Rule Change to address their concerns and instead chose to submit three comment letters. One could argue that SIG is using the comment letter process not to raise legitimate regulatory concerns regarding the proposal, but to inhibit or delay proposed fee changes by the Exchange.

Nonetheless, the Exchange has enhanced its cost and revenue analysis and data in this Third [sic] Proposed Rule Change to further justify that the Proposed Access Fees are reasonable in accordance with the Commission Staff's Guidance. Among other things, these enhancements include providing baseline information in the form of data from the month before the Proposed Access Fees became effective.

The Exchange now responds to SIG remaining claims below. SIG Letter 3 first summarizes its arguments made in SIG Letters 1 and 2 and incorporates those arguments by reference. The Exchange responded to the arguments in SIG Letter 2 above. SIG Letter 3 incorporates the following arguments from SIG Letter 1, which the Exchange will first respond to in turn, below:

> ''(1) The prospect that a member may withdraw from the Exchanges if a fee is too costly is not a basis for asserting that the fee is reasonable; (2) profit margin comparisons do not support the Exchanges' claims that they will not realize a supracompetitive profit, the Exchanges' respective profit margins of 30% (for MIAX and Pearl) and 51% (for Emerald) in relation to connectivity fees are high in any event, and comparisons to competing exchanges' overall operating profit margins are an inapt ''apples-to-oranges'' comparison; (3) the Exchanges provide no support for their claim that their proposed tiered pricing structure is needed to encourage efficiency in connectivity usage; (4) the Exchanges provided no support for their claim that the tiered pricing structure allows them to better monitor connectivity usage, nor that this is an appropriate basis for the pricing structure in any event; (5) the Exchanges' claim that firms who purchase more 10Gb ULL lines generate ''higher'' costs is misleading, and they offered no support for this claim in any event; (6) no other exchange has tiered connectivity pricing; (7) the recoupment of investment for exchange infrastructure has no supporting nexus with the claim that the proposed fees are reasonable, equitably allocated, and not unfairly discriminatory; and (8) the recoupment of investment claim belies the Exchanges' claim of encouraging efficiency in connectivity usage.'' [77]

The Exchange's Examples of Members Terminating Their Exchange Access Shows That Members Have Choice Whether To Connect to an Exchange Based on Fees

SIG asserts that ''the prospect that a member may withdraw from the Exchanges if a fee is too costly is not a basis for asserting that the fee is reasonable.'' [78] SIG misinterprets the Exchange's argument here. The Exchange provided the examples of firms terminating access to certain markets due to fees to support its assertion that firms, including market makers, are not required to connect to all markets and may drop access if fees become too costly for their business models and alternative or substitute forms of connectivity are available to those firms who choose to terminate access. The Commission Staff Guidance also provides that ''[a] statement that substitute products or services are available to market participants in the relevant market (*e.g.,* equities or options) can demonstrate competitive forces if supported by evidence that substitute products or services exist.'' [79] Nonetheless, the Third [sic] Proposed Rule Change no longer makes this assertion as a basis for the proposed fee change and, therefore, the Exchange believes it is not necessary to respond to this portion of SIG Letters 1 and 3.

The Proposed Fees Will Not Result in Excessive Pricing or Supra-Competitive Profit

Next, SIG asserts that the Exchange's ''profit margin comparisons do not support the Exchange's claims that they will not realize a supracompetitive profit,'' that ''the Exchanges' respective profit margins of 30% (for MIAX and Pearl) and 51% (for Emerald) in relation to connectivity fees are high in any event,'' and ''comparisons to competing exchanges' overall operating profit margins are an inapt 'apples-to-oranges' comparison.''

The Exchange has provided ample data that the proposed fees would not result in excessive pricing or a supra-competitive profit. In this Third [sic] Proposed Rule Change, the Exchange no longer utilizes a comparison of its profit margin to that of other options exchanges as a basis that the Proposed Access Fees are reasonable. Rather, the Exchange has enhanced its cost and revenue analysis and data in this Third [sic] Proposed Rule Change to further justify that the Proposed Access Fees are reasonable in accordance with the Commission Staff's Guidance. Therefore, the Exchange believes it is no longer necessary to respond to this portion of SIG Letters 1 and 3.

The Proposed Tiered Pricing Structure Is Not Unfairly Discriminatory

SIG challenges the proposed fees by arguing that ''the Exchange[ ] provide[s] no support for [its] claim that [the] proposed tiered pricing structure is needed to encourage efficiency in connectivity usage and the Exchange[ ] provided no support for [the] claim that the tiered pricing structure allows them to better monitor connectivity usage, nor that this is an appropriate basis for the pricing structure in any event.'' The Exchange provided additional justification to support that the Proposed Access Fees are equitable and not unfairly discriminatory above in response to SIG's assertions.

Firms That Purchase More 10Gb ULL Generate Higher Exchange Costs

SIG argues that ''the Exchanges' claim that firms who purchase more 10Gb ULL lines generate 'higher' costs is misleading,'' and that the Exchange has ''offered no support for this claim in any event.'' As described above, the Exchange sought to design the proposed tiered-pricing structure to set the amount of the fees to relate to the number of connections a firm purchases and the Exchange believes it provided

[75] *See* HMA Letter, *supra* note 9.

[76] *Id.* (providing examples where non-transaction fee filings by other exchanges have been permitted to remain effective and not suspended by the Commission despite less disclosure and justification).

[77] *See* SIG Letter 3, *supra* note 9.

[78] *Id.*

[79] *See* Guidance, *supra* note 23.

ample justification for the proposed tiered-pricing structure in the First and Second Proposed Rule Changes. Nonetheless, the Exchange provides additional justification to support that the Proposed Access Fees are equitable and not unfairly discriminatory above in response to SIG's assertions.

The Proposed Tiered-Pricing Structure for 10Gb ULL Connectivity Will Provide Cost Savings for the Majority of Exchange Members

The SIG Letter incorrectly asserts that no other exchange has tiered connectivity pricing. Numerous other exchanges provide tiered fee structures for various other types of access to their platforms, including trading permits and ports.[80] The Exchange provided adequate evidence that most firms would incur cost savings under the Proposed Access Fees in the First and Second Proposed Rule Changes and this filing. Nonetheless, the Exchange believes it provided additional justification to support that the Proposed Access Fees are equitable and not unfairly discriminatory above in response to SIG's assertions.

Recoupment of Exchange Infrastructure Costs

Nowhere in this proposal or in the First Proposed Rule Change did the Exchange assert that it benefits competition to allow a new exchange entrant to recoup their infrastructure costs. Rather, the Exchange asserts above that its ''proposed fees are reasonable, equitably allocated and not unfairly discriminatory because the Exchange, and its affiliates, are still recouping the initial expenditures from building out their systems while the legacy exchanges have already paid for and built their systems.'' The Exchange no longer makes this assertion in this filing and, therefore, does not believe is it necessary to respond to SIG's assertion here.

[80] *See* Cboe Exchange, Inc. Fee Schedule, Logical Connectivity Fees ($750 per port per month for the first 5 BOE/FIX Logical Ports and $800 per port per month for each port over 5; $1,500 per port per month for the first 5 BOE Bulk Logical Ports, $2,500 per port per month for ports 6–30, and $3,000 per port per month for each port over 30); Cboe BXZ Exchange, Inc. Options Fee Schedule, Options Logical Port Fees, Ports with Bulk Quoting Capabilities ($1,500 per port per month for the first and second ports, $2,500 per port per month for three or more); Nasdaq Stock Market LLC, Options 7, Pricing Schedule, Section 3 ($1,500 per port per month for the first 5 SQF ports; $1,000 per port per month for SQF ports 15–20; and $500 per port per month for all SQF ports over 21); NYSE American Options Fee Schedule, Section V.A., Port Fees and NYSE Arca Options Fee Schedule, Port Fees (both charging $450 per port for order/quote entry ports 1–40 and $150 per port for ports 41 and greater).

SIFMA Letter

In sum, the SIFMA Letter asserts that the Exchange has failed to demonstrate that the Proposed Access Fees are reasonable for three reasons:

(i) ''The Exchanges' ''platform competition'' argument that competition for order flow constrains pricing for market data or other products and services exclusively offered by an exchange does not demonstrate that the fees are reasonable.''

(ii) ''. . . order flow competition alone between exchanges does not demonstrate that the fees for the products and services subject to the Proposal are reasonable.''

(iii) ''the Exchanges' argument that the products and services subject to the Proposals are optional does not reflect marketplace reality, nor does it demonstrate that the proposed fees are reasonable.''

The Exchange responds to each of SIFMA's challenges in turn below.

The Exchange Never Set Forth a ''Platform Competition'' Argument

The SIFMA Letter asserts that the Exchange's ''platform competition'' argument that competition for order flow constrains pricing for market data or other products and services exclusively offered by an exchange does not demonstrate that the fees are reasonable.'' [81] The Exchange does not believe it is necessary to respond to this assertion because it has never set forth a ''platform competition'' [82] argument to justify the Proposed Access Fees in the First or Second Proposed Rule Change nor does it do so in this filing.

The Exchange Is Not Arguing That Order Flow Competition Alone Demonstrates That the Proposed Fees Are Reasonable

The SIFMA Letter asserts that ''order flow competition alone between exchanges does not demonstrate that the fees for the products and services subject to the Proposal are reasonable.'' [83] The Exchange never directly asserted in the First or Second Proposed Rule Changes, nor does it do so in this filing, that order flow competition, alone, demonstrated that the Proposed Access Fees are reasonable and has removed any language that could imply this argument from this filing.

[81] *See* SIFMA Letter, *supra* note 9.

[82] Pursuant to the Guidance, ''platform theory generally asserts that when a business offers facilities that bring together two or more distinct types of customers, it is the overall return of the platform, rather than the return of any particular fees charged to a type of customer, that should be used to assess the competitiveness of the platform's market.'' *See* Guidance, *supra* note 23.

[83] *See* SIFMA Letter, *supra* note 9.

Other SIFMA Assertions

SIFMA also challenges or asserts: (i) The substitutability or optionality of 10Gb ULL connections, (ii) whether the Exchange has shown that the fees are equitable and non-discriminatory; (iii) that a tiered pricing structure will impose higher cost on all market participants; (iv) that a tiered pricing structure will encourage market participants to be more economical with the usage; (v) greater number of connections use greater Exchange resources; and (vi) that the Exchange has not provided extensive information regarding its cost data and how it determined it cost analysis. The Exchange believes that these assertions by SIFMA basically echo assertions made in SIG Letters 1 and 3 and that it provided a response to these assertions under its response to SIG above or in provided enhanced transparency and justification in this filing.

III. Suspension of the Proposed Rule Change

Pursuant to Section 19(b)(3)(C) of the Act,[84] at any time within 60 days of the date of filing of a proposed rule change pursuant to Section 19(b)(1) of the Act,[85] the Commission summarily may temporarily suspend the change in the rules of a self-regulatory organization (''SRO'') if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act. As discussed below, the Commission believes a temporary suspension of the proposed rule change is necessary and appropriate to allow for additional analysis of the proposed rule change's consistency with the Act and the rules thereunder.

As the Exchange further details above, the Exchange first filed a proposed rule change proposing fee changes as proposed herein on July 30, 2021, with the proposed fee changes effective beginning August 1, 2021. That proposal, SR–PEARL–2021–36, was published for comment in the **Federal Register** on August 17, 2021.[86] On September 24, 2021 the Exchange withdrew SR–PEARL–2021–36 and filed a proposed rule change proposing fee changes as proposed herein. That proposal, SR–PEARL–2021–45, was

[84] 15 U.S.C. 78s(b)(3)(C).

[85] 15 U.S.C. 78s(b)(1).

[86] *See* Securities Exchange Act Release No. 92644 (August 11, 2021), 86 FR 46055 (August 17, 2021) (SR–PEARL–2021–36). The Commission received one comment letter on that proposal. Comment for SR–PEARL–2021–36 can be found at: *https://www.sec.gov/comments/sr-pearl-2021-36/srpearl202136.htm.*

published for comment in the **Federal Register** on October 4, 2021.[87] The Commission received four comment letters from three separate commenters on SR–PEARL–2021–45.[88] On November 22, 2021, pursuant to Section 19(b)(3)(C) of the Act, the Commission: (1) Temporarily suspended the proposed rule change; and (2) instituted proceedings to determine whether to approve or disapprove the proposed rule change.[89] On December 1, 2021, the Exchange withdrew SR–PEARL–2021–45 and filed a proposed rule change proposing fee changes as proposed herein. That filing, SR–PEARL–2021–57,[90] was published for comment in the **Federal Register** on December 20, 2021.[91] On January 27, 2022, pursuant to Section 19(b)(3)(C) of the Act, the Commission: (1) Temporarily suspended the proposed rule change (SR–PEARL–2021–57) and (2) instituted proceedings to determine whether to approve or disapprove the proposal.[92] On February 1, 2022, the Exchange withdrew SR–PEARL–2021–57 and filed the instant filing, which is substantially similar.

When exchanges file their proposed rule changes with the Commission, including fee filings like the Exchange's present proposal, they are required to provide a statement supporting the proposal's basis under the Act and the rules and regulations thereunder applicable to the exchange.[93] The instructions to Form 19b–4, on which exchanges file their proposed rule changes, specify that such statement ''should be sufficiently detailed and specific to support a finding that the proposed rule change is consistent with [those] requirements.'' [94]

Among other things, exchange proposed rule changes are subject to Section 6 of the Act, including Sections 6(b)(4), (5), and (8), which requires the rules of an exchange to: (1) Provide for the equitable allocation of reasonable fees among members, issuers, and other persons using the exchange's facilities; [95] (2) perfect the mechanism of a free and open market and a national market system, protect investors and the public interest, and not be designed to permit unfair discrimination between customers, issuers, brokers, or dealers; [96] and (3) not impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act.[97]

In temporarily suspending the Exchange's fee change, the Commission intends to further consider whether the proposal to modify fees for certain connectivity options and implement a tiered pricing fee structure is consistent with the statutory requirements applicable to a national securities exchange under the Act. In particular, the Commission will consider whether the proposed rule change satisfies the standards under the Act and the rules thereunder requiring, among other things, that an exchange's rules provide for the equitable allocation of reasonable fees among members, issuers, and other persons using its facilities; not permit unfair discrimination between customers, issuers, brokers or dealers; and do not impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act.[98]

Therefore, the Commission finds that it is appropriate in the public interest, for the protection of investors, and otherwise in furtherance of the purposes of the Act, to temporarily suspend the proposed rule change.[99]

IV. Proceedings To Determine Whether To Approve or Disapprove the Proposed Rule Change

The Commission is instituting proceedings pursuant to Sections 19(b)(3)(C) [100] and 19(b)(2)(B) [101] of the Act to determine whether the Exchange's proposed rule change should be approved or disapproved. Institution of such proceedings is appropriate at this time in view of the legal and policy issues raised by the proposed rule change. Institution of proceedings does not indicate that the Commission has reached any conclusions with respect to any of the issues involved. Rather, as described below, the Commission seeks and encourages interested persons to provide comments on the proposed rule change to inform the Commission's analysis of whether to approve or disapprove the proposed rule change.

Pursuant to Section 19(b)(2)(B) of the Act,[102] the Commission is providing notice of the grounds for possible disapproval under consideration. The Commission is instituting proceedings to allow for additional analysis of whether the Exchange has sufficiently demonstrated how the proposed rule change is consistent with Sections 6(b)(4),[103] 6(b)(5),[104] and 6(b)(8) [105] of the Act. Section 6(b)(4) of the Act requires that the rules of a national securities exchange provide for the equitable allocation of reasonable dues, fees, and other charges among its members and issuers and other persons using its facilities. Section 6(b)(5) of the Act requires that the rules of a national securities exchange be designed, among other things, to promote just and equitable principles of trade, to remove impediments to and perfect the mechanism of a free and open market and a national market system and, in general, to protect investors and the public interest, and not be designed to permit unfair discrimination between customers, issuers, brokers, or dealers. Section 6(b)(8) of the Act requires that the rules of a national securities exchange not impose any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act.

The Commission asks that commenters address the sufficiency of the Exchange's statements in support of the proposal, in addition to any other comments they may wish to submit about the proposed rule change. In particular, the Commission seeks comment on the following aspects of the proposal and asks commenters to submit data where appropriate to support their views:

[87] *See* Securities Exchange Act Release No. 93162 (September 28, 2021), 86 FR 54739 (October 4, 2021) (SR–PEARL–2021–45).

[88] Comment on SR–PEARL–2021–45 can be found at: *https://www.sec.gov/comments/sr-pearl-2021-45/srpearl202145.htm.*

[89] *See* Securities Exchange Act Release No. 93639 (November 22, 2021), 86 FR 67758 (November 29, 2021).

[90] *See* text accompanying *supra* note 12.

[91] *See* Securities Exchange Act Release No. 93774 (December 14, 2021), 86 FR 71952 (December 20, 2021).

[92] *See* Securities Exchange Act Release No. 94088 (January 27, 2022), 87 FR 5901 (February 2, 2022).

[93] *See* 17 CFR 240.19b–4 (Item 3 entitled ''Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change'').

[94] *Id.*

[95] 15 U.S.C. 78f(b)(4).

[96] 15 U.S.C. 78f(b)(5).

[97] 15 U.S.C. 78f(b)(8).

[98] *See* 15 U.S.C. 78f(b)(4), (5), and (8), respectively.

[99] For purposes of temporarily suspending the proposed rule change, the Commission has considered the proposed rule's impact on efficiency, competition, and capital formation. *See* 15 U.S.C. 78c(f).

[100] 15 U.S.C. 78s(b)(3)(C). Once the Commission temporarily suspends a proposed rule change, Section 19(b)(3)(C) of the Act requires that the Commission institute proceedings under Section 19(b)(2)(B) to determine whether a proposed rule change should be approved or disapproved.

[101] 15 U.S.C. 78s(b)(2)(B).

[102] 15 U.S.C. 78s(b)(2)(B). Section 19(b)(2)(B) of the Act also provides that proceedings to determine whether to disapprove a proposed rule change must be concluded within 180 days of the date of publication of notice of the filing of the proposed rule change. *See id.* The time for conclusion of the proceedings may be extended for up to 60 days if the Commission finds good cause for such extension and publishes its reasons for so finding, or if the exchange consents to the longer period. *See id.*

[103] 15 U.S.C. 78f(b)(4).

[104] 15 U.S.C. 78f(b)(5).

[105] 15 U.S.C. 78f(b)(8).

1. *Cost Estimates and Allocation.* The Exchange states that it is not asserting that the Proposed Access Fees are constrained by competitive forces, but rather set forth a ''cost-plus model,'' employing a ''conservative methodology'' that ''strictly considers only those costs that are most clearly directly related to the provision and maintenance of 10Gb ULL connectivity to estimate such costs.'' [106] Setting forth its costs in providing 10Gb ULL connectivity, and as summarized in greater detail above, the Exchange projects $15.9 million in aggregate (between the Exchange and MIAX) annual estimated costs for 2021 as the sum of: (1) $3.9 million in third-party expenses paid in total to Equinix (62% of the total applicable expense) for data center services; Zayo Group Holdings, for network services (62% of the total applicable expense); SFTI for connectivity support, Thompson Reuters, NYSE, Nasdaq, and Internap and others (75% of the total applicable expense) for content, connectivity services, and infrastructure services; and various other hardware and software providers (51% of the total applicable expense) supporting the production environment, and (2) $12 million in internal expenses, allocated to (a) employee compensation and benefit costs ($6.1 million, approximately 28% of the Exchange's and MIAX's total applicable employee compensation and benefits expense); (b) depreciation and amortization ($5.3 million, approximately 70% of the Exchange's and MIAX's total applicable depreciation and amortization expense); and (c) occupancy costs ($0.6 million, approximately 53% of the Exchange's and MIAX's total applicable occupancy expense). Do commenters believe that the Exchange has provided sufficient detail about how it determined which costs are most clearly directly associated with providing and maintaining 10Gb ULL connectivity? The Exchange describes a ''proprietary'' process involving all Exchange department heads, including the finance department and numerous meetings between the Exchange's Chief Information Officer, Chief Financial Officer, Head of Strategic Planning and Operations, Chief Technology Officer, various members of the Legal Department, and other group leaders, but do not specify further what principles were applied in making these determinations or arriving at particular allocations. Do commenters believe further explanation is necessary? For employee compensation and benefit costs, for example, the Exchange calculated an allocation of employee time in several departments, including Technology, Back Office, Systems Operations, Networking, Business Strategy Development, Trade Operations, Finance, and Legal, but do not provide the job titles and salaries of persons whose time was accounted for, or explain the methodology used to determine how much of an employee's time is devoted to that specific activity. What are commenters' views on whether the Exchange has provided sufficient detail on the identity and nature of services provided by third parties? Across all of the Exchange's projected costs, what are commenters' views on whether the Exchange has provided sufficient detail on the elements that go into connectivity costs, including how shared costs are allocated and attributed to connectivity expenses, to permit an independent review and assessment of the reasonableness of purported cost-based fees and the corresponding profit margin thereon? Should the Exchange be required to identify for what services or fees the remaining percentage of un-allocated expenses are attributable to (*e.g.,* what services or fees are associated with the 30% of applicable depreciation and amortization expenses the Exchange does not allocate to the Proposed Access Fees)? Do commenters believe that the costs projected for 2021 are generally representative of expected costs going forward (to the extent commenters consider 2021 to be a typical or atypical year), or should an exchange present an estimated range of costs with an explanation of how profit margins could vary along the range of estimated costs? Should the Exchange use cost projections or actual costs estimated for 2021 in a filing made in 2022, or make cost projections for 2022?

2. *Revenue Estimates and Profit Margin Range.* The Exchange provides a single monthly revenue figure as the basis for calculating the profit margin of 21.3%. Do commenters believe this is reasonable? If not, why not? The Exchange states that their proposed fee structure is ''designed to cover its costs with a limited return in excess of such costs,'' and that ''revenue and associated profit margin [ ] are not solely intended to cover the costs associated with providing access services subject to the Proposed Access Fees,'' and believes that a 21.3% margin is a limited return over such costs.[107] The profit margin is also dependent on the accuracy of the cost projections which, if inflated (intentionally or unintentionally), may render the projected profit margin meaningless. The Exchange acknowledges that this margin may fluctuate from month to month due to changes in the number of connections purchased, and that costs may increase. They also state that the number of connections has not materially changed over the prior months and so the months that the Exchange has used as a baseline to perform its assessment are representative of reasonably anticipated costs and expenses.[108] The Exchange does not account for the possibility of cost decreases, however. What are commenters' views on the extent to which actual costs (or revenues) deviate from projected costs (or revenues)? Do commenters believe that the Exchange's methodology for estimating the profit margin is reasonable? Should the Exchange provide a range of profit margins that they believe are reasonably possible, and the reasons therefor?

3. *Reasonable Rate of Return.* Do commenters agree with the Exchange that its expected 21.3% profit margin would constitute a reasonable rate of return over cost for 10GB ULL connectivity? If not, what would commenters consider to be a reasonable rate of return and/or what methodology would they consider to be appropriate for determining a reasonable rate of return? What are commenters' views regarding what factors should be considered in determining what constitutes a reasonable rate of return for 10Gb ULL connectivity fees? Do commenters believe it relevant to an assessment of reasonableness that the Exchange's proposed fees for 10Gb ULL connections, even at the highest tier, are lower than those of other options exchanges to which the Exchange has compared the Proposed Access Fees? Should an assessment of reasonable rate of return include consideration of factors other than costs; and if so, what factors should be considered, and why?

4. *Periodic Reevaluation.* The Exchange has addressed whether it believes a material deviation from the anticipated profit margin would warrant the need to make a rule filing pursuant to Section 19(b) of the Act to increase or decrease the fees accordingly, stating that ''[a]ny requirement that an exchange should conduct a periodic re-evaluation on a set timeline of its cost justification and amend its fees accordingly should be established by the Commission holistically, applied to all exchanges and not just through pending fee proposals, such as this filing,'' and that ''[i]n order to be fairly applied, such a mandate should be applied to existing access fees as well.'' [109] In light of the impact that the number of subscribers has on connectivity profit margins, and the potential for costs to decrease (or increase) over time, what are commenters' views on the need for exchanges to commit to reevaluate, on an ongoing and periodic basis, their cost-based connectivity fees to ensure that they stay in line with their stated profitability target and do not become unreasonable over time, for example, by failing to adjust for efficiency gains, cost increases or decreases, and changes in subscribers? How formal should that process be, how often should that reevaluation occur, and what metrics and thresholds should be considered? How soon after a new connectivity fee change is implemented should an exchange assess whether its subscriber estimates were accurate and at what threshold should an exchange commit to file a fee change if its estimates were inaccurate? Should an initial review take place within the first 30 days after a connectivity fee is implemented? 60 days? 90 days? Some other period?

5. *Tiered Structure for 10Gb ULL Connections.* The Exchange states that the proposed tiered fee structure is designed to decrease the monthly fees for those firms that connect to the Exchange as part of their best execution obligations and generally tend to send the least amount of orders and messages over those connections, because such firms generally only purchase a limited number of connections, and also ''generally send fewer orders and messages over those connections, resulting in less strain on Exchange resources.'' [110] According to the Exchange, 80% of firms have not experienced a fee increase as a result of the tiered structure.

[106] *See supra* Section II.A.2.

[107] *See supra* Section II.A.2.

[108] *See id.*

[109] *See supra* Section II.A.2.

[110] *See id.*

However, firms that purchase five or more connections will see a 30% increase in their fees for each connection above the fourth. Regarding these firms, the Exchange has not asserted that it is 30% more costly for the Exchange to offer such connections to these firms, but instead argues generally that these firms are ''likely'' to result in greater expenditure of Exchange resources and increased cost to the Exchange and that as the number of connections an entity has increases, certain other costs incurred by the Exchange that are correlated to, though not directly affected by, connection costs (*e.g.,* storage costs, surveillance costs, service expenses) also increase.[111] Do commenters believe that the price differences between the tiers are supported by the Exchange's assertions that it set the level of its proposed fees in a manner that it is equitable and not unfairly discriminatory? Do commenters believes the Exchange should demonstrate how the proposed tiered fee levels correlate with tiered costs (*e.g.,* by providing cost information broken down by tier, messaging and order volumes through the additional 10Gb ULL connections by tier, and/or mid-month add/drop of connection rates by tier)? Do commenters believe that the Exchange should provide more detail about the costs that firms purchasing three or more or five or more 10Gb ULL connections impose on the Exchange, to permit an assessment of the Exchange's statement that the Proposed Access Fees ''do not depend on any distinction between Members and non-Members because they are solely determined by the individual Members' or non-Members' business needs and its impact on Exchange resources?'' [112]

Under the Commission's Rules of Practice, the ''burden to demonstrate that a proposed rule change is consistent with the Exchange Act and the rules and regulations issued thereunder . . . is on the [SRO] that proposed the rule change.'' [113] The description of a proposed rule change, its purpose and operation, its effect, and a legal analysis of its consistency with applicable requirements must all be sufficiently detailed and specific to support an affirmative Commission finding,[114] and any failure of an SRO to provide this information may result in the Commission not having a sufficient basis to make an affirmative finding that a proposed rule change is consistent with the Act and the applicable rules and regulations.[115] Moreover, ''unquestioning reliance'' on an SRO's representations in a proposed rule change would not be sufficient to justify Commission approval of a proposed rule change.[116]

The Commission believes it is appropriate to institute proceedings to allow for additional consideration and comment on the issues raised herein, including as to whether the proposal is consistent with the Act, any potential comments or supplemental information provided by the Exchange, and any additional independent analysis by the Commission.

V. Commission's Solicitation of Comments

The Commission requests written views, data, and arguments with respect to the concerns identified above as well as any other relevant concerns. In particular, the Commission invites the written views of interested persons concerning whether the proposal is consistent with Sections 6(b)(4), 6(b)(5), and 6(b)(8), or any other provision of the Act, or the rules and regulations thereunder. The Commission asks that commenters address the sufficiency and merit of the Exchange's statements in support of the proposal, in addition to any other comments they may wish to submit about the proposed rule change. Although there do not appear to be any issues relevant to approval or disapproval that would be facilitated by an oral presentation of views, data, and arguments, the Commission will consider, pursuant to Rule 19b–4, any request for an opportunity to make an oral presentation.[117]

Interested persons are invited to submit written data, views, and arguments regarding whether the proposal should be approved or disapproved by March 15, 2022. Any person who wishes to file a rebuttal to any other person's submission must file that rebuttal by March 29, 2022.

Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's internet comment form (*http://www.sec.gov/rules/sro.shtml*); or
- Send an email to *rule-comments@sec.gov.* Please include File No. SR–PEARL–2022–03 on the subject line.

Paper Comments

- Send paper comments in triplicate to Secretary, Securities and Exchange Commission, 100 F Street NE, Washington, DC 20549–1090.

All submissions should refer to File Number SR–PEARL–2022–03. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's internet website (*http://www.sec.gov/rules/sro.shtml*). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street NE, Washington, DC 20549, on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change. Persons submitting comments are cautioned that we do not redact or edit personal identifying information from comment submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR–PEARL–2022–03 and should be submitted on or before March 15, 2022. Rebuttal comments should be submitted by March 29, 2022.

VI. Conclusion

It is therefore ordered, pursuant to Section 19(b)(3)(C) of the Act,[118] that File Numbers SR–PEARL–2022–03 be, and hereby is, temporarily suspended. In addition, the Commission is instituting proceedings to determine whether the proposed rule change should be approved or disapproved.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[119]

J. Matthew DeLesDernier,

Assistant Secretary.

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BILLING CODE 8011–01–P

[111] *See id.*

[112] *See id.*

[113] 17 CFR 201.700(b)(3).

[114] *See id.*

[115] *See id.*

[116] *See Susquehanna Int'l Group, LLP* v. *Securities and Exchange Commission,* 866 F.3d 442, 446–47 (D.C. Cir. 2017) (rejecting the Commission's reliance on an SRO's own determinations without sufficient evidence of the basis for such determinations).

[117] 15 U.S.C. 78s(b)(2). Section 19(b)(2) of the Act grants the Commission flexibility to determine what type of proceeding—either oral or notice and opportunity for written comments—is appropriate for consideration of a particular proposal by an SRO. *See* Securities Acts Amendments of 1975, Report of the Senate Committee on Banking, Housing and Urban Affairs to Accompany S. 249, S. Rep. No. 75, 94th Cong., 1st Sess. 30 (1975).

[118] 15 U.S.C. 78s(b)(3)(C).

[119] 17 CFR 200.30–3(a)(12), (57) and (58).

SECURITIES AND EXCHANGE COMMISSION

[Investment Company Act Release No. 34505; File No. 812–15243]

Alpha Architect ETF Trust and Empowered Funds, LLC

AGENCY: Securities and Exchange Commission (''Commission'' or ''SEC'').

ACTION: Notice.

Notice of an application under section 6(c) of the Investment Company Act of 1940 (''Act'') for an exemption from section 15(a) of the Act. The requested exemption would permit an investment adviser to hire and replace certain subadvisers without shareholder approval.

APPLICANTS: Alpha Architect ETF Trust (the ''Trust''), a Delaware statutory trust registered under the Act as an open-end management investment company, and Empowered Funds, LLC, Pennsylvania limited liability company registered as an investment adviser under the Investment Advisers Act of 1940 (the ''Adviser'' or ''Empowered'' and, collectively with the Trust, the ''Applicants'').

FILING DATES: The application was filed on June 28, 2021 and amended on December 17, 2021.

HEARING OR NOTIFICATION OF HEARING: An order granting the requested relief will be issued unless the Commission orders a hearing. Interested persons may request a hearing on any application by emailing the Commission's Secretary at *Secretarys-Office@sec.gov* and serving the Applicants with a copy of the request by email, if an email address is listed for the relevant Applicant below, or personally or by mail, if a physical address is listed for the relevant Applicant below. Hearing requests should be received by the Commission by 5:30 p.m. on March 14, 2022, and should be accompanied by proof of service on the Applicants, in the form of an affidavit, or, for lawyers, a certificate of service. Pursuant to rule 0–5 under the Act, hearing requests should state the nature of the writer's interest, any facts bearing upon the desirability of a hearing on the matter, the reason for the request, and the issues contested. Persons who wish to be notified of a hearing may request notification by emailing the Commission's Secretary.

ADDRESSES: The Commission: *Secretarys-Office@sec.gov.* Applicants: Michael Pellegrino, Esq. at *mp@pell-law.com.*

FOR FURTHER INFORMATION CONTACT: Jill Ehrlich, Senior Counsel, or Lisa Reid Ragen, Branch Chief, at (202) 551–6825 (Division of Investment Management, Chief Counsel's Office).

SUPPLEMENTARY INFORMATION: For Applicants' representations, legal analysis, and conditions, please refer to Applicants' amended and restated application, dated December 17, 2021, which may be obtained via the Commission's website by searching for the file number at the top of this document, or for an Applicant using the Company name search field, on the SEC's EDGAR system. The SEC's EDGAR system may be searched at *https://www.sec.gov/edgar/searchedgar/legacy/companysearch.html.* You may also call the SEC's Public Reference Room at (202) 551–8090.

Summary of the Application

1. The Adviser serves as the investment adviser to the Funds pursuant to investment advisory agreements with the Trust on behalf of each Fund (collectively, the ''Advisory Agreements'').[1] The Adviser is responsible for the overall management of the Funds' business affairs and selecting investments according to the Funds' investment objectives, policies, and restrictions, subject to the authority of the board of trustees of the Trust (''Board''). The Advisory Agreements permit the Adviser, subject to the approval of the Board, to delegate to one or more unaffiliated subadvisers (each, a ''Subadviser'' and collectively, the ''Subadvisers'') the responsibility to provide the day-to-day portfolio investment management of each Fund, subject to the supervision and direction of the Adviser. The primary responsibility for managing the Funds will remain vested in the Adviser. The Adviser will hire, evaluate, allocate assets to and oversee the Subadvisers, including determining whether a Subadviser should be terminated, at all times subject to the authority of the Board.

2. Applicants request an exemption to permit the Adviser, subject to Board approval, to hire certain Subadvisers pursuant to subadvisory agreements (''Subadvisory Agreements'') and materially amend existing Subadvisory Agreements without obtaining the shareholder approval required under section 15(a) of the Act.[2]

3. Applicants agree that any order granting the requested relief will be subject to the terms and conditions stated in the application. Such terms and conditions provide for, among other safeguards, appropriate disclosure to Fund shareholders and notification about subadvisory changes and enhanced Board oversight to protect the interests of the Funds' shareholders.

4. Section 6(c) of the Act provides that the Commission may exempt any person, security, or transaction or any class or classes of persons, securities, or transactions from any provisions of the Act, or any rule thereunder, if such relief is necessary or appropriate in the public interest and consistent with the protection of investors and purposes fairly intended by the policy and provisions of the Act. Applicants believe that the requested relief meets this standard because, as further explained in the application, the Advisory Agreements will remain subject to shareholder approval, while the role of the Subadvisers is substantially similar to that of individual portfolio managers, so that requiring shareholder approval of Subadvisory Agreements would impose unnecessary delays and expenses on the Funds.

For the Commission, by the Division of Investment Management, under delegated authority.

Dated: February 15, 2022.

J. Matthew DeLesDernier,

Assistant Secretary.

[FR Doc. 2022–03644 Filed 2–18–22; 8:45 am]

BILLING CODE 8011–01–P

[1] Applicants request relief with respect to any existing or future series of the Trust and any other existing or future registered open-end management investment company or series thereof that: (a) Is advised by Empowered, or any entity controlling, controlled by or under common control with Empowered or its successors (each, also an ''Adviser''); (b) uses the manager-of-managers structure described in the application; and (c) complies with the terms and conditions of the application (any such series, a ''Fund'' and collectively, the ''Funds''). For purposes of the requested order, ''successor'' is limited to an entity that results from a reorganization into another jurisdiction or a change in the type of business organization.

[2] The requested relief will not extend to any subadviser that is an affiliated person, as defined in section 2(a)(3) of the Act, of the Trust, a Fund or the Adviser, other than by reason of serving as a subadviser to one or more of the Funds.

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–94257; File No. SR–EMERALD–2022–04]

Self-Regulatory Organizations; MIAX Emerald LLC; Notice of Filing of a Proposed Rule Change To Amend the MIAX Emerald Fee Schedule To Adopt a Tiered-Pricing Structure for Certain Connectivity Fees; Suspension of and Order Instituting Proceedings To Determine Whether To Approve or Disapprove the Proposed Rule Change

February 15, 2022.

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (''Act''),[1] and Rule 19b–4 thereunder,[2] notice is hereby given that on February 1, 2022, MIAX Emerald, LLC (''MIAX Emerald'' or ''Exchange'') filed with the Securities and Exchange Commission (''Commission'') a proposed rule change as described in Items I and II below, which Items have been prepared by the Exchange. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons and is, pursuant to Section 19(b)(3)(C) of the Act, hereby: (i) Temporarily suspending the rule change; and (ii) instituting proceedings to determine whether to approve or disapprove the proposed rule change.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

The Exchange is filing a proposal to amend the MIAX Emerald Fee Schedule (the ''Fee Schedule'') to amend certain connectivity fees.

The text of the proposed rule change is available on the Exchange's website at *http://www.miaxoptions.com/rule-filings,* at MIAX's principal office, and at the Commission's Public Reference Room.

II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the Exchange included statements concerning the purpose of and basis for the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in Item IV [sic] below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of such statements.

[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

The Exchange proposes to amend the Fee Schedule to adopt a tiered-pricing structure for the 10 gigabit (''Gb'') ultra-low latency (''ULL'') fiber connection available to Members [3] and non-Members. The Exchange initially filed this proposal on July 30, 2021, with the proposed fee changes effective beginning August 1, 2021 (''First Proposed Rule Change'').[4] The First Proposed Rule Change was published for comment in the **Federal Register** on August 17, 2021.[5] The Commission received one comment letter on the First Proposed Rule Change.[6] The Exchange withdrew the First Proposed Rule Change on September 24, 2021 and re-submitted the proposal on September 24, 2021, with the proposed fee changes being immediately effective (''Second Proposed Rule Change'').[7] The Second Proposed Rule Change was published for comment in the **Federal Register** on October 4, 2021.[8] The Second Proposed Rule Change provided additional justification for the proposed fee changes and addressed certain points raised in the single comment letter that was submitted on the First Proposed Rule Change. The Commission received four comment letters from three separate commenters on the Second Proposed Rule Change.[9] The Commission suspended the Second Proposed Rule Change on November 22, 2021.[10] The Exchange withdrew the Second Proposed Rule Change on December 1, 2021 and submitted a revised proposal for immediate effectiveness (''Third Proposed Rule Change'').[11] The Third Proposed Rule Change meaningfully attempted to address issues or questions that have been raised by providing additional justification and explanation for the proposed fee changes and directly respond to the points raised in SIG Letters 1, 2, and 3, as well as the SIFMA Letter submitted on the First and Second Proposed Rule Changes,[12] and feedback provided by Commission Staff during a telephone conversation on November 18, 2021 relating to the Second Proposed Rule Change. The Third Proposed Rule Change was published for comment in the **Federal Register** on December 20, 2021.[13] The Exchange receive no comment letters on the Third Proposed Rule Change. The Commission suspended the Third Proposed Rule Change on January 27, 2022.[14] The Exchange withdrew the Third Proposed Rule Change on February 1, 2022 and now submits this proposal for immediate effectiveness (''Fourth Proposed Rule Change''). This Fourth Proposed Rule Change provides additional justification and explanation for the proposed fee changes.

10Gb ULL Tiered-Pricing Structure

The Exchange proposes to amend Sections 5)a)–b) of the Fee Schedule to

[3] The term ''Member'' means an individual or organization approved to exercise the trading rights associated with a Trading Permit. Members are deemed ''members'' under the Exchange Act. *See* Exchange Rule 100.

[4] *See* Securities Exchange Act Release No. 92645 (August 11, 2021), 86 FR 46048 (August 17, 2021) (SR–EMERALD–2021–23).

[5] *Id.*

[6] *See* Letter from Richard J. McDonald, Susquehanna International Group, LLC (''SIG''), to Vanessa Countryman, Secretary, Commission, dated September 7, 2021 (''SIG Letter 1'').

[7] *See* Securities Exchange Act Release No. 93166 (September 28, 2021), 86 FR 54760 (October 4, 2021) (SR–EMERALD–2021–29).

[8] *Id.*

[9] *See* letters from Richard J. McDonald, SIG, to Vanessa Countryman, Secretary, Commission, dated October 1, 2021 (''SIG Letter 2'') and October 26, 2021 (''SIG Letter 3''). *See also* letter from Tyler Gellasch, Executive Director, Healthy Markets Association (''HMA''), to Hon. Gary Gensler, Chair, Commission, dated October 29, 2021 (commenting on SR–CboeEDGA–2021–017, SR–CboeBYX–2021–020, SR–Cboe–BZX–2021–047, SR–CboeEDGX–2021–030, SR–MIAX–2021–41, SR–PEARL–2021–45, and SR–EMERALD–2021–29 and stating that ''MIAX has repeatedly filed to change its connectivity fees in a way that will materially lower costs for many users, while increasing the costs for some of its heaviest of users. These filings have been withdrawn and repeatedly refiled. *Each time, however, the filings contain significantly greater information about who is impacted and how than other filings that have been permitted to take effect without suspension*'') (*emphasis added*) (''HMA Letter''); *and* Ellen Green, Managing Director, Equity and Options Market Structure, Securities Industry and Financial Markets Association (''SIFMA''), to Vanessa Countryman, Secretary, Commission, dated November 26, 2021 (''SIFMA Letter'').

[10] *See* Securities Exchange Act Release No. 93644 (November 22, 2021), 86 FR 67750 (November 29, 2021).

[11] *See* Securities Exchange Act Release No. 93776 (December 14, 2021), 86 FR 71983 (December 20, 2021) (SR–EMERALD–2021–42).

[12] The Exchange notes that while the HMA Letter applauds the level of disclosure the Exchange included in the First and Second Proposed Rule Changes, the HMA Letter does not raise specific issues with the First or Second Proposed Rule Changes. Rather, it references the Exchange's proposals by way of comparison to show the varying levels of transparency in exchange fees filings and recommends changes to the Commission's review process of exchange fee filings generally. Therefore, the Exchange does not feel it is necessary to address the issues raised in the HMA Letter.

[13] *See supra* note 11.

[14] *See* Securities Exchange Act Release No. 94089 (January 27, 2022) (Suspension of and Order Instituting Proceedings to Determine Whether to Approve or Disapprove Proposed Rule Change to Amend the MIAX Emerald Fee Schedule to Adopt a Tiered Pricing Structure for Certain Connectivity Fees).

provide for a tiered-pricing structure for 10Gb ULL connections for Members and non-Members. Prior to the First Proposed Rule Change, the Exchange assessed Members and non-Members a flat monthly fee of $10,000 per 10Gb ULL connection for access to the Exchange's primary and secondary facilities.

The Exchange now proposes to move from a flat monthly fee per connection to a tiered-pricing structure under which the monthly fee would vary depending on the number of 10Gb ULL connections each Member or non-Member elects to purchase per exchange. Specifically, the Exchange proposes to decrease the fee for the first and second 10Gb ULL connections for each Member and non-Member from the current flat monthly fee of $10,000 to $9,000 per connection. To encourage more efficient connectivity usage, the Exchange proposes to increase the per connection fee for Members and non-Members that purchase more than two 10Gb ULL connections. In particular, (i) the third and fourth 10Gb ULL connections for each Member or non-Member will increase from the current flat monthly fee of $10,000 to $11,000 per connection; and (ii) for the fifth 10Gb ULL connection, and each 10Gb ULL connection purchased by Members and non-Members thereafter, the fee will increase from the flat monthly fee of $10,000 to $13,000 per connection. The proposed 10Gb ULL tiered-pricing structure and fees are collectively referred to herein as the ''Proposed Access Fees.''

The Exchange believes the other exchanges' connectivity fees are a useful example of alternative approaches to providing and charging for connectivity and provides the below table for comparison purposes only to show how its proposed fees compare to fees currently charged by other options exchanges for similar connectivity. As shown by the below table, the Exchange's proposed highest tier is still less than fees charged for similar connectivity provided by other options exchanges.

Exchange	Type of port	Monthly fee
MIAX Emerald (as proposed)	10Gb ULL	1–2 connection. $9,000.00 3–4 connections. $11,000.00 5 or more. $13,000.00.
The NASDAQ Stock Market LLC ("NASDAQ") [15].	10Gb Ultra fiber	$15,000.00
Nasdaq ISE LLC ("ISE") [16]	10Gb Ultra fiber	$15,000.00
Nasdaq PHLX LLC ("PHLX") [17]	10Gb Ultra Fiber	$15,000.00
NYSE American LLC ("Amex") [18]	10Gb LX LCN	$22,000.00

The Exchange will continue to assess monthly Member and non-Member network connectivity fees for connectivity to the primary and secondary facilities in any month the Member or non-Member is credentialed to use any of the Exchange APIs or market data feeds in the production environment. The Exchange proposes to pro-rate the fees when a Member or non-Member makes a change to the connectivity (by adding or deleting connections) with such pro-rated fees based on the number of trading days that the Member or non-Member has been credentialed to utilize any of the Exchange APIs or market data feeds in the production environment through such connection, divided by the total number of trading days in such month multiplied by the applicable monthly rate. The Exchange will continue to assess monthly Member and non-Member network connectivity fees for connectivity to the disaster recovery facility in each month during which the Member or non-Member has established connectivity with the disaster recovery facility.

2. Statutory Basis

The Exchange believes that the Proposed Access Fees are consistent with Section 6(b) of the Act [19] in general, and furthers the objectives of Section 6(b)(4) of the Act [20] in particular, in that they provide for the equitable allocation of reasonable dues, fees and other charges among Members and other persons using any facility or system which the Exchange operates or controls. The Exchange also believes the Proposed Access Fees further the objectives of Section 6(b)(5) of the Act [21] in that they are designed to promote just and equitable principles of trade, remove impediments to and perfect the mechanism of a free and open market and a national market system, and, in general protect investors and the public interest and are not designed to permit unfair discrimination between customers, issuers, brokers and dealers.

On March 29, 2019, the Commission issued an Order disapproving a proposed fee change by the BOX Market LLC Options Facility to establish connectivity fees for its BOX Network (the ''BOX Order'').[22] On May 21, 2019, the Commission Staff issued guidance ''to assist the national securities exchanges and FINRA . . . in preparing Fee Filings that meet their burden to demonstrate that proposed fees are consistent with the requirements of the Securities Exchange Act.'' [23] Based on both the BOX Order and the Guidance, the Exchange believes that the Proposed Access Fees are consistent with the Act because they (i) are reasonable, equitably allocated, not unfairly discriminatory, and not an undue burden on competition; (ii) comply with the BOX Order and the Guidance; (iii) are supported by evidence (including comprehensive revenue and cost data and analysis) that they are fair and reasonable because they will not result in excessive pricing or supra-competitive profit; and (iv) utilize a cost-based justification framework that is substantially similar to a framework previously used by the Exchange, and its affiliates Miami International Securities Exchange, LLC (''MIAX'') and MIAX PEARL, LLC (''MIAX Pearl''), to amend other non-transaction fees.[24]

[15] *See* NASDAQ Rules, General 8: Connectivity, Section 1. Co-Location Services.

[16] *See* PHLX Rules, General 8: Connectivity.

[17] *See* ISE Rules, General 8: Connectivity.

[18] *See* NYSE American Options Fee Schedule, Section IV.

[19] 15 U.S.C. 78f(b).

[20] 15 U.S.C. 78f(b)(4).

[21] 15 U.S.C. 78f(b)(5).

[22] *See* Securities Exchange Act Release No. 85459 (March 29, 2019), 84 FR 13363 (April 4, 2019) (SR–BOX–2018–24, SR–BOX–2018–37, and SR–BOX–2019–04) (Order Disapproving Proposed Rule Changes to Amend the Fee Schedule on the BOX Market LLC Options Facility to Establish BOX Connectivity Fees for Participants and Non-Participants Who Connect to the BOX Network).

[23] *See* Staff Guidance on SRO Rule Filings Relating to Fees (May 21, 2019), at *https://www.sec.gov/tm/staff-guidance-sro-rule-filings-fees* (the ''Guidance'').

[24] *See* Securities Exchange Act Release Nos. 90981 (January 25, 2021), 86 FR 7582 (January 29, 2021) (SR–PEARL–2021–01) (proposal to increase connectivity fees); 90980 (January 25, 2021), 86 FR 7602 (January 29, 2021) (SR–MIAX–2021–02) (proposal to increase connectivity fees).

The Proposed Access Fees Will Not Result in a Supra-Competitive Profit

The Exchange believes that exchanges, in setting fees of all types, should meet very high standards of transparency to demonstrate why each new fee or fee amendment meets the requirements of the Act that fees be reasonable, equitably allocated, not unfairly discriminatory, and not create an undue burden on competition among market participants. The Exchange believes this high standard is especially important when an exchange imposes various access fees for market participants to access an exchange's marketplace. The Exchange deems connectivity to be access fees. It records these fees as part of its ''Access Fees'' revenue in its financial statements.

In Guidance, the Commission Staff stated that, ''[a]s an initial step in assessing the reasonableness of a fee, staff considers whether the fee is constrained by significant competitive forces.'' [25] The Guidance further states that, ''. . . even where an SRO cannot demonstrate, or does not assert, that significant competitive forces constrain the fee at issue, a cost-based discussion may be an alternative basis upon which to show consistency with the Exchange Act.'' [26] In its Guidance, the Commission Staff further states that, ''[i]f an SRO seeks to support its claims that a proposed fee is fair and reasonable because it will permit recovery of the SRO's costs, or will not result in excessive pricing or supra-competitive profit, specific information, including quantitative information, should be provided to support that argument.'' [27] The Exchange does not assert that the Proposed Access Fees are constrained by competitive forces. Rather, the Exchange asserts that the Proposed Access Fees are reasonable because they will permit recovery of the Exchange's costs in providing access services to supply 10Gb ULL connectivity and will not result in the Exchange generating a supra-competitive profit.

The Guidance defines ''supra-competitive profit'' as ''profits that exceed the profits that can be obtained in a competitive market.'' [28] The Commission Staff further states in the Guidance that ''the SRO should provide an analysis of the SRO's baseline revenues, costs, and profitability (before the proposed fee change) and the SRO's expected revenues, costs, and profitability (following the proposed fee change) for the product or service in question.'' [29] The Exchange provides this analysis below.

Based on this analysis, the Exchange believes the Proposed Access Fees are reasonable and do not result in a ''supra-competitive'' [30] profit. The Exchange believes that it is important to demonstrate that the Proposed Access Fees are based on its costs and reasonable business needs. The Exchange believes the Proposed Access Fees will allow the Exchange to offset expenses the Exchange has and will incur, and that the Exchange provides sufficient transparency (described below) into the costs and revenue underlying the Proposed Access Fees. Accordingly, the Exchange provides an analysis of its revenues, costs, and profitability associated with the Proposed Access Fees. This analysis includes information regarding its methodology for determining the costs and revenues associated with the Proposed Access Fees. As a result of this analysis, the Exchange believes the Proposed Access Fees are fair and reasonable as a form of cost recovery plus present the possibility of a reasonable return for the Exchange's aggregate costs of offering connectivity to the Exchange.

The Proposed Access Fees are based on a cost-plus model. In determining the appropriate fees to charge, the Exchange considered its costs to provide connectivity, using what it believes to be a conservative methodology (*i.e.,* that strictly considers only those costs that are most clearly directly related to the provision and maintenance of 10Gb ULL connectivity) to estimate such costs,[31] as well as the relative costs of providing and maintaining 10Gb ULL connectivity, and set fees that are designed to cover its costs with a limited return in excess of such costs. However, as discussed more fully below, such fees may also result in the Exchange recouping less than all of its costs of providing and maintaining 10Gb ULL connectivity because of the uncertainty of forecasting subscriber decision making with respect to firms' connectivity needs and the likely potential for increased costs to procure the third-party services described below.

To determine the Exchange's costs to provide access services associated with the Proposed Access Fees, the Exchange conducted an extensive cost review in which the Exchange analyzed nearly every expense item in the Exchange's general expense ledger to determine whether each such expense relates to the Proposed Access Fees, and, if such expense did so relate, what portion (or percentage) of such expense actually supports access services associated with the Proposed Access Fees.

The Exchange also provides detailed information regarding the Exchange's cost allocation methodology—namely, information that explains the Exchange's rationale for determining that it was reasonable to allocate certain expenses described in this filing towards the cost to the Exchange to provide the access services associated with the Proposed Access Fees. The Exchange conducted a thorough internal analysis to determine the portion (or percentage) of each expense to allocate to the support of access services associated with the Proposed Access Fees. This analysis [32] included discussions with each Exchange department head to determine the expenses that support access services associated with the Proposed Access Fees. This included numerous meetings between the Exchange's Chief Information Officer, Chief Financial Officer, Head of Strategic Planning and Operations, Chief Technology Officer, various members of the Legal Department, and other group leaders. The Exchange reviewed each individual expense to determine if such expense was related to the Proposed Access Fees. Once the expenses were identified, the Exchange department heads, with the assistance of our internal finance department, reviewed such expenses holistically on an Exchange-wide level to determine what portion of that expense supports providing access services for the Proposed Access Fees. The sum of all such portions of expenses represents the total cost to the Exchange to provide access services associated with the Proposed Access Fees. For the avoidance of doubt, no expense amount was allocated twice.

The internal cost analysis conducted by the Exchange is a proprietary process that is designed to make a fair and

[25] *See* Guidance, *supra* note 23.

[26] *Id.*

[27] *Id.*

[28] *Id.*

[29] *Id.*

[30] *Id.*

[31] For example, the Exchange only included the costs associated with providing and supporting connectivity and excluded from its connectivity cost calculations any cost not directly associated with providing and maintaining such connectivity. Thus, the Exchange notes that this methodology underestimates the total costs of providing and maintaining connectivity.

[32] A description of the Exchange's methodology for determining the portion (or percentage) of each expense to allocate to the Proposed Access Fee is being provide in response to comments from SIG and SIFMA. *See* SIG Letter 3 *and* SIFMA Letter, *supra* note 9.

reasonable assessment of costs and resources allocated to support the provision of access services associated with the Proposed Access Fees. The Exchange acknowledges that this assessment can only capture a moment in time and that costs and resource allocations may change. That is why the Exchange has historically, and on an ongoing basis, periodically revisits its costs and resource allocations to ensure it is appropriately allocating resources to properly provide services to the Exchange's constituents. Any requirement that an exchange should conduct a periodic re-evaluation on a set timeline of its cost justification and amend its fees accordingly should be established by the Commission holistically, applied to all exchanges and not just through pending fee proposals, such as this filing. In order to be fairly applied, such a mandate should be applied to existing access fees as well.

In accordance with the Guidance, the Exchange has provided sufficient detail to support a finding that the proposed fees are consistent with the Exchange Act. The proposal includes a detailed description of the Exchange's costs and how the Exchange determined to allocate those costs related to the proposed fees. In fact, the detail and analysis provided in this proposed rule change far exceed the level of disclosure provided in other exchange fee filings that have not been suspended by the Commission during its 60-day suspension period. A finding that this proposed rule change is inconsistent with the Exchange Act would run contrary to the Commission Staff's treatment of other recent exchange fee proposals that have not been suspended and remain in effect today.[33] For example, a proposed fee filing that closely resembles the Exchange's current filing was submitted in 2020 by the Cboe Exchange, Inc. (''Cboe'') and increased fees for Cboe's 10Gb connections.[34] This filing was submitted on September 2, 2020, nearly 15 months after the Staff's Guidance was issued. In that filing, the Cboe stated that the ''proposed changes were not designed with the objective to generate an overall increase in access fee revenue.'' [35] This filing provided no cost based data to support its assertion that the proposal was intended to be revenue neutral. Among other things, Cboe did not provide a description of the costs underlying its provision of 10Gb connections to show that this particular fee did not generate a supra-competitive profit or describe how any potential profit may be offset by increased costs associated with another fee included in its proposal. This filing, nonetheless, was not suspended by the Commission and remains in effect today.

The Exchange believes exchanges, like all businesses, should be provided flexibility when allocating costs and resources they deem necessary to operate their business, including providing market data and access services. The Exchange notes that costs and resource allocations may vary from business to business and, likewise, costs and resource allocations may differ from exchange to exchange when it comes to providing market data and access services. It is a business decision that must be evaluated by each exchange as to how to allocate internal resources and what costs to incur internally or via third parties that it may deem necessary to support its business and its provision of market data and access services to market participants. An exchange's costs may also vary based on fees charged by third parties and periodic increases to those fees that may be outside of the control of an exchange.[36]

To determine the Exchange's projected revenue associated with the Proposed Access Fees, the Exchange analyzed the number of Members and non-Members currently utilizing the 10Gb ULL fiber connection and used a recent monthly billing cycle representative of 2021 monthly revenue. The Exchange also provided its baseline by analyzing July 2021, the monthly billing cycle prior to the Proposed Access Fees going into effect, and compared it to its expenses for that month.[37] As discussed below, the Exchange does not believe it is appropriate to factor into its analysis future revenue growth or decline into its projections for purposes of these calculations, given the uncertainty of such projections due to the continually changing access needs of market participants and potential increase in internal and third party expenses. The Exchange is presenting its revenue and expense associated with the Proposed Access Fees in this filing in a manner that is consistent with how the Exchange presents its revenue and expense in its Audited Unconsolidated Financial Statements. The Exchange's most recent Audited Unconsolidated Financial Statement is for 2020. However, since the revenue and expense associated with the Proposed Access Fees were not in place in 2020 or for the first seven months of 2021, the Exchange believes its 2020 Audited Unconsolidated Financial Statement is not representative of its current total annualized revenue and costs associated with the Proposed Access Fees. Accordingly, the Exchange believes it is more appropriate to analyze the Proposed Access Fees utilizing its 2021 revenue and costs, as described herein, which utilize the same presentation methodology as set forth in the Exchange's previously-issued Audited Unconsolidated Financial Statements. Based on this analysis, the Exchange believes that the Proposed Access Fees are reasonable because they will allow the Exchange to recover its costs associated with providing access services related to the Proposed Access Fees and not result in excessive pricing or supra-competitive profit.

As outlined in more detail below, the Exchange projects that the final annualized expense for 2021 to provide network connectivity services (all connectivity alternatives) to be approximately $7.2 million per annum or an average of $600,000 per month. The Exchange implemented the Proposed Access Fees on August 1, 2021 in the First Proposed Rule Change. For July 2021, prior to the Proposed Access Fees, the Exchange Members and non-Members purchased a total of 98 10Gb ULL connections for which the Exchange charged approximately $971,905 (this includes Members and non-Members dropping or adding connections mid-month, resulting a pro-rated charge at times). This resulted in a profit of $371,905 for that month (a profit margin of 38%). For the month of October 2021, which includes the varying rates for 10Gb ULL connectivity for the Proposed Access Fees, Exchange Members and non-Members purchased a total of 100 10Gb ULL connections for which the Exchange charged approximately $1,146,714 for that

[33] *See, e.g.,* Securities Exchange Act Release Nos. 91339 (March 17, 2021), 86 FR 15524 (March 23, 2021) (SR–CboeBZX–2021–020) (increasing fees for a market data product while not providing a cost based justification for the increase); 93293 (October 21, 2021), 86 FR 57716 (October 18, 2021) (SR–PHLX–2021–058) (increasing fees for historical market data while not providing a cost based justification for the increase); 92970 (September 14, 2021), 86 FR 52261 (September 20, 2021) (SR–CboeBZX–2021–047) (adopting fees for a market data related product while not providing a cost based justification for the fees); and 89826 (September 10, 2021), 85 FR 57900 (September 16, 2021) (SR–CBOE–2020–086) (increasing connectivity fees without including a cost based justification).

[34] *See* Securities Exchange Act Release No. 89826 (September 10, 2020), 85 FR 57900 (September 16, 2020) (SR–CBOE–2020–086) (increasing connectivity fees without including a cost based justification).

[35] *See id.* at 57909.

[36] *See supra* note 32.

[37] *Id.*

month (also including pro-rated connection charges). This resulted in a profit of $546,714 for that month (a modest 9% profit margin increase from July 2021 to October 2021 from 38% to 47%). The Exchange believes that the Proposed Access Fees are reasonable because they only generate an additional 9% of profit margin per-month (reflecting a 47% profit margin). The Exchange cautions that this profit margin is likely to fluctuate from month to month based on the uncertainty of predicting how many connections may be purchased from month to month as Members and non-Members are able to add and drop connections at any time based on their own business decisions. This profit margin may also decrease due to the significant inflationary pressure on capital items that the Exchange needs to purchase to maintain the Exchange's technology and systems.[38] The Exchange has been subject to price increases upwards of 30% during the past year on network equipment due to supply chain shortages. This, in turn, results in higher overall costs for ongoing system maintenance, but also to purchase the items necessary to ensure ongoing system resiliency, performance, and determinism. These costs are expected to continue to go up as the U.S. economy continues to struggle with supply chain and inflation related issues.

As mentioned above, the Exchange projects that its annualized expense for 2021 to provide network connectivity services (all connectivity alternatives) to be approximately $7.2 million per annum or an average of $600,000 per month and that these costs are expected to increase not only due to anticipated significant inflationary pressure, but also periodic fee increases by third parties.[39] The Exchange notes that there are material costs associated with providing the infrastructure and headcount to fully-support access to the Exchange. The Exchange incurs technology expense related to establishing and maintaining Information Security services, enhanced network monitoring and customer reporting, as well as Regulation SCI mandated processes, associated with its network technology. While some of the expense is fixed, much of the expense is not fixed, and thus increases the cost to the Exchange to provide access services associated with the Proposed Access Fees. For example, new Members to the Exchange may require the purchase of additional hardware to support those Members as well as enhanced monitoring and reporting of customer performance that the Exchange and its affiliates provide. Further, as the total number Members increases, the Exchange and its affiliates may need to increase their data center footprint and consume more power, resulting in increased costs charged by their third-party data center provider. Accordingly, the cost to the Exchange and its affiliates to provide access to its Members is not fixed. The Exchange believes the Proposed Access Fees are a reasonable attempt to offset a portion of the costs to the Exchange associated with providing access to its network infrastructure.

The Exchange only has four primary sources of revenue and cost recovery mechanisms to fund all of its operations: Transaction fees, access fees (which includes the Proposed Access Fees), regulatory fees, and market data fees. Accordingly, the Exchange must cover all of its expenses from these four primary sources of revenue and cost recovery mechanisms. Until recently, the Exchange has operated at a cumulative net annual loss since it launched operations in 2019.[40] This is a result of providing a low cost alternative to attract order flow and encourage market participants to experience the high determinism and resiliency of the Exchange's trading Systems.[41] To do so, the Exchange chose to waive the fees for some non-transaction related services or provide them at a very marginal cost, which was not profitable to the Exchange. This resulted in the Exchange forgoing revenue it could have generated from assessing higher fees.

The Exchange believes that the Proposed Access Fees are fair and reasonable because they will not result in excessive pricing or supra-competitive profit, when comparing the total annual expense that the Exchange projects to incur in connection with providing these access services versus the total annual revenue that the Exchange projects to collect in connection with services associated with the Proposed Access Fees. As mentioned above, for 2021,[42] the total annual expense for providing the access services associated with the Proposed Access Fees is projected to be approximately $7.2 million, or approximately $600,000 per month. This projected total annual expense is comprised of the following, all of which are directly related to the access services associated with the Proposed Access Fees: (1) Third-party expense, relating to fees paid by the Exchange to third parties for certain products and services; and (2) internal expense, relating to the internal costs of the Exchange to provide the services associated with the Proposed Access Fees.[43] As noted above, the Exchange believes it is more appropriate to analyze the Proposed Access Fees utilizing its 2021 revenue and costs, which utilize the same presentation methodology as set forth in the Exchange's previously-issued Audited Unconsolidated Financial Statements.[44] The $7.2 million projected total annual expense is directly related to the access services associated with the Proposed Access Fees, and not any other product or service offered by the Exchange. It does not include general costs of operating matching engines and other trading

[38] *See* ''Supply chain chaos is already hitting global growth. And it's about to get worse'', by Holly Ellyatt, CNBC, *available at https://www.cnbc.com/2021/10/18/supply-chain-chaos-is-hitting-global-growth-and-could-get-worse.html* (October 18, 2021); *and* ''There will be things that people can't get, at Christmas, White House warns'' by Jarrett Renshaw and Trevor Hunnicutt, Reuters, *available at https://www.reuters.com/world/us/americans-may-not-get-some-christmas-treats-white-house-officials-warn-2021-10-12/* (October 12, 2021).

[39] For example, on October 20, 2021, ICE Data Services announced a 3.5% price increase effective January 1, 2022 for most services. The price increase by ICE Data Services includes their SFTI network, which is relied on by a majority of market participants, including the Exchange. *See* email from ICE Data Services to the Exchange, dated October 20, 2021. The Exchange further notes that on October 22, 2019, the Exchange was notified by ICE Data Services that it was raising its fees charged to the Exchange by approximately 11% for the SFTI network.

[40] The Exchange has incurred a cumulative loss of $22 million since its inception in 2019 to 2020, the last year for which the Exchange's Form 1 data is available. *See* Exchange's Form 1/A, Application for Registration or Exemption from Registration as a National Securities Exchange, filed July 28, 2021, *available at https://sec.report/Document/9999999997-21-004557/*.

[41] The term ''System'' means the automated trading system used by the Exchange for the trading of securities. *See* Exchange Rule 100.

[42] The Exchange has not yet finalized its 2021 year end results.

[43] The percentage allocations used in this proposed rule change may differ from past filings from the Exchange or its affiliates due to, among other things, changes in expenses charged by third-parties, adjustments to internal resource allocations, and different system architecture of the Exchange as compared to its affiliates.

[44] For example, the Exchange previously noted that all third-party expense described in its prior fee filing was contained in the information technology and communication costs line item under the section titled ''Operating Expenses Incurred Directly or Allocated From Parent,'' in the Exchange's 2019 Form 1 Amendment containing its financial statements for 2018. *See* Securities Exchange Act Release No. 87877 (December 31, 2019), 85 FR 738 (January 7, 2020) (SR–EMERALD–2019–39). Accordingly, the third-party expense described in this filing is attributed to the same line item for the Exchange's 2021 Form 1 Amendment, which will be filed in 2022.

technology. No expense amount was allocated twice.

As discussed above, the Exchange conducted an extensive cost review in which the Exchange analyzed nearly every expense item in the Exchange's general expense ledger (this includes over 150 separate and distinct expense items) to determine whether each such expense relates to the access services associated with the Proposed Access Fees, and, if such expense did so relate, what portion (or percentage) of such expense actually supports those services, and thus bears a relationship that is, ''in nature and closeness,'' directly related to those services. In performing this calculation, the Exchange considered other services and to which the expense may be applied and how much of the expense is directly and/or indirectly utilized in providing those other services. The sum of all such portions of expenses represents the total cost of the Exchange to provide access services associated with the Proposed Access Fees.

External Expense Allocations

For 2021, expenses relating to fees paid by the Exchange to third-parties for products and services necessary to provide the access services associated with the Proposed Access Fees is projected to be $1.7 million. This includes, but is not limited to, a portion of the fees paid to: (1) Equinix for data center services, including for the primary, secondary, and disaster recovery locations of the Exchange's trading system infrastructure; (2) Zayo Group Holdings, Inc. (''Zayo'') for network services (fiber and bandwidth products and services) linking the Exchange's and its affiliates' office locations in Princeton, New Jersey and Miami, Florida, to all data center locations; (3) Secure Financial Transaction Infrastructure (''SFTI''),[45] which supports connectivity and feeds for the entire U.S. options industry; (4) various other services providers (including Thompson Reuters, NYSE, Nasdaq, and Internap), which provide content, connectivity services, and infrastructure services for critical components of options connectivity and network services; and (5) various other hardware and software providers (including Dell and Cisco, which support the production environment in which Members connect to the network to trade, receive market data, etc.).

For clarity, the Exchange took a conservative approach in determining the expense and the percentage of that expense to be allocated to providing access services in connection with the Proposed Access Fees. Only a portion of all fees paid to such third-parties is included in the third-party expenses described herein, and no expense amount is allocated twice. Accordingly, the Exchange does not allocate its entire information technology and communication costs to the access services associated with the Proposed Access Fees. This may result in the Exchange under allocating an expense to the provision of access services in connection with the Proposed Access Fees and such expenses may actually be higher or increase above what the Exchange utilizes within this proposal. Further, the Exchange notes that expenses associated with its affiliates, MIAX and MIAX Pearl (the options and equities markets), are accounted for separately and are not included within the scope of this filing. Further, as part its ongoing assessment of costs and expenses (described above), the Exchange recently conducted a periodic thorough review of its expenses and resource allocations which, in turn, resulted in revised percentage allocations in this filing. Therefore, the percentage allocations used in this proposed rule change may differ from past filings from the Exchange or its affiliates due to, among other things, changes in expenses charged by third-parties, adjustments to internal resource allocations, and different system architecture of the Exchange as compared to its affiliates. The Exchange notes that the expense allocations differ from the Exchange's filing earlier this year, SR–EMERALD–2021–11, because that prior filing pertained to several different access fees, which the Exchange had not been charging for since the Exchange launched operations in March 2019.[46] In SR–EMERALD–2021–11, the Exchange sought to adopt fees for FIX Ports, MEI Ports, Purge Ports, Clearing Trade Drop Ports, and FIX Drop Copy Ports, all of which had been free for market participants for over two years.

The Exchange believes it is reasonable to allocate such third-party expense described above towards the total cost to the Exchange to provide the access services associated with the Proposed Access Fees. In particular, the Exchange believes it is reasonable to allocate the identified portion of the Equinix expense because Equinix operates the data centers (primary, secondary, and disaster recovery) that host the Exchange's network infrastructure. This includes, among other things, the necessary storage space, which continues to expand and increase in cost, power to operate the network infrastructure, and cooling apparatuses to ensure the Exchange's network infrastructure maintains stability. Without these services from Equinix, the Exchange would not be able to operate and support the network and provide the access services associated with the Proposed Access Fees to its Members and their customers. The Exchange did not allocate all of the Equinix expense toward the cost of providing the access services associated with the Proposed Access Fees, only that portion which the Exchange identified as being specifically mapped to providing the access services associated with the Proposed Access Fees. According to the Exchange's calculations, it allocated approximately 62% of the total applicable Equinix expense to providing the access services associated with the Proposed Access Fees. The Exchange believes this allocation is reasonable because it represents the Exchange's actual cost to provide the access services associated with the Proposed Access Fees, and not any other service, as supported by its cost review.[47]

The Exchange believes it is reasonable to allocate the identified portion of the Zayo expense because Zayo provides the internet, fiber and bandwidth connections with respect to the network, linking the Exchange with its affiliates, MIAX Pearl and MIAX, as well as the data center and disaster recovery locations. As such, all of the trade data, including the billions of messages each day per exchange, flow through Zayo's infrastructure over the Exchange's network. Without these services from Zayo, the Exchange would not be able to operate and support the network and provide the access services associated with the Proposed Access Fees. The Exchange did not allocate all of the Zayo expense toward the cost of providing the access services associated with the Proposed Access Fees, only the portion which the Exchange identified as being specifically mapped to providing the Proposed Access Fees. According to the Exchange's

[45] *See supra* note 39.

[46] *See* Securities Exchange Act Release No. 91460 (April 2, 2021), 86 FR 18349 (April 8, 2021) (SR–EMERALD–2021–11).

[47] As noted above, the percentage allocations used in this proposed rule change may differ from past filings from the Exchange or its affiliates due to, among other things, changes in expenses charged by third-parties, adjustments to internal resource allocations, and different system architecture of the Exchange as compared to its affiliates. Again, as part its ongoing assessment of costs and expenses, the Exchange recently conducted a periodic thorough review of its expenses and resource allocations which, in turn, resulted in a revised percentage allocations in this filing.

calculations, it allocated approximately 62% of the total applicable Zayo expense to providing the access services associated with the Proposed Access Fees. The Exchange believes this allocation is reasonable because it represents the Exchange's actual cost to provide the access services associated with the Proposed Access Fees, and not any other service, as supported by its cost review.[48]

The Exchange believes it is reasonable to allocate the identified portions of the SFTI expense and various other service providers' (including Thompson Reuters, NYSE, Nasdaq, and Internap) expense because those entities provide connectivity and feeds for the entire U.S. options industry, as well as the content, connectivity services, and infrastructure services for critical components of the network. Without these services from SFTI and various other service providers, the Exchange would not be able to operate and support the network and provide access to its Members and their customers. The Exchange did not allocate all of the SFTI and other service providers' expense toward the cost of providing the access services associated with the Proposed Access Fees, only the portions which the Exchange identified as being specifically mapped to providing the access services associated with the Proposed Access Fees. According to the Exchange's calculations, it allocated approximately 89% of the total applicable SFTI and other service providers' expense to providing the access services associated with the Proposed Access Fees. The Exchange believes this allocation is reasonable because it represents the Exchange's actual cost to provide the access services associated with the Proposed Access Fees.[49]

The Exchange believes it is reasonable to allocate the identified portion of the other hardware and software provider expense because this includes costs for dedicated hardware licenses for switches and servers, as well as dedicated software licenses for security monitoring and reporting across the network. Without this hardware and software, the Exchange would not be able to operate and support the network and provide access to its Members and their customers. The Exchange did not allocate all of the hardware and software provider expense toward the cost of providing the access services associated with the Proposed Access Fees, only the portions which the Exchange identified as being specifically mapped to providing the access services associated with the Proposed Access Fees. According to the Exchange's calculations, it allocated approximately 51% of the total applicable hardware and software provider expense to providing the access services associated with the Proposed Access Fees. The Exchange believes this allocation is reasonable because it represents the Exchange's actual cost to provide the access services associated with the Proposed Access Fees.[50]

Internal Expense Allocations

For 2021, total projected internal expenses relating to the Exchange providing the access services associated with the Proposed Access Fees are projected to be approximately $5.5 million. This includes, but is not limited to, costs associated with: (1) Employee compensation and benefits for full-time employees that support the access services associated with the Proposed Access Fees, including staff in network operations, trading operations, development, system operations, business, as well as staff in general corporate departments (such as legal, regulatory, and finance) that support those employees and functions (including an increase as a result of the higher determinism project); (2) depreciation and amortization of hardware and software used to provide the access services associated with the Proposed Access Fees, including equipment, servers, cabling, purchased software and internally developed software used in the production environment to support the network for trading; and (3) occupancy costs for leased office space for staff that provide the access services associated with the Proposed Access Fees. The breakdown of these costs is more fully-described below.

For clarity, and as stated above, the Exchange took a conservative approach in determining the expense and the percentage of that expense to be allocated to providing access services in connection with the Proposed Access Fees. Only a portion of all such internal expenses are included in the internal expense herein, and no expense amount is allocated twice. Accordingly, the Exchange does not allocate its entire costs contained in those items to the access services associated with the Proposed Access Fees. This may result in the Exchange under allocating an expense to the provision of access services in connection with the Proposed Access Fees and such expenses may actually be higher or increase above what the Exchange utilizes within this proposal. Further, as part its ongoing assessment of costs and expenses (described above), the Exchange recently conducted a periodic thorough review of its expenses and resource allocations which, in turn, resulted in a revised percentage allocations in this filing.

The Exchange believes it is reasonable to allocate such internal expense described above towards the total cost to the Exchange to provide the access services associated with the Proposed Access Fees. In particular, the Exchange's employee compensation and benefits expense relating to providing the access services associated with the Proposed Access Fees is projected to be approximately $3.2 million, which is only a portion of the approximately $9.7 million total projected expense for employee compensation and benefits. The Exchange believes it is reasonable to allocate the identified portion of such expense because this includes the time spent by employees of several departments, including Technology, Back Office, Systems Operations, Networking, Business Strategy Development (who create the business requirement documents that the Technology staff use to develop network features and enhancements), Trade Operations, Finance (who provide billing and accounting services relating to the network), and Legal (who provide legal services relating to the network, such as rule filings and various license agreements and other contracts). As part of the extensive cost review conducted by the Exchange, the Exchange reviewed the amount of time spent by employees on matters relating to the provision of access services associated with the Proposed Access Fees. Without these employees, the Exchange would not be able to provide the access services associated with the Proposed Access Fees to its Members and their customers. The Exchange did not allocate all of the employee compensation and benefits expense toward the cost of the access services associated with the Proposed Access Fees, only the portions which the Exchange identified as being specifically mapped to providing the access services associated with the Proposed Access Fees. According to the Exchange's calculations, it allocated approximately 33% of the total applicable employee compensation and benefits expense to providing the access services associated with the Proposed Access Fees. The Exchange believes this allocation is reasonable because it

[48] *Id.*

[49] *Id. See also supra* note 39 (regarding SFTI's announced fee increases).

[50] *See supra* note 47.

represents the Exchange's actual cost to provide the access services associated with the Proposed Access Fees, and not any other service, as supported by its cost review.[51]

The Exchange's depreciation and amortization expense relating to providing the services associated with the Proposed Access Fees is projected to be $2 million, which is only a portion of the $3.1 million total projected expense for depreciation and amortization. The Exchange believes it is reasonable to allocate the identified portion of such expense because such expense includes the actual cost of the computer equipment, such as dedicated servers, computers, laptops, monitors, information security appliances and storage, and network switching infrastructure equipment, including switches and taps that were purchased to operate and support the network and provide the access services associated with the Proposed Access Fees. Without this equipment, the Exchange would not be able to operate the network and provide the access services associated with the Proposed Access Fees to its Members and their customers. The Exchange did not allocate all of the depreciation and amortization expense toward the cost of providing the access services associated with the Proposed Access Fees, only the portion which the Exchange identified as being specifically mapped to providing the access services associated with the Proposed Access Fees. According to the Exchange's calculations, it allocated approximately 63% of the total applicable depreciation and amortization expense to providing the access services associated with the Proposed Access Fees, as these access services would not be possible without relying on such. The Exchange believes this allocation is reasonable because it represents the Exchange's actual cost to provide the access services associated with the Proposed Access Fees, and not any other service, as supported by its cost review.[52]

The Exchange's occupancy expense relating to providing the services associated with the Proposed Access Fees is projected to be approximately $0.3 million, which is only a portion of the $0.5 million total projected expense for occupancy. The Exchange believes it is reasonable to allocate the identified portion of such expense because such expense represents the portion of the Exchange's cost to rent and maintain a physical location for the Exchange's staff who operate and support the network, including providing the access services associated with the Proposed Access Fees. This amount consists primarily of rent for the Exchange's Princeton, New Jersey office, as well as various related costs, such as physical security, property management fees, property taxes, and utilities. The Exchange operates its Network Operations Center (''NOC'') and Security Operations Center (''SOC'') from its Princeton, New Jersey office location. A centralized office space is required to house the staff that operates and supports the network. The Exchange currently has approximately 200 employees. Approximately two-thirds of the Exchange's staff are in the Technology department, and the majority of those staff have some role in the operation and performance of the access services associated with the Proposed Access Fees. Accordingly, the Exchange believes it is reasonable to allocate the identified portion of its occupancy expense because such amount represents the Exchange's actual cost to house the equipment and personnel who operate and support the Exchange's network infrastructure and the access services associated with the Proposed Access Fees. The Exchange did not allocate all of the occupancy expense toward the cost of providing the access services associated with the Proposed Access Fees, only the portion which the Exchange identified as being specifically mapped to operating and supporting the network. According to the Exchange's calculations, it allocated approximately 53% of the total applicable occupancy expense to providing the access services associated with the Proposed Access Fees. The Exchange believes this allocation is reasonable because it represents the Exchange's cost to provide the access services associated with the Proposed Access Fees, and not any other service, as supported by its cost review.[53]

The Exchange notes that a material portion of its total overall expense is allocated to the provision of access services (including connectivity, ports, and trading permits). The Exchange believes this is reasonable and in line, as the Exchange operates a technology-based business that differentiates itself from its competitors based on its more deterministic and resilient trading systems that rely on access to a high performance network, resulting in significant technology expense. Over two-thirds of Exchange staff are technology-related employees. The majority of the Exchange's expense is technology-based. As described above, the Exchange has only four primary sources of fees to recover their costs; thus, the Exchange believes it is reasonable to allocate a material portion of its total overall expense towards access fees.

Based on the above, the Exchange believes that its provision of access services associated with the Proposed Access Fees will not result in excessive pricing or supra-competitive profit. As discussed above, the Exchange projects that its annualized expense for 2021 to provide network connectivity services (all connectivity alternatives) to be approximately $7.2 million per annum or an average of $600,000 per month. The Exchange implemented the Proposed Access Fees on August 1, 2021. For July 2021, prior to the Proposed Access Fees, Exchange Members and non-Members purchased a total of 98 10Gb ULL connections for which the Exchange charged approximately $971,905. This resulted in a profit of $371,905 (a profit margin of 38%) for that month (including pro-rated charges). For the month of October 2021, which includes the varying 10Gb ULL connectivity fees pursuant to the Proposed Access Fees, the Exchange had Members and non-Members purchasing a total of 100 10Gb ULL connections for which the Exchange charged approximately $1,146,714 (including pro-rated charges). This resulted in a profit of $546,714 for that month (a modest 9% profit margin increase from July 2021 to October 2021 from 38% to 47%). The Exchange believes that the Proposed Access Fees are reasonable because they only generate an additional 9% of profit margin per month (reflecting a 47% profit margin). The Exchange believes this modest increase in profit margin will allow it to continue to recoup its expenses and continue to invest in its technology infrastructure. Therefore, the Exchange also believes that this proposed profit margin increase is reasonable because it represents a reasonable rate of return.

Again, the Exchange cautions that this profit margin may fluctuate from month to month based in the uncertainty of predicting how many connections may be purchased from month to month as Members and non-Members are free to add and drop connections at any time based on their own business decisions. Notwithstanding that the revenue (and profit margin) may vary from month to month due to changes in connections and to changes to the Exchange's expenses, the number of connections has not materially changed over the prior months. Consequently, the Exchange believes that the months it has

[51] *Id.*

[52] *Id.*

[53] *Id.*

used as a baseline to perform its assessment are representative of reasonably anticipated costs and expenses. This profit margin may also decrease due to the significant inflationary pressure on capital items that it needs to purchase to maintain the Exchange's technology and systems.[54] Accordingly, the Exchange believes its total projected revenue for the providing the access services associated with the Proposed Access Fees will not result in excessive pricing or supra-competitive profit.

The Exchange believes that conducting the above analysis on a per month basis is reasonable as the revenue generated from access services subject to the proposed fee generally remains static from month to month. The Exchange also conducted the above analysis on a per month basis to comply with the Commission Staff's Guidance, which requires a baseline analysis to assist in determining whether the proposal generates a supra-competitive profit. This monthly analysis was also provided in response to comment received on prior submissions of this proposed rule change.

The Exchange reiterates that it only has four primary sources of revenue and cost recovery mechanisms: Transaction fees, access fees (which includes the Proposed Access Fees), regulatory fees, and market data fees. Accordingly, the Exchange must cover all of its expenses from these four primary sources of revenue and cost recovery mechanisms. As a result, each of these fees cannot be ''flat'' and cover only the expenses directly related to the fee that is charged. The above revenue and associated profit margin therefore are not solely intended to cover the costs associated with providing access services subject to the Proposed Access Fees.

The Exchange believes it is reasonable, equitable and not unfairly discriminatory to allocate the respective percentages of each expense category described above towards the total cost to the Exchange of operating and supporting the network, including providing the access services associated with the Proposed Access Fees because the Exchange performed a line-by-line item analysis of nearly every expense of the Exchange, and has determined the expenses that directly relate to providing access to the Exchange. Further, the Exchange notes that, without the specific third-party and internal expense items listed above, the Exchange would not be able to provide the access services associated with the Proposed Access Fees to its Members and their customers. Each of these expense items, including physical hardware, software, employee compensation and benefits, occupancy costs, and the depreciation and amortization of equipment, have been identified through a line-by-line item analysis to be integral to providing access services. The Proposed Access Fees are intended to recover the costs of providing access to the Exchange's System. Accordingly, the Exchange believes that the Proposed Access Fees are fair and reasonable because they do not result in excessive pricing or supra-competitive profit, when comparing the actual costs to the Exchange versus the projected annual revenue from the Proposed Access Fees.

The Proposed Tiered-Pricing Structure Is Not Unfairly Discriminatory and Provides for the Equitable Allocation of Fees, Dues, and Other Charges

The Exchange believes the proposed tiered-pricing structure is reasonable, fair, equitable, and not unfairly discriminatory because it will apply to all Members and non-Members in the same manner based on the amount of 10Gb ULL connectivity they require based on their own business decisions and usage of Exchange resources. All similarly situated Members and non-Members would be subject to the same fees. The fees do not depend on any distinction between Members and non-Members because they are solely determined by the individual Members' or non-Members' business needs and its impact on Exchange resources.

The proposed tiered-pricing structure is not unfairly discriminatory and provides for the equitable allocation of fees, dues, and other charges because it is designed to encourage Members and non-Members to be more efficient and economical when determining how to connect to the Exchange and the amount of the fees are based on the number of connections a Member or non-Member utilizes. Charging an incrementally higher fee to a Member or non-Member that utilizes numerous connections is directly related to the increased costs the Exchange incurs in providing and maintaining those additional connections. The proposed tiered pricing structure should also enable the Exchange to better monitor and provide access to the Exchange's network to ensure sufficient capacity and headroom in the System.

The Exchange believes that the proposal to move to a tiered-pricing structure for its 10Gb ULL connections is reasonable, equitably allocated and not unfairly discriminatory because the majority of Members and non-Members that purchase 10Gb ULL connections will either save money or pay the same amount after the tiered-pricing structure is implemented. After the effective date of the First Proposed Rule Change on August 1, 2021, approximately 60% of the firms that purchased at least one 10Gb ULL connection experienced a decrease in their monthly connectivity fees while only approximately 40% of firms experienced an increase in their monthly connectivity fees as a result of the proposed tiered-pricing structure when compared to the flat monthly fee structure. To illustrate, firms that purchase only one 10Gb ULL connection per month used to pay the flat rate of $10,000 per month for that one 10Gb ULL connection. Pursuant to the proposed tiered-pricing structure, these firms now pay $9,000 per month for that same one 10Gb ULL connection, saving $1,000 per month or $12,000 annually. Further, firms that purchase two 10Gb ULL connections per month previously paid a flat rate of $20,000 per month ($10,000 × 2) for those two 10Gb ULL connections. Pursuant to the proposed tiered-pricing structure, these firms now pay $18,000 per month ($9,000 × 2) for those two 10Gb ULL connections, saving $2,000 per month or $24,000 annually.

To achieve a consistent, premium network performance, the Exchange must build out and continue to maintain a network that has the capacity to handle the message rate requirements of not only firms that consume minimal Exchange connectivity resources, but also those firms that most heavily consume Exchange connectivity resources, network consumers, and purchasers of 10Gb ULL connectivity. 10Gb ULL connectivity is not an unlimited resource as the Exchange needs to purchase additional equipment to satisfy requests for additional connections. The Exchange also needs to provide personnel to set up new connections, service requests related to adding new and/or deleting existing connections, respond to performance queries from, and to maintain those connections on behalf of Members and non-Members. Also, those firms that utilize 10Gb ULL connectivity typically generate a disproportionate amount of messages and order traffic, usually billions per day across the Exchange. These billions of messages per day consume the Exchange's resources and significantly contribute to the overall network connectivity expense for storage and network transport capabilities. The Exchange also has to purchase additional storage capacity on

[54] *See supra* note 38.

an ongoing basis to ensure it has sufficient capacity to store these messages as part of it surveillance program and to satisfy its record keeping requirements under the Exchange Act.[55] Thus, as the number of connections an entity has increases, certain other costs incurred by the Exchange that are correlated to, though not directly affected by, connection costs (*e.g.,* storage costs, surveillance costs, service expenses) also increase.

The Exchange sought to design the proposed tiered-pricing structure to set the amount of the fees to relate to the number of connections a firm purchases. The more connections purchased by a firm likely results in greater expenditure of Exchange resources and increased cost to the Exchange. With this in mind, the Exchange proposes to decrease the monthly fees for those firms who connect to the Exchange as part of their best execution obligations and generally tend to send the least amount of orders and messages over those connections. The Exchange notes that firms that primarily route orders seeking best-execution generally only purchase a limited number of connections. Those firms also generally send fewer orders and messages over those connections, resulting in less strain on Exchange resources. Therefore, the connectivity costs will likely be lower for these firms based on the proposed tiered-pricing structure.

On a similar note, the Exchange proposes to increase the fee for those firms that purchase more connections resulting in greater expenditure of Exchange resources and increased cost to the Exchange. The Exchange notes that these firms that purchase more than two to four 10Gb ULL connections essentially do so for competitive reasons amongst themselves and choose to utilize numerous connections based on their business needs and desire to attempt to access the market quicker by using the connection with the least amount of latency. These firms are generally engaged in sending liquidity removing orders to the Exchange and seek to add more connections so they can access resting liquidity ahead of their competitors. For instance, a Member may have just sent numerous messages and/or orders over one of their 10Gb ULL connections that are in queue to be processed. That same Member then seeks to enter an order to remove liquidity from the Exchange's Book. That Member may choose to send that order over one or more of their other 10Gb ULL connections with less message and/or order traffic to ensure that their liquidity taking order accesses the Exchange quicker because that connection's queue is shorter. These firms also tend to frequently add and drop connections mid-month to determine which connections have the least latency, which results in increased costs to the Exchange to frequently make changes in the data center and provide the additional technical and personnel support necessary to satisfy these requests.

The firms that engage in the above-described liquidity removing and advanced trading strategies typically require multiple connections and, therefore, generate higher costs by utilizing more of the Exchange's resources. Those firms may also conduct other latency measurements over their connections and drop and simultaneously add connections mid-month based on their own assessment of their performance. This results in Exchange staff processing such requests, potentially purchasing additional equipment, and performing the necessary network engineering to replace those connections in the data center. Therefore, the Exchange believes it is equitable for these firms to experience increased connectivity costs based on their disproportionate pull on Exchange resources to provide the additional connectivity.

In addition, the proposed tiered-pricing structure is equitable because it is designed to encourage Members and non-Members to be more efficient and economical when determining how to connect to the Exchange. Section 6(b)(5) of the Exchange Act requires the Exchange to provide access on terms that are not unfairly discriminatory.[56] As stated above, 10Gb ULL connectivity is not an unlimited resource and the Exchange's network is limited in the amount of connections it can provide. However, the Exchange must accommodate requests for additional connectivity and access to the Exchange's System to ensure that the Exchange is able to provide access on non-discriminatory terms and ensure sufficient capacity and headroom in the System. To accommodate requests for additional connectivity on top of current network capacity constraints, requires that the Exchange purchase additional equipment to satisfy these requests. The Exchange also needs to provide personnel to set up new connections and to maintain those connections on behalf of Members and non-Members. The proposed tiered-pricing structure is equitable because it is designed to encourage Members and non-Members to be more efficient and economical in selecting the amount of connectivity they request while balancing that against the Exchange's increased expenses when expanding its network to accommodate additional connectivity.

The Proposed Fees Are Reasonable When Compared to the Fees of Other Options Exchanges With Similar Market Share

The Exchange does not have visibility into other equities exchanges' costs to provide connectivity or their fee markup over those costs, and therefore cannot use other exchange's connectivity fees as a benchmark to determine a reasonable markup over the costs of providing connectivity. Nevertheless, the Exchange believes the other exchange's connectivity fees are a useful example of alternative approaches to providing and charging for connectivity. To that end, the Exchange believes the proposed tiered-pricing structure for 10Gb ULL connections is reasonable because the proposed highest tier is still less than fees charged for similar connectivity provided by other options exchanges with comparable market shares. For example, NASDAQ (equity options market share of 8.88% as of November 26, 2021 for the month of November) [57] charges a monthly fee of $10,000 per 10Gb fiber connection and $15,000 per 10Gb Ultra fiber connection.[58] The highest tier of the Exchange's proposed fee structure for a 10Gb ULL connection is $13,000 for the fifth and subsequent connections, which is $2,000 per month less than NASDAQ and, unlike NASDAQ, the Exchange does not charge installation fees. For market participants with fewer connections, the difference is even more stark. For a market participant with two connections to the Exchange and two connections to NASDAQ, the difference in connection fees would be $12,000 per month. The Exchange notes that the same connectivity fees described above for NASDAQ also apply to its affiliates, ISE [59] (equity options market share of 7.96% as of November 26, 2021 for the month of November) [60] and PHLX (equity options market share of 9.31% as of November 26, 2021 for the month

[55] 17 CFR 240.17a–1 (recordkeeping rule for national securities exchanges, national securities associations, registered clearing agencies and the Municipal Securities Rulemaking Board).

[56] 15 U.S.C. 78f(b)(5).

[57] See ''The market at a glance,'' available at *https://www.miaxoptions.com/* (last visited November 26, 2021).

[58] *See* NASDAQ Rules, General 8: Connectivity, Section 1. Co-Location Services.

[59] *See* ISE Rules, General 8: Connectivity.

[60] *See supra note 57.*

of November).[61] Amex (equity options market share of 5.05% as of November 26, 2021 for the month of November) [62] charges $15,000 per connection initially plus $22,000 monthly per 10Gb LX LCN circuit connection.[63] Again, the highest tier of the Exchange's proposed fee structure for a 10Gb ULL connection is $9,000 per month lower than the Amex connectivity fee after the first month.

In the each of the above cases, the Exchange's highest tier in the proposed tiered-pricing structure only applies to the fifth and additional connections and is still significantly lower than that of competing options exchanges with similar market share. Despite proposing lower or similar fees to that of competing options exchanges with similar market share, the Exchange believes that it provides a premium network experience to its Members and non-Members via a highly deterministic System, enhanced network monitoring and customer reporting, and a superior network infrastructure than markets with higher market shares and more expensive connectivity alternatives. Each of the connectivity rates in place at competing options exchanges were filed with the Commission for immediate effectiveness and remain in place today.

The Exchange further believes that the Proposed Access Fees are reasonable, equitably allocated and not unfairly discriminatory because, for one 10Gb ULL connection, the Exchange provides each Member or non-Member access to all twelve (12) matching engines on MIAX Emerald and a vast majority choose to connect to all twelve (12) matching engines. The Exchange believes that other exchanges require firms to connect to multiple matching engines.[64]

B. Self-Regulatory Organization's Statement on Burden on Competition

The Exchange does not believe that the proposed rule change will impose any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act.

With respect to intra-market competition, the Exchange does not believe that the proposed rule change would place certain market participants at the Exchange at a relative disadvantage compared to other market participants or affect the ability of such market participants to compete. As stated above, the Exchange does not believe its proposed pricing will impose a barrier to entry to smaller participants and notes that its proposed connectivity pricing structure for its 10Gb ULL connections is associated with relative usage of the various market participants. Further, the majority of firms that purchase 10Gb ULL connections may either save money or pay the same amount after the tiered-pricing structure is implemented. While total cost may be increased for market participants with larger capacity needs or for business/technical preferences, such options provide far more capacity and are purchased by those that consume more resources from the network. Accordingly, the proposed tiered-pricing structure does not favor certain categories of market participants in a manner that would impose an undue burden on competition; rather, the allocation reflects the network resources consumed by the various usage of market participants—lowest bandwidth consuming members pay the least, and highest bandwidth consuming members pay the most, particularly since higher bandwidth consumption translates to higher costs to the Exchange.

The Exchange also does not believe that the proposed rule change will result in any burden on inter-market competition that is not necessary or appropriate in furtherance of the purposes of the Act. As discussed above, options market participants are not forced to connect to all options exchanges. The Exchange operates in a highly competitive environment, and as discussed above, its ability to price access and connectivity is constrained by competition among exchanges and third parties. There are other options markets of which market participants may connect to trade options. There is also a possible range of alternative strategies, including routing to the exchange through another participant or market center or accessing the Exchange indirectly. For example, there are 15 other U.S. options exchanges, which the Exchange must consider in its pricing discipline in order to compete for market participants. In this competitive environment, market participants are free to choose which competing exchange or reseller to use to satisfy their business needs. As a result, the Exchange believes this proposed rule change permits fair competition among national securities exchanges. Accordingly, the Exchange does not believe its proposed fee changes impose any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act.

Regrettably, the Exchange believes that the application of the Guidance to date has adversely affected inter-market competition by impeding the ability of smaller, low cost exchanges to adopt or increase fees for their market data and access services (including connectivity and port products and services). Since the adoption of the Guidance, and even more so recently, it has become harder, particularly for smaller, low cost exchanges, to adopt or increase fees to generate revenue necessary to invest in systems, provide innovative trading products and solutions, and improve competitive standing to the benefit of the affected exchanges' market participants. Although the Staff Guidance has served an important policy goal of improving disclosures and requiring exchanges to justify that their market data and access fee proposals are fair and reasonable, it has also negatively impacted exchanges, and particularly many smaller, low cost exchanges, that seek to adopt or increase fees despite providing enhanced disclosures and rationale to support their proposed fee changes.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others

As described above, the Exchange received one comment letter on the First Proposed Rule Change and four comment letters on the Second Proposed Rule Change.[65] The Exchange responded to the comment letters in the Third Proposed Rule Change and repeats its response in is filing. No comment letters were received in response to the Third Proposed Rule Change.

HMA Letter

The HMA Letter does not raise specific issues with the First or Second Proposed Rule Changes. Instead the HMA Letter is generally critical of the exchange fee filing process contained in Section 19(b)(3)(A)(ii) of the Act,[66] and Rule 19b–4(f)(2) thereunder,[67] and other exchanges' fee filings in recent years.

[61] *See id. See also* PHLX Rules, General 8: Connectivity.

[62] *See supra note 57.*

[63] *See* Amex Fee Schedule, Section IV.

[64] *See* Specialized Quote Interface Specification, Nasdaq PHLX, Nasdaq Options Market, Nasdaq BX Options, Version 6.5a, Section 2, Architecture (revised August 16, 2019), *available at http://www.nasdaqtrader.com/content/technicalsupport/specifications/TradingProducts/SQF6.5a-2019-Aug.pdf*. The Exchange notes that it is unclear whether the NASDAQ exchanges include connectivity to each matching engine for the single fee or charge per connection, per matching engine. *See also* NYSE Technology FAQ and Best Practices: Options, Section 5.1 (How many matching engines are used by each exchange?) (September 2020). The Exchange notes that NYSE provides a link to an Excel file detailing the number of matching engines per options exchange, with Arca and Amex having 19 and 17 matching engines, respectively.

[65] *See supra* note 9.

[66] 15 U.S.C. 78s(b)(3)(A)(ii).

[67] 17 CFR 240.19b–4.

The HMA Letter, however, applauds the level of disclosure the Exchange included in the First and Second Proposed Rule Changes and was supportive of the efforts made by the Exchange and its affiliates to provide transparency and justify their proposed fees. The HMA Letter specifically notes that:

''MIAX has repeatedly filed to change its connectivity fees in a way that will materially lower costs for many users, while increasing the costs for some of its heaviest of users. These filings have been withdrawn and repeatedly refiled. Each time, however, the filings contain significantly greater information about who is impacted and how than other filings that have been permitted to take effect without suspension. For example, MIAX detailed the associated projected revenues generated from the connectivity fees by user class, again in a clear attempt to comply with the SRO Fee Filing Guidance.'' [68]

As the HMA Letter notes, the Exchange refiled its same fee proposals to include significantly greater information about who is impacted and how, primarily at the request of the Commission Staff and in response to comments. The Exchange is again refiling its proposal to include more information surrounding the proposed fees and to respond to commenters.

SIG Letter 2

SIG Letter 2 argues that the Exchange, in withdrawing the First Proposed Rule Change and refiling the Second Proposed Rule Change, ''improperly circumvent[ed] the procedural protections embedded in Exchange Act Section 19(b)(3)(C), and subvert[ed] the balance of interests upheld therein.'' [69] SIG's assertion that the Exchange's entire reason for withdrawing and refiling was to subvert the protections of the Exchange Act are entirely without merit. The Exchange withdrew the First Proposed Rule Change and replaced it with the Second Proposed Rule Change in good faith to provide additional justification and explanation for the proposed fee changes and did so in compliance with the Exchange Act. The same is true in this filing, where the Exchange withdrew the Second Proposed Rule Change and submitted this filing to provide additional justification and explanation for the proposed fee changes and directly responds to certain points raised in SIG Letters 1, 2, and 3, as well as the SIFMA Letter submitted on the First and Second Proposed Rule Changes.

As SIG well knows, exchanges are able withdraw and refile various proposals (including fee changes and other rule changes) with the Commission for a multitude of reasons, not the least of which is to address feedback and comments from market participants and Commission Staff. The Exchange is well within the bounds of the Act and the rules and regulations thereunder to withdraw a proposed rule change and replace it with a new proposed rule change in good faith and to enhance the filing to ensure it complies with the requirements of the Act.

SIG Letters 1 and 3

As an initial matter, SIG Letter 1 cites Rule 700(b)(3) of the Commission's Rules of Fair Practice which places ''the burden to demonstrate that a proposed rule change is consistent with the Act on the self-regulatory organization that proposed the rule change'' and states that a ''mere assertion that the proposed rule change is consistent with those requirements . . . is not sufficient.'' [70] SIG Letter 1's assertion that the Exchange has not met this burden is without merit, especially considering the overwhelming amounts of revenue and cost information the Exchange included in the First and Second Proposed Rule Changes and this filing.

Until recently, the Exchange operated at a net annual loss since it launched operations in 2019.[71] As stated above, the Exchange believes that exchanges in setting fees of all types should meet very high standards of transparency to demonstrate why each new fee or fee increase meets the requirements of the Act that fees be reasonable, equitably allocated, not unfairly discriminatory, and not create an undue burden on competition among market participants. The Exchange believes this high standard is especially important when an exchange imposes various access fees for market participants to access an exchange's marketplace. The Exchange believes it has achieved this standard in this filing and in the First Proposed Rule Change, Second Proposed Rule Change. Similar justifications for the proposed fee change included in the First and Second Proposed Rule Changes, but also in this filing, were previously included in similar fee changes filed by the Exchange and its affiliates, MIAX and MIAX Pearl Options, and SIG did not submit a comment letter on those filings.[72] Those filings were not suspended by the Commission and continue to remain in effect. The justification included in each of the prior filings was the result of numerous withdrawals and re-filings of the proposals to address comments received from Commission Staff over many months. The Exchange and its affiliates have worked diligently with Commission Staff on ensuring the justification included in past fee filings fully support an assertion that those fee changes are consistent with the Act.[73] The Exchange leveraged its past work with Commission Staff to ensure the justification provided herein and in the First and Second Proposed Rule Changes include the same level of detail (or more) as the prior fee changes that survived Commission scrutiny. The Exchange's detailed disclosures in fee filings have also been applauded by one industry group which noted, ''[the Exchange's] filings contain significantly greater information about who is impacted and how than other filings

[68] *See* HMA Letter, *supra* note 9.

[69] *See* SIG Letter 2, *supra* note 9.

[70] 17 CFR 201.700(b)(3).

[71] *See supra* note 40.

[72] *See* Securities Exchange Act Release Nos. 91858 (May 12, 2021), 86 FR 26967 (May 18, 2021) (SR–PEARL–2021–23) (Notice of Filing and Immediate Effectiveness of a Proposed Rule Change to Amend the MIAX Pearl Fee Schedule to Remove the Cap on the Number of Additional Limited Service Ports Available to Market Makers); 91460 (April 2, 2021), 86 FR 18349 (April 8, 2021) (SR–EMERALD–2021–11) (Notice of Filing and Immediate Effectiveness of a Proposed Rule Change To Amend Its Fee Schedule To Adopt Port Fees, Increase Certain Network Connectivity Fees, and Increase the Number of Additional Limited Service MIAX Emerald Express Interface Ports Available to Market Makers); *and* 91857 (May 12, 2021), 86 FR 26973 (May 18, 2021) (SR–MIAX–2021–19) (Notice of Filing and Immediate Effectiveness of a Proposed Rule Change To Amend Its Fee Schedule To Remove the Cap on the Number of Additional Limited Service Ports Available to Market Makers).

[73] *See, e.g.,* Securities Exchange Act Release No. 90196 (October 15, 2020), 85 FR 67064 (October 21, 2020) (SR–EMERALD–2020–11) (Notice of Filing and Immediate Effectiveness of a Proposed Rule Change To Amend Its Fee Schedule To Adopt One-Time Membership Application Fees and Monthly Trading Permit Fees). *See* Securities Exchange Act Release Nos. 90601 (December 8, 2020), 85 FR 80864 (December 14, 2020) (SR–EMERALD–2020–18) (re-filing with more detail added in response to Commission Staff's feedback and after withdrawing SR–EMERALD–2020–11); *and* 91033 (February 1, 2021), 86 FR 8455 (February 5, 2021) (SR–EMERALD–2021–03) (re-filing with more detail added in response to Commission Staff's feedback and after withdrawing SR–EMERALD–2020–18). The Exchange initially filed a proposal to remove the cap on the number of additional Limited Service MEO Ports available to Members on April 9, 2021. *See* SR–PEARL–2021–17. On April 22, 2021, the Exchange withdrew SR–PEARL–2021–17 and refiled that proposal (without increasing the actual fee amounts) to provide further clarification regarding the Exchange's revenues, costs, and profitability any time more Limited Service MEO Ports become available, in general, (including information regarding the Exchange's methodology for determining the costs and revenues for additional Limited Service MEO Ports). *See* SR–PEARL–2021–20. On May 3, 2021, the Exchange withdrew SR–PEARL–2021–20 and refiled that proposal to further clarify its cost methodology. *See* SR–PEARL–2021–22. On May 10, 2021, the Exchange withdrew SR–PEARL–2021–22 and refiled SR–PEARL–2021–23. *See* Securities Exchange Act Release No. 91858 (May 12, 2021), 86 FR 26967 (May 18, 2021) (SR–PEARL–2021–23).

that have been permitted to take effect without suspension.'' [74] That same commenter also noted their ''worry that the Commission's process for reviewing and evaluating exchange filings may be inconsistently applied.'' [75]

Therefore, a finding by the Commission that the Exchange has not met its burden to show that the proposed fee change is consistent with the Act would be different than the Commission's treatment of similar past filings, would create further ambiguity regarding the standards exchange fee filings should satisfy, and is not warranted here.

In addition, the arguments in SIG Letter 1 do not support their claim that the Exchange has not met its burden to show the proposed rule change is consistent with the Act. Prior to, and after submitting the First Proposed Rule Change, the Exchange solicited feedback from its Members, including SIG. SIG relayed their concerns regarding the proposed change. The Exchange then sought to work with SIG to address their concerns and gain a better understanding of the access/connectivity/quoting infrastructure of other exchanges. In response, SIG provided no substantive suggestions on how to amend the First Proposed Rule Change to address their concerns and instead chose to submit three comment letters. One could argue that SIG is using the comment letter process not to raise legitimate regulatory concerns regarding the proposal, but to inhibit or delay proposed fee changes by the Exchange.

Nonetheless, the Exchange has enhanced its cost and revenue analysis and data in this Third [sic] Proposed Rule Change to further justify that the Proposed Access Fees are reasonable in accordance with the Commission Staff's Guidance. Among other things, these enhancements include providing baseline information in the form of data from the month before the Proposed Access Fees became effective.

The Exchange now responds to SIG remaining claims below. SIG Letter 3 first summarizes its arguments made in SIG Letters 1 and 2 and incorporates those arguments by reference. The Exchange responded to the arguments in SIG Letter 2 above. SIG Letter 3 incorporates the following arguments from SIG Letter 1, which the Exchange will first respond to in turn, below:

''(1) The prospect that a member may withdraw from the Exchanges if a fee is too costly is not a basis for asserting that the fee is reasonable; (2) profit margin comparisons do not support the Exchanges' claims that they will not realize a supracompetitive profit, the Exchanges' respective profit margins of 30% (for MIAX and Pearl) and 51% (for Emerald) in relation to connectivity fees are high in any event, and comparisons to competing exchanges' overall operating profit margins are an inapt ''apples-to-oranges'' comparison; (3) the Exchanges provide no support for their claim that their proposed tiered pricing structure is needed to encourage efficiency in connectivity usage; (4) the Exchanges provided no support for their claim that the tiered pricing structure allows them to better monitor connectivity usage, nor that this is an appropriate basis for the pricing structure in any event; (5) the Exchanges' claim that firms who purchase more 10Gb ULL lines generate ''higher'' costs is misleading, and they offered no support for this claim in any event; (6) no other exchange has tiered connectivity pricing; (7) the recoupment of investment for exchange infrastructure has no supporting nexus with the claim that the proposed fees are reasonable, equitably allocated, and not unfairly discriminatory; and (8) the recoupment of investment claim belies the Exchanges' claim of encouraging efficiency in connectivity usage.'' [76]

The Exchange's Examples of Members Terminating Their Exchange Access Shows That Members Have Choice Whether To Connect to an Exchange Based on Fees

SIG asserts that ''the prospect that a member may withdraw from the Exchanges if a fee is too costly is not a basis for asserting that the fee is reasonable.'' [77] SIG misinterprets the Exchange's argument here. The Exchange provided the examples of firms terminating access to certain markets due to fees to support its assertion that firms, including market makers, are not required to connect to all markets and may drop access if fees become too costly for their business models and alternative or substitute forms of connectivity are available to those firms who choose to terminate access. The Commission Staff Guidance also provides that ''[a] statement that substitute products or services are available to market participants in the relevant market (*e.g.,* equities or options) can demonstrate competitive forces if supported by evidence that substitute products or services exist.'' [78] Nonetheless, the Third [sic] Proposed Rule Change no longer makes this assertion as a basis for the proposed fee change and, therefore, the Exchange believes it is not necessary to respond to this portion of SIG Letters 1 and 3.

The Proposed Fees Will Not Result in Excessive Pricing or Supra-Competitive Profit

Next, SIG asserts that the Exchange's ''profit margin comparisons do not support the Exchange's claims that they will not realize a supracompetitive profit,'' that ''the Exchanges' respective profit margins of 30% (for MIAX and Pearl) and 51% (for Emerald) in relation to connectivity fees are high in any event,'' and ''comparisons to competing exchanges' overall operating profit margins are an inapt 'apples-to-oranges' comparison.''

The Exchange has provided ample data that the proposed fees would not result in excessive pricing or a supra-competitive profit. In this Third [sic] Proposed Rule Change, the Exchange no longer utilizes a comparison of its profit margin to that of other options exchanges as a basis that the Proposed Access Fees are reasonable. Rather, the Exchange has enhanced its cost and revenue analysis and data in this Third [sic] Proposed Rule Change to further justify that the Proposed Access Fees are reasonable in accordance with the Commission Staff's Guidance. Therefore, the Exchange believes it is no longer necessary to respond to this portion of SIG Letters 1 and 3.

The Proposed Tiered Pricing Structure Is Not Unfairly Discriminatory

SIG challenges the proposed fees by arguing that ''the Exchange[ ] provide[s] no support for [its] claim that [the] proposed tiered pricing structure is needed to encourage efficiency in connectivity usage and the Exchange[ ] provided no support for [the] claim that the tiered pricing structure allows them to better monitor connectivity usage, nor that this is an appropriate basis for the pricing structure in any event.'' The Exchange provided additional justification to support that the Proposed Access Fees are equitable and not unfairly discriminatory above in response to SIG's assertions.

Firms That Purchase More 10Gb ULL Generate Higher Exchange Costs

SIG argues that ''the Exchanges' claim that firms who purchase more 10Gb ULL lines generate 'higher' costs is misleading,'' and that the Exchange has ''offered no support for this claim in any event.'' As described above, the Exchange sought to design the proposed tiered-pricing structure to set the amount of the fees to relate to the number of connections a firm purchases and the Exchange believes it provided

[74] *See* HMA Letter, *supra* note 9.

[75] *Id.* (providing examples where non-transaction fee filings by other exchanges have been permitted to remain effective and not suspended by the Commission despite less disclosure and justification).

[76] *See* SIG Letter 3, *supra* note 9.

[77] *Id.*

[78] *See* Guidance, *supra* note 23.

ample justification for the proposed tiered-pricing structure in the First and Second Proposed Rule Changes. Nonetheless, the Exchange provides additional justification to support that the Proposed Access Fees are equitable and not unfairly discriminatory above in response to SIG's assertions.

The Proposed Tiered-Pricing Structure for 10Gb ULL Connectivity Will Provide Cost Savings for the Majority of Exchange Members

The SIG Letter incorrectly asserts that no other exchange has tiered connectivity pricing. Numerous other exchanges provide tiered fee structures for various other types of access to their platforms, including trading permits and ports.[79] The Exchange provided adequate evidence that most firms would incur cost savings under the Proposed Access Fees in the First and Second Proposed Rule Changes and this filing. Nonetheless, the Exchange believes it provided additional justification to support that the Proposed Access Fees are equitable and not unfairly discriminatory above in response to SIG's assertions.

Recoupment of Exchange Infrastructure Costs

Nowhere in this proposal or in the First Proposed Fee change did the Exchange assert that it benefits competition to allow a new exchange entrant to recoup their infrastructure costs. Rather, the Exchange asserts above that its ''proposed fees are reasonable, equitably allocated and not unfairly discriminatory because the Exchange, and its affiliates, are still recouping the initial expenditures from building out their systems while the legacy exchanges have already paid for and built their systems.'' The Exchange no longer makes this assertion in this filing and, therefore, does not believe is it necessary to respond to SIG's assertion here.

SIFMA Letter

In sum, the SIFMA Letter asserts that the Exchange has failed to demonstrate that the Proposed Access Fees are reasonable for three reasons:

(i) ''The Exchanges' ''platform competition'' argument that competition for order flow constrains pricing for market data or other products and services exclusively offered by an exchange does not demonstrate that the fees are reasonable.''

(ii) ''. . . order flow competition alone between exchanges does not demonstrate that the fees for the products and services subject to the Proposal are reasonable.''

(iii) ''the Exchanges' argument that the products and services subject to the Proposals are optional does not reflect marketplace reality, nor does it demonstrate that the proposed fees are reasonable.''

The Exchange responds to each of SIFMA's challenges in turn below.

The Exchange Never Set Forth a ''Platform Competition'' Argument

The SIFMA Letter asserts that the Exchange's ''platform competition'' argument that competition for order flow constrains pricing for market data or other products and services exclusively offered by an exchange does not demonstrate that the fees are reasonable.'' [80] The Exchange does not believe it is necessary to respond to this assertion because it has never set forth a ''platform competition'' [81] argument to justify the Proposed Access Fees in the First or Second Proposed Rule Change nor does it do so in this filing.

The Exchange Is Not Arguing That Order Flow Competition Alone Demonstrates That the Proposed Fees Are Reasonable

The SIFMA Letter asserts that ''order flow competition alone between exchanges does not demonstrate that the fees for the products and services subject to the Proposal are reasonable.'' [82] The Exchange never directly asserted in the First or Second Proposed Rule Changes, nor does it do so in this filing, that order flow competition, alone, demonstrated that the Proposed Access Fees are reasonable and has removed any language that could imply this argument from this filing.

Other SIFMA Assertions

SIFMA also challenges or asserts: (i) The substitutability or optionality of 10Gb ULL connections, (ii) whether the Exchange has shown that the fees are equitable and non-discriminatory; (iii) that a tiered pricing structure will impose higher cost on all market participants; (iv) that a tiered pricing structure will encourage market participants to be more economical with the usage; (v) greater number of connections use greater Exchange resources; and (vi) that the Exchange has not provided extensive information regarding its cost data and how it determined it cost analysis. The Exchange believes that these assertions by SIFMA basically echo assertions made in SIG Letters 1 and 3 and that it provided a response to these assertions under its response to SIG above or in provided enhanced transparency and justification in this filing.

III. Suspension of the Proposed Rule Change

Pursuant to Section 19(b)(3)(C) of the Act,[83] at any time within 60 days of the date of filing of a proposed rule change pursuant to Section 19(b)(1) of the Act,[84] the Commission summarily may temporarily suspend the change in the rules of a self-regulatory organization (''SRO'') if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act. As discussed below, the Commission believes a temporary suspension of the proposed rule change is necessary and appropriate to allow for additional analysis of the proposed rule change's consistency with the Act and the rules thereunder.

As the Exchange further details above, the Exchange first filed a proposed rule change proposing fee changes as proposed herein on July 30, 2021, with the proposed fee changes effective beginning August 1, 2021. That proposal, SR–EMERALD–2021–23, was published for comment in the **Federal Register** on August 17, 2021.[85] On September 24, 2021 the Exchange withdrew SR–EMERALD–2021–23 and filed a proposed rule change proposing fee changes as proposed herein. That proposal, SR–EMERALD–2021–29, was

[79] *See* Cboe Exchange, Inc. Fee Schedule, Logical Connectivity Fees ($750 per port per month for the first 5 BOE/FIX Logical Ports and $800 per port per month for each port over 5; $1,500 per port per month for the first 5 BOE Bulk Logical Ports, $2,500 per port per month for ports 6–30, and $3,000 per port per month for each port over 30); Cboe BXZ Exchange, Inc. Options Fee Schedule, Options Logical Port Fees, Ports with Bulk Quoting Capabilities ($1,500 per port per month for the first and second ports, $2,500 per port per month for three or more); Nasdaq Stock Market LLC, Options 7, Pricing Schedule, Section 3 ($1,500 per port per month for the first 5 SQF ports; $1,000 per port per month for SQF ports 15–20; and $500 per port per month for all SQF ports over 21); NYSE American Options Fee Schedule, Section V.A., Port Fees and NYSE Arca Options Fee Schedule, Port Fees (both charging $450 per port for order/quote entry ports 1–40 and $150 per port for ports 41 and greater).

[80] *See* SIFMA Letter, *supra* note 9.

[81] Pursuant to the Guidance, ''platform theory generally asserts that when a business offers facilities that bring together two or more distinct types of customers, it is the overall return of the platform, rather than the return of any particular fees charged to a type of customer, that should be used to assess the competitiveness of the platform's market.'' *See* Guidance, *supra* note 23.

[82] *See* SIFMA Letter, *supra* note 9.

[83] 15 U.S.C. 78s(b)(3)(C).

[84] 15 U.S.C. 78s(b)(1).

[85] *See* Securities Exchange Act Release No. 92645 (August 11, 2021), 86 FR 46048 (August 17, 2021) (SR–EMERALD–2021–23). The Commission received one comment letter on that proposal. Comment for SR–EMERALD–2021–23 can be found at: *https://www.sec.gov/comments/sr-emerald-2021-23/sremerald202123.htm.*

published for comment in the **Federal Register** on October 4, 2021.[86] The Commission received four comment letters from three separate commenters on SR–EMERALD–2021–29.[87] On November 22, 2021, pursuant to Section 19(b)(3)(C) of the Act, the Commission: (1) Temporarily suspended the proposed rule change; and (2) instituted proceedings to determine whether to approve or disapprove the proposed rule change.[88] On December 1, 2021, the Exchange withdrew SR–EMERALD–2021–29 and filed a proposed rule change proposing fee changes as proposed herein. That filing, SR–EMERALD–2021–42,[89] was published for comment in the **Federal Register** on December 20, 2021.[90] On January 27, 2022, pursuant to Section 19(b)(3)(C) of the Act, the Commission: (1) Temporarily suspended the proposed rule change (SR–EMERALD–2021–42) and (2) instituted proceedings to determine whether to approve or disapprove the proposal.[91] On February 1, 2022, the Exchange withdrew SR–EMERALD–2021–42 and filed the instant filing, which is substantially similar.

When exchanges file their proposed rule changes with the Commission, including fee filings like the Exchange's present proposal, they are required to provide a statement supporting the proposal's basis under the Act and the rules and regulations thereunder applicable to the exchange.[92] The instructions to Form 19b–4, on which exchanges file their proposed rule changes, specify that such statement ''should be sufficiently detailed and specific to support a finding that the proposed rule change is consistent with [those] requirements.'' [93]

Among other things, exchange proposed rule changes are subject to Section 6 of the Act, including Sections 6(b)(4), (5), and (8), which requires the rules of an exchange to: (1) Provide for the equitable allocation of reasonable fees among members, issuers, and other persons using the exchange's facilities; [94] (2) perfect the mechanism of a free and open market and a national market system, protect investors and the public interest, and not be designed to permit unfair discrimination between customers, issuers, brokers, or dealers; [95] and (3) not impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act.[96]

In temporarily suspending the Exchange's fee change, the Commission intends to further consider whether the proposal to modify fees for certain connectivity options and implement a tiered pricing fee structure is consistent with the statutory requirements applicable to a national securities exchange under the Act. In particular, the Commission will consider whether the proposed rule change satisfies the standards under the Act and the rules thereunder requiring, among other things, that an exchange's rules provide for the equitable allocation of reasonable fees among members, issuers, and other persons using its facilities; not permit unfair discrimination between customers, issuers, brokers or dealers; and do not impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act.[97]

Therefore, the Commission finds that it is appropriate in the public interest, for the protection of investors, and otherwise in furtherance of the purposes of the Act, to temporarily suspend the proposed rule change.[98]

IV. Proceedings To Determine Whether To Approve or Disapprove the Proposed Rule Change

The Commission is instituting proceedings pursuant to Sections 19(b)(3)(C) [99] and 19(b)(2)(B) [100] of the Act to determine whether the Exchange's proposed rule change should be approved or disapproved. Institution of such proceedings is appropriate at this time in view of the legal and policy issues raised by the proposed rule change. Institution of proceedings does not indicate that the Commission has reached any conclusions with respect to any of the issues involved. Rather, as described below, the Commission seeks and encourages interested persons to provide comments on the proposed rule change to inform the Commission's analysis of whether to approve or disapprove the proposed rule change.

Pursuant to Section 19(b)(2)(B) of the Act,[101] the Commission is providing notice of the grounds for possible disapproval under consideration. The Commission is instituting proceedings to allow for additional analysis of whether the Exchange has sufficiently demonstrated how the proposed rule change is consistent with Sections 6(b)(4),[102] 6(b)(5),[103] and 6(b)(8) [104] of the Act. Section 6(b)(4) of the Act requires that the rules of a national securities exchange provide for the equitable allocation of reasonable dues, fees, and other charges among its members and issuers and other persons using its facilities. Section 6(b)(5) of the Act requires that the rules of a national securities exchange be designed, among other things, to promote just and equitable principles of trade, to remove impediments to and perfect the mechanism of a free and open market and a national market system and, in general, to protect investors and the public interest, and not be designed to permit unfair discrimination between customers, issuers, brokers, or dealers. Section 6(b)(8) of the Act requires that the rules of a national securities exchange not impose any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act.

The Commission asks that commenters address the sufficiency of the Exchange's statements in support of the proposal, in addition to any other comments they may wish to submit about the proposed rule change. In particular, the Commission seeks comment on the following aspects of the proposal and asks commenters to submit data where appropriate to support their views:

[86] *See* Securities Exchange Act Release No. 93166 (September 28, 2021), 86 FR 54760 (October 4, 2021) (SR–EMERALD–2021–29).

[87] Comment on SR–EMERALD–2021–29 can be found at: *https://www.sec.gov/comments/sr-emerald-2021-29/sremerald202129.htm.*

[88] *See* Securities Exchange Act Release No. 93644 (November 22, 2021), 86 FR 67750 (November 29, 2021).

[89] *See* text accompanying *supra* note 12.

[90] *See* Securities Exchange Act Release No. 93776 (December 14, 2021), 86 FR 71983 (December 20, 2021).

[91] *See* Securities Exchange Act Release No. 94089 (January 27, 2022), 87 FR 5910 (February 2, 2022).

[92] *See* 17 CFR 240.19b–4 (Item 3 entitled ''Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change'').

[93] *Id.*

[94] 15 U.S.C. 78f(b)(4).

[95] 15 U.S.C. 78f(b)(5).

[96] 15 U.S.C. 78f(b)(8).

[97] *Se* 15 U.S.C. 78f(b)(4), (5), and (8), respectively.

[98] For purposes of temporarily suspending the proposed rule change, the Commission has considered the proposed rule's impact on efficiency, competition, and capital formation. *See* 15 U.S.C. 78c(f).

[99] 15 U.S.C. 78s(b)(3)(C). Once the Commission temporarily suspends a proposed rule change, Section 19(b)(3)(C) of the Act requires that the Commission institute proceedings under Section 19(b)(2)(B) to determine whether a proposed rule change should be approved or disapproved.

[100] 15 U.S.C. 78s(b)(2)(B).

[101] 15 U.S.C. 78s(b)(2)(B). Section 19(b)(2)(B) of the Act also provides that proceedings to determine whether to disapprove a proposed rule change must be concluded within 180 days of the date of publication of notice of the filing of the proposed rule change. *See id.* The time for conclusion of the proceedings may be extended for up to 60 days if the Commission finds good cause for such extension and publishes its reasons for so finding, or if the exchange consents to the longer period. *See id.*

[102] 15 U.S.C. 78f(b)(4).

[103] 15 U.S.C. 78f(b)(5).

[104] 15 U.S.C. 78f(b)(8).

1. *Cost Estimates and Allocation.* The Exchange states that it is not asserting that the Proposed Access Fees are constrained by competitive forces, but rather set forth a ''cost-plus model,'' employing a ''conservative methodology'' that ''strictly considers only those costs that are most clearly directly related to the provision and maintenance of 10Gb ULL connectivity to estimate such costs.'' [105] Setting forth its costs in providing 10Gb ULL connectivity, and as summarized in greater detail above, the Exchange projects $7.2 million in aggregate annual estimated costs for 2021 as the sum of: (1) $1.7 million in third-party expenses paid in total to Equinix (62% of the total applicable expense) for data center services; Zayo Group Holdings, for network services (62% of the total applicable expense); SFTI for connectivity support, Thompson Reuters, NYSE, Nasdaq, and Internap and others (89% of the total applicable expense) for content, connectivity services, and infrastructure services; and various other hardware and software providers (51% of the total applicable expense) supporting the production environment, and (2) $5.5 million in internal expenses, allocated to (a) employee compensation and benefit costs ($3.2 million, approximately 33% of the Exchange's total applicable employee compensation and benefits expense); (b) depreciation and amortization ($2 million, approximately 63% of the Exchange's total applicable depreciation and amortization expense); and (c) occupancy costs ($0.3 million, approximately 53% of the Exchange's total applicable occupancy expense). Do commenters believe that the Exchange has provided sufficient detail about how it determined which costs are most clearly directly associated with providing and maintaining 10Gb ULL connectivity? The Exchange describes a ''proprietary'' process involving all Exchange department heads, including the finance department and numerous meetings between the Exchange's Chief Information Officer, Chief Financial Officer, Head of Strategic Planning and Operations, Chief Technology Officer, various members of the Legal Department, and other group leaders, but do not specify further what principles were applied in making these determinations or arriving at particular allocations. Do commenters believe further explanation is necessary? For employee compensation and benefit costs, for example, the Exchange calculated an allocation of employee time in several departments, including Technology, Back Office, Systems Operations, Networking, Business Strategy Development, Trade Operations, Finance, and Legal, but do not provide the job titles and salaries of persons whose time was accounted for, or explain the methodology used to determine how much of an employee's time is devoted to that specific activity. What are commenters' views on whether the Exchange has provided sufficient detail on the identity and nature of services provided by third parties? Across all of the Exchange's projected costs, what are commenters' views on whether the Exchange has provided sufficient detail on the elements that go into connectivity costs, including how shared costs are allocated and attributed to connectivity expenses, to permit an independent review and assessment of the reasonableness of purported cost-based fees and the corresponding profit margin thereon? Should the Exchange be required to identify for what services or fees the remaining percentage of un-allocated expenses are attributable to (*e.g.,* what services or fees are associated with the 37% of applicable depreciation and amortization expenses the Exchange does not allocate to the Proposed Access Fees)? Do commenters believe that the costs projected for 2021 are generally representative of expected costs going forward (to the extent commenters consider 2021 to be a typical or atypical year), or should an exchange present an estimated range of costs with an explanation of how profit margins could vary along the range of estimated costs? Should the Exchange use cost projections or actual costs estimated for 2021 in a filing made in 2022, or make cost projections for 2022?

2. *Revenue Estimates and Profit Margin Range.* The Exchange provides a single monthly revenue figure as the basis for calculating the profit margin of 47%. Do commenters believe this is reasonable? If not, why not? The Exchange states that their proposed fee structure is ''designed to cover its costs with a limited return in excess of such costs,'' and that ''revenue and associated profit margin [ ] are not solely intended to cover the costs associated with providing access services subject to the Proposed Access Fees,'' and believes that a 47% margin is a limited return over such costs.[106] The profit margin is also dependent on the accuracy of the cost projections which, if inflated (intentionally or unintentionally), may render the projected profit margin meaningless. The Exchange acknowledges that this margin may fluctuate from month to month due to changes in the number of connections purchased, and that costs may increase. They also state that the number of connections has not materially changed over the prior months and so the months that the Exchange has used as a baseline to perform its assessment are representative of reasonably anticipated costs and expenses.[107] The Exchange does not account for the possibility of cost decreases, however. What are commenters' views on the extent to which actual costs (or revenues) deviate from projected costs (or revenues)? Do commenters believe that the Exchange's methodology for estimating the profit margin is reasonable? Should the Exchange provide a range of profit margins that they believe are reasonably possible, and the reasons therefor?

3. *Reasonable Rate of Return.* Do commenters agree with the Exchange that its expected 47% profit margin would constitute a reasonable rate of return over cost for 10GB ULL connectivity? If not, what would commenters consider to be a reasonable rate of return and/or what methodology would they consider to be appropriate for determining a reasonable rate of return? What are commenters' views regarding what factors should be considered in determining what constitutes a reasonable rate of return for 10Gb ULL connectivity fees? Do commenters believe it relevant to an assessment of reasonableness that the Exchange's proposed fees for 10Gb ULL connections, even at the highest tier, are lower than those of other options exchanges to which the Exchange has compared the Proposed Access Fees? What are commenters' views regarding the difference in profit margins between the Exchange, at 47%, and that of its affiliates (MIAX and PEARL Options), at 21.3%? Do commenters believe that this profit margin difference between affiliates for the same Proposed Access Fees is appropriate given the Exchange's Proposed Access Fees are not for shared 10Gb ULL connectivity; why or why not? Should an assessment of reasonable rate of return include consideration of factors other than costs; and if so, what factors should be considered, and why?

4. *Periodic Reevaluation.* The Exchange has addressed whether it believes a material deviation from the anticipated profit margin would warrant the need to make a rule filing pursuant to Section 19(b) of the Act to increase or decrease the fees accordingly, stating that ''[a]ny requirement that an exchange should conduct a periodic re-evaluation on a set timeline of its cost justification and amend its fees accordingly should be established by the Commission holistically, applied to all exchanges and not just through pending fee proposals, such as this filing,'' and that ''[i]n order to be fairly applied, such a mandate should be applied to existing access fees as well.'' [108] In light of the impact that the number of subscribers has on connectivity profit margins, and the potential for costs to decrease (or increase) over time, what are commenters' views on the need for exchanges to commit to reevaluate, on an ongoing and periodic basis, their cost-based connectivity fees to ensure that they stay in line with their stated profitability target and do not become unreasonable over time, for example, by failing to adjust for efficiency gains, cost increases or decreases, and changes in subscribers? How formal should that process be, how often should that reevaluation occur, and what metrics and thresholds should be considered? How soon after a new connectivity fee change is implemented should an exchange assess whether its subscriber estimates were accurate and at what threshold should an exchange commit to file a fee change if its estimates were inaccurate? Should an initial review take place within the first 30 days after a connectivity fee is implemented? 60 days? 90 days? Some other period?

5. *Tiered Structure for 10Gb ULL Connections.* The Exchange states that the proposed tiered fee structure is designed to decrease the monthly fees for those firms that connect to the Exchange as part of their best execution obligations and generally tend to send the least amount of orders and messages over those connections, because such firms generally only purchase a limited number of

[105] *See supra* Section II.A.2.

[106] *See supra* Section II.A.2.

[107] *See id.*

[108] *See supra* Section II.A.2.

connections, and also ''generally send fewer orders and messages over those connections, resulting in less strain on Exchange resources.'' [109] According to the Exchange, 80% of firms have not experienced a fee increase as a result of the tiered structure. However, firms that purchase five or more connections will see a 30% increase in their fees for each connection above the fourth. Regarding these firms, the Exchange has not asserted that it is 30% more costly for the Exchange to offer such connections to these firms, but instead argues generally that these firms are ''likely'' to result in greater expenditure of Exchange resources and increased cost to the Exchange and that as the number of connections an entity has increases, certain other costs incurred by the Exchange that are correlated to, though not directly affected by, connection costs (*e.g.,* storage costs, surveillance costs, service expenses) also increase.[110] Do commenters believe that the price differences between the tiers are supported by the Exchange's assertions that it set the level of its proposed fees in a manner that it is equitable and not unfairly discriminatory? Do commenters believes the Exchange should demonstrate how the proposed tiered fee levels correlate with tiered costs (*e.g.,* by providing cost information broken down by tier, messaging and order volumes through the additional 10Gb ULL connections by tier, and/or mid-month add/drop of connection rates by tier)? Do commenters believe that the Exchange should provide more detail about the costs that firms purchasing three or more or five or more 10Gb ULL connections impose on the Exchange, to permit an assessment of the Exchange's statement that the Proposed Access Fees ''do not depend on any distinction between Members and non-Members because they are solely determined by the individual Members' or non-Members' business needs and its impact on Exchange resources?'' [111]

Under the Commission's Rules of Practice, the ''burden to demonstrate that a proposed rule change is consistent with the Exchange Act and the rules and regulations issued thereunder . . . is on the [SRO] that proposed the rule change.'' [112] The description of a proposed rule change, its purpose and operation, its effect, and a legal analysis of its consistency with applicable requirements must all be sufficiently detailed and specific to support an affirmative Commission finding,[113] and any failure of an SRO to provide this information may result in the Commission not having a sufficient basis to make an affirmative finding that a proposed rule change is consistent with the Act and the applicable rules and regulations.[114] Moreover, ''unquestioning reliance'' on an SRO's representations in a proposed rule change would not be sufficient to justify Commission approval of a proposed rule change.[115]

The Commission believes it is appropriate to institute proceedings to allow for additional consideration and comment on the issues raised herein, including as to whether the proposal is consistent with the Act, any potential comments or supplemental information provided by the Exchange, and any additional independent analysis by the Commission.

V. Commission's Solicitation of Comments

The Commission requests written views, data, and arguments with respect to the concerns identified above as well as any other relevant concerns. In particular, the Commission invites the written views of interested persons concerning whether the proposal is consistent with Sections 6(b)(4), 6(b)(5), and 6(b)(8), or any other provision of the Act, or the rules and regulations thereunder. The Commission asks that commenters address the sufficiency and merit of the Exchange's statements in support of the proposal, in addition to any other comments they may wish to submit about the proposed rule change. Although there do not appear to be any issues relevant to approval or disapproval that would be facilitated by an oral presentation of views, data, and arguments, the Commission will consider, pursuant to Rule 19b-4, any request for an opportunity to make an oral presentation.[116]

Interested persons are invited to submit written data, views, and arguments regarding whether the proposal should be approved or disapproved by March 15, 2022. Any person who wishes to file a rebuttal to any other person's submission must file that rebuttal by March 29, 2022.

Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's internet comment form (*http://www.sec.gov/rules/sro.shtml*); or
- Send an email to *rule-comments@sec.gov.* Please include File No. SR–EMERALD–2022–04 on the subject line.

Paper Comments

- Send paper comments in triplicate to Secretary, Securities and Exchange Commission, 100 F Street NE, Washington, DC 20549–1090.

All submissions should refer to File Number SR–EMERALD–2022–04. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's internet website (*http://www.sec.gov/rules/sro.shtml*). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street NE, Washington, DC 20549, on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change. Persons submitting comments are cautioned that we do not redact or edit personal identifying information from comment submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR–EMERALD–2022–04 and should be submitted on or before March 15, 2022. Rebuttal comments should be submitted by March 29, 2022.

VI. Conclusion

It is therefore ordered, pursuant to Section 19(b)(3)(C) of the Act,[117] that File Numbers SR–EMERALD–2022–04 be, and hereby is, temporarily suspended. In addition, the Commission is instituting proceedings to determine whether the proposed rule change should be approved or disapproved.

[109] *See id.*

[110] *See id.*

[111] *See id.*

[112] 17 CFR 201.700(b)(3).

[113] *See id.*

[114] *See id.*

[115] *See Susquehanna Int'l Group, LLP* v. *Securities and Exchange Commission,* 866 F.3d 442, 446–47 (D.C. Cir. 2017) (rejecting the Commission's reliance on an SRO's own determinations without sufficient evidence of the basis for such determinations).

[116] 15 U.S.C. 78s(b)(2). Section 19(b)(2) of the Act grants the Commission flexibility to determine what type of proceeding—either oral or notice and opportunity for written comments—is appropriate for consideration of a particular proposal by an SRO. *See* Securities Acts Amendments of 1975, Report of the Senate Committee on Banking, Housing and Urban Affairs to Accompany S. 249, S. Rep. No. 75, 94th Cong., 1st Sess. 30 (1975).

[117] 15 U.S.C. 78s(b)(3)(C).

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[118]

J. Matthew DeLesDernier,

Assistant Secretary.

[FR Doc. 2022–03652 Filed 2–18–22; 8:45 am]

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SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–94260; File No. SR–EMERALD–2022–05]

Self-Regulatory Organizations; MIAX Emerald, LLC; Notice of Filing of a Proposed Rule Change To Amend Its Fee Schedule To Adopt a Tiered-Pricing Structure for Additional Limited Service MIAX Emerald Express Interface Ports; Suspension of and Order Instituting Proceedings To Determine Whether To Approve or Disapprove the Proposed Rule Change

February 15, 2022.

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (''Act''),[1] and Rule 19b–4 thereunder,[2] notice is hereby given that on February 1, 2022, MIAX Emerald, LLC (''MIAX Emerald'' or ''Exchange'') filed with the Securities and Exchange Commission (''Commission'') a proposed rule change as described in Items I and II below, which Items have been prepared by the Exchange. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons and is, pursuant to Section 19(b)(3)(C) of the Act, hereby: (i) Temporarily suspending the rule change; and (ii) instituting proceedings to determine whether to approve or disapprove the proposed rule change.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

The Exchange is filing a proposal to amend the MIAX Emerald Fee Schedule (the ''Fee Schedule'') to amend certain port fees.

The text of the proposed rule change is available on the Exchange's website at *http://www.miaxoptions.com/rule-filings,* at MIAX's principal office, and at the Commission's Public Reference Room.

II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the Exchange included statements concerning the purpose of and basis for the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in Item IV [sic] below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

The Exchange proposes to amend the Fee Schedule to adopt a tiered-pricing structure for additional Limited Service MIAX Emerald Express Interface (''MEI'') Ports [3] available to Market Makers.[4] The Exchange believes a tiered-pricing structure will encourage Market Makers to be more efficient and economical when determining how to connect to the Exchange. This should also enable the Exchange to better monitor and provide access to the Exchange's network to ensure sufficient capacity and headroom in the System.[5]

The Exchange initially filed the proposed fee changes on August 2, 2021, with the changes being immediately effective.[6] The First Proposed Rule Change was published for comment in the **Federal Register** on August 19, 2021.[7] The Commission received one comment letter on the First Proposed Rule Change.[8] The Exchange withdrew the First Proposed Rule Change on September 27, 2021 and resubmitted its proposal (''Second Proposed Rule Change'').[9] On September 28, 2021, the Exchange withdrew the Second Proposed Rule Change and re-submitted the proposal on September 28, 2021, with the proposed fee changes being immediately effective (''Third Proposed Rule Change'').[10] The Third Proposed Rule Change was published for comment in the **Federal Register** on October 5, 2021.[11] The Third Proposed Rule Change provided additional justification for the proposed fee changes and addressed certain points raised in the single comment letter that was submitted on the First Proposed Rule Change. The Commission received four comment letters from three separate commenters on the Third Proposed Rule Change.[12] The Commission suspended the Third Proposed Rule Change on November 22, 2021.[13] The Exchange withdrew the Third Proposed Rule Change on December 1, 2021 and submitted a revised proposal for immediate effectiveness (''Fourth Proposed Rule Change'').[14] The Fourth Proposed Rule Change meaningfully attempted to address issues or questions that have been raised by providing additional justification and explanation for the proposed fee changes and directly respond to the points raised in

[118] 17 CFR 200.30–3(a)(12), (57) and (58).

[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

[3] The MIAX Emerald Express Interface (''MEI'') is a connection to the MIAX Emerald System that enables Market Makers to submit simple and complex electronic quotes to MIAX Emerald. *See* the Definitions Section of the Fee Schedule

[4] The term ''Market Makers'' refers to Lead Market Makers (''LMMs''), Primary Lead Market Makers (''PLMMs''), and Registered Market Makers (''RMMs'') collectively. *See* the Definitions Section of the Fee Schedule and Exchange Rule 100.

[5] The term ''System'' means the automated trading system used by the Exchange for the trading of securities. *See* the Definitions Section of the Fee Schedule and Exchange Rule 100.

[6] *See* Securities Exchange Act Release No. 92662 (August 13, 2021), 86 FR 46726 (August 19, 2021) (SR–EMERALD–2021–25).

[7] *Id.*

[8] *See* Letter from Richard J. McDonald, Susquehanna International Group, LLC (''SIG''), to Vanessa Countryman, Secretary, Commission, dated September 7, 2021 (''SIG Letter 1'').

[9] *See* SR–EMERALD–2021–30.

[10] *See* Securities Exchange Act Release No. 93188 (September 29, 2021), 86 FR 55052 (October 5, 2021) (SR–EMERALD–2021–31).

[11] *Id.*

[12] *See* letters from Richard J. McDonald, SIG, to Vanessa Countryman, Secretary, Commission, dated October 1, 2021 (''SIG Letter 2'') and October 26, 2021 (''SIG Letter 3''); *and* Ellen Green, Managing Director, Equity and Options Market Structure, Securities Industry and Financial Markets Association (''SIFMA''), to Vanessa Countryman, Secretary, Commission, dated November 26, 2021 (''SIFMA Letter'').

The Exchange notes that the Healthy Markets Association (''HMA'') submitted a comment letter on a related filing to amend fees for 10Gb ULL connections, on which SIG Letters 1, 2, and 3 as well as the SIFMA Letter also commented. *See* letter from Tyler Gellasch, Executive Director, HMA (''HMA''), to Hon. Gary Gensler, Chair, Commission, dated October 29, 2021 (commenting on SR–CboeEDGA–2021–017, SR–CboeBYX–2021–020, SR–Cboe–BZX–2021–047, SR–CboeEDGX–2021–030, SR–MIAX–2021–41, SR–PEARL–2021–45, and SR–EMERALD–2021–29 and stating that ''MIAX has repeatedly filed to change its connectivity fees in a way that will materially lower costs for many users, while increasing the costs for some of its heaviest of users. These filings have been withdrawn and repeatedly refiled. *Each time, however, the filings contain significantly greater information about who is impacted and how than other filings that have been permitted to take effect without suspension*'') (*emphasis added*) (''HMA Letter'').

[13] *See* Securities Exchange Act Release No. 93644 (November 22, 2021), 86 FR 67745 (November 29, 2021).

[14] *See* Securities Exchange Act Release No. 93772 (December 14, 2021), 86 FR 71965 (December 20, 2021) (SR–EMERALD–2021–43).

SIG Letters 1, 2, and 3, as well as the SIFMA Letter submitted on the First and Second [sic] Proposed Rule Changes,[15] and feedback provided by Commission Staff during a telephone conversation on November 18, 2021 relating to the Third Proposed Rule Change. The Fourth Proposed Rule Change was published for comment in the **Federal Register** on December 20, 2021.[16] The Exchange receive no comment letters on the Fourth Proposed Rule Change. The Commission suspended the Fourth Proposed Rule Change on January 27, 2022.[17] The Exchange withdrew the Fourth Proposed Rule Change on February 1, 2022 and now submits this proposal for immediate effectiveness (''Fifth Proposed Rule Change''). This Fifth Proposed Rule Change provides additional justification and explanation for the proposed fee changes.

Additional Limited Service MEI Port Tiered-Pricing Structure

The Exchange proposes to amend the fees for additional Limited Service MEI Ports. Currently, the Exchange allocates two (2) Full Service MEI Ports[18] and two (2) Limited Service MEI Ports[19] per matching engine[20] to which each Market Maker connects. Market Makers may also request additional Limited Service MEI Ports for each matching engine to which they connect. The Full Service MEI Ports, Limited Service MEI Ports and the additional Limited Service MEI Ports all include access to the Exchange's primary and secondary data centers and its disaster recovery center. Market Makers may request additional Limited Service MEI Ports. Prior to the First Proposed Rule Change, Market Makers were assessed a $100 monthly fee for each additional Limited Service MEI Port for each matching engine.

The Exchange now proposes to move from a flat monthly fee per additional Limited Service MEI Port for each matching engine to a tiered-pricing structure for additional Limited Service MEI Ports for each matching engine under which the monthly fee would vary depending on the number of additional Limited Service MEI Ports the Market Maker elects to purchase. Specifically, the Exchange will continue to provide the first and second additional Limited Service MEI Ports for each matching engine free of charge, as described above, per the initial allocation of Limited Service MEI Ports that Market Makers receive. The Exchange now proposes the following tiered-pricing structure: (i) The third and fourth additional Limited Service MEI Ports for each matching engine will increase from the current flat monthly fee of $100 to $200 per port; (ii) the fifth and sixth additional Limited Service MEI Ports for each matching engine will increase from the current flat monthly fee of $100 to $300 per port; and (iii) the seventh to the twelfth additional Limited Service MEI Ports will increase from the current monthly flat fee of $100 to $400 per port (collectively, the ''Proposed Access Fees'').

The Exchange believes the other exchanges' port fees are a useful example of alternative approaches to providing and charging for port access and provides the below table for comparison purposes only to show how its proposed fees compare to fees currently charged by other options exchanges for similar port access. As shown by the below table, the Exchange's proposed highest tier is still less than fees charged for similar port access provided by other options exchanges.

Exchange	Type of port	Monthly fee (per port)
MIAX Emerald (as proposed)	Additional Limited Service MEI Port	1–2 ports. FREE (not changed in this proposal), 3–4 ports. $200, 5–6 ports. $300, 7–12 ports. $400.
NYSE American, LLC (''Amex'')[21]	Order/Quote Entry Port	$450.
NYSE Arca, Inc. (''Arca'')[22]	Order/Quote Entry Port	$450.
The NASDAQ Stock Market LLC (''NASDAQ'')[23].	SQF Port	1–5 ports. $1,500.00, 6–20 ports. $1,000.00, 21 or more ports. $500.

2. Statutory Basis

The Exchange believes that its proposal to amend its Fee Schedule is consistent with Section 6(b) of the Act[24] in general, and furthers the objectives of Section 6(b)(4) of the Act[25] in particular, in that it provides for the equitable allocation of reasonable dues, fees and other charges among Exchange Members and issuers and other persons using any facility or system which the Exchange operates or controls. The Exchange also believes the proposal furthers the objectives of Section 6(b)(5) of the Act[26] in that it is designed to promote just and equitable principles of trade, remove impediments to and perfect the mechanism of a free and open market and a national market system, and, in general protect investors

[15] The Exchange notes that while the HMA Letter applauds the level of disclosure the Exchange included in the First and Second [sic] Proposed Rule Changes, the HMA Letter does not raise specific issues with the First or Second [sic] Proposed Rule Changes. Rather, it references the Exchange's proposals by way of comparison to show the varying levels of transparency in exchange fees filings and recommends changes to the Commission's review process of exchange fee filings generally. Therefore, the Exchange does not feel it is necessary to address the issues raised in the HMA Letter.

[16] *See supra* note 14.

[17] *See* Securities Exchange Act Release No. 94087 (January 27, 2022) (Suspension of and Order Instituting Proceedings to Determine Whether to Approve or Disapprove Proposed Rule Changes to Amend Fee Schedules to Adopt Tiered-Pricing Structures for Additional Limited Service MIAX and MIAX Emerald Express Interface Ports).

[18] ''Full Service MEI Ports'' means a port which provides Market Makers with the ability to send Market Maker simple and complex quotes, eQuotes, and quote purge messages to the MIAX Emerald System. Full Service MEI Ports are also capable of receiving administrative information. Market Makers are limited to two Full Service MEI Ports per Matching Engine. *See* the Definitions Section of the Fee Schedule.

[19] ''Limited Service MEI Ports'' means a port which provides Market Makers with the ability to send simple and complex eQuotes and quote purge messages only, but not Market Maker Quotes, to the MIAX Emerald System. Limited Service MEI Ports are also capable of receiving administrative information. Market Makers initially receive two Limited Service MEI Ports per Matching Engine. *See* the Definitions Section of the Fee Schedule.

[20] ''Matching Engine'' means a part of the MIAX Emerald electronic system that processes options orders and trades on a symbol-by-symbol basis. Some Matching Engines will process option classes with multiple root symbols, and other Matching Engines may be dedicated to one single option root symbol (for example, options on SPY may be processed by one single Matching Engine that is dedicated only to SPY). A particular root symbol may only be assigned to a single designated Matching Engine. A particular root symbol may not be assigned to multiple Matching Engines. *See* the Definitions Section of the Fee Schedule.

[21] *See* NYSE American Options Fee Schedule, Section V.A., Port Fees.

[22] *See* NYSE Arca Options Fee Schedule, Port Fees.

[23] *See* Nasdaq Stock Market, Nasdaq Options 7 Pricing Schedule, Section 3, Nasdaq Options Market—Ports and Other Services.

[24] 15 U.S.C. 78f(b).

[25] 15 U.S.C. 78f(b)(4).

[26] 15 U.S.C. 78f(b)(5).

and the public interest and is not designed to permit unfair discrimination between customers, issuers, brokers and dealers.

On March 29, 2019, the Commission issued an Order disapproving a proposed fee change by the BOX Market LLC Options Facility to establish connectivity fees for its BOX Network (the ''BOX Order'').[27] On May 21, 2019, the Commission Staff issued guidance ''to assist the national securities exchanges and FINRA . . . in preparing Fee Filings that meet their burden to demonstrate that proposed fees are consistent with the requirements of the Securities Exchange Act.'' [28] Based on both the BOX Order and the Guidance, the Exchange believes that the Proposed Access Fees are consistent with the Act because they (i) are reasonable, equitably allocated, not unfairly discriminatory, and not an undue burden on competition; (ii) comply with the BOX Order and the Guidance; (iii) are supported by evidence (including comprehensive revenue and cost data and analysis) that they are fair and reasonable because they will not result in excessive pricing or supra-competitive profit; and (iv) utilize a cost-based justification framework that is substantially similar to a framework previously used by the Exchange, and its affiliates Miami International Securities Exchange, LLC (''MIAX'') and MIAX PEARL, LLC (''MIAX Pearl''), to amend other non-transaction fees.[29]

The Proposed Access Fees Will Not Result in a Supra-Competitive Profit

The Exchange believes that exchanges, in setting fees of all types, should meet very high standards of transparency to demonstrate why each new fee or fee amendment meets the requirements of the Act that fees be reasonable, equitably allocated, not unfairly discriminatory, and not create an undue burden on competition among market participants. The Exchange believes this high standard is especially important when an exchange imposes various access fees for market participants to access an exchange's marketplace. The Exchange deems ports to be access fees. It records these fees as part of its ''Access Fees'' revenue in its financial statements.

In the Guidance, the Commission Staff stated that, ''[a]s an initial step in assessing the reasonableness of a fee, staff considers whether the fee is constrained by significant competitive forces.'' [30] The Guidance further states that, ''. . . even where an SRO cannot demonstrate, or does not assert, that significant competitive forces constrain the fee at issue, a cost-based discussion may be an alternative basis upon which to show consistency with the Exchange Act.'' [31] In its Guidance, the Commission Staff further states that, ''[i]f an SRO seeks to support its claims that a proposed fee is fair and reasonable because it will permit recovery of the SRO's costs, or will not result in excessive pricing or supracompetitive profit, specific information, including quantitative information, should be provided to support that argument.'' [32] The Exchange does not assert that the Proposed Access Fees are constrained by competitive forces. Rather, the Exchange asserts that the Proposed Access Fees are reasonable because they will permit recovery of the Exchange's costs in providing access services to supply additional Limited Service MEI Ports and will not result in the Exchange generating a supra-competitive profit.

The Guidance defines ''supra-competitive profit'' as ''profits that exceed the profits that can be obtained in a competitive market.'' [33] The Commission Staff further states in the Guidance that ''the SRO should provide an analysis of the SRO's baseline revenues, costs, and profitability (before the proposed fee change) and the SRO's expected revenues, costs, and profitability (following the proposed fee change) for the product or service in question.'' [34] The Exchange provides this analysis below.

Based on this analysis, the Exchange believes the Proposed Access Fees are reasonable and do not result in a ''supra-competitive'' [35] profit. The Exchange believes that it is important to demonstrate that the Proposed Access Fees are based on its costs and reasonable business needs. The Exchange believes the Proposed Access Fees will allow the Exchange to offset expenses the Exchange has and will incur, and that the Exchange provides sufficient transparency (described below) into the costs and revenue underlying the Proposed Access Fees. Accordingly, the Exchange provides an analysis of its revenues, costs, and profitability associated with the Proposed Access Fees. This analysis includes information regarding its methodology for determining the costs and revenues associated with the Proposed Access Fees. As a result of this analysis, the Exchange believes the Proposed Access Fees are fair and reasonable as a form of cost recovery plus present the possibility of a reasonable return for the Exchange's aggregate costs of offering additional Limited Service MEI Port access to the Exchange.

The Proposed Access Fees are based on a cost-plus model. In determining the appropriate fees to charge, the Exchange considered its costs to provide port access, using what it believes to be a conservative methodology (*i.e.,* that strictly considers only those costs that are most clearly directly related to the provision and maintenance of additional Limited Service MEI Ports) to estimate such costs,[36] as well as the relative costs of providing and maintaining additional Limited Service MEI Ports, and set fees that are designed to cover its costs with a limited return in excess of such costs. However, as discussed more fully below, such fees may also result in the Exchange recouping less than all of its costs of providing and maintaining additional Limited Service MEI Ports because of the uncertainty of forecasting subscriber decision making with respect to firms' additional Limited Service MEI Port needs and the likely potential for increased costs to procure the third-party services described below.

To determine the Exchange's costs to provide access services associated with the Proposed Access Fees, the Exchange conducted an extensive cost review in which the Exchange analyzed nearly every expense item in the Exchange's general expense ledger to determine whether each such expense relates to the Proposed Access Fees, and, if such expense did so relate, what portion (or

[27] *See* Securities Exchange Act Release No. 85459 (March 29, 2019), 84 FR 13363 (April 4, 2019) (SR–BOX–2018–24, SR–BOX–2018–37, and SR–BOX–2019–04) (Order Disapproving Proposed Rule Changes to Amend the Fee Schedule on the BOX Market LLC Options Facility to Establish BOX Connectivity Fees for Participants and Non-Participants Who Connect to the BOX Network).

[28] *See* Staff Guidance on SRO Rule Filings Relating to Fees (May 21, 2019), at *https://www.sec.gov/tm/staff-guidance-sro-rule-filings-fees* (the ''Guidance'').

[29] *See* Securities Exchange Act Release Nos. 90981 (January 25, 2021), 86 FR 7582 (January 29, 2021) (SR–PEARL–2021–01) (proposal to increase connectivity fees); 90980 (January 25, 2021), 86 FR 7602 (January 29, 2021) (SR–MIAX–2021–02) (proposal to increase connectivity fees).

[30] *See* Guidance, *supra* note 28.

[31] *Id.*

[32] *Id.*

[33] *Id.*

[34] *Id.*

[35] *Id.*

[36] For example, the Exchange only included the costs associated with providing and supporting additional Limited Service MEI Ports and excluded from its cost calculations any cost not directly associated with providing and maintaining such ports. Thus, the Exchange notes that this methodology underestimates the total costs of providing and maintaining additional Limited Service MEI Ports.

percentage) of such expense actually supports access services associated with the Proposed Access Fees.

The Exchange also provides detailed information regarding the Exchange's cost allocation methodology—namely, information that explains the Exchange's rationale for determining that it was reasonable to allocate certain expenses described in this filing towards the cost to the Exchange to provide the access services associated with the Proposed Access Fees. The Exchange conducted a thorough internal analysis to determine the portion (or percentage) of each expense to allocate to the support of access services associated with the Proposed Access Fees. This analysis [37] included discussions with each Exchange department head to determine the expenses that support access services associated with the Proposed Access Fees. This included numerous meetings between the Exchange's Chief Information Officer, Chief Financial Officer, Head of Strategic Planning and Operations, Chief Technology Officer, various members of the Legal Department, and other group leaders. The Exchange reviewed each individual expense to determine if such expense was related to the Proposed Access Fees. Once the expenses were identified, the Exchange department heads, with the assistance of our internal finance department, reviewed such expenses holistically on an Exchange-wide level to determine what portion of that expense supports providing access services for the Proposed Access Fees. The sum of all such portions of expenses represents the total cost to the Exchange to provide access services associated with the Proposed Access Fees. For the avoidance of doubt, no expense amount was allocated twice.

The internal cost analysis conducted by the Exchange is a proprietary process that is designed to make a fair and reasonable assessment of costs and resources allocated to support the provision of access services associated with the Proposed Access Fees. The Exchange acknowledges that this assessment can only capture a moment in time and that costs and resource allocations may change. That is why the Exchange has historically, and on an ongoing basis, periodically revisits its costs and resource allocations to ensure it is appropriately allocating resources to properly provide services to the Exchange's constituents. Any requirement that an exchange should conduct a periodic re-evaluation on a set timeline of its cost justification and amend its fees accordingly should be established by the Commission holistically, applied to all exchanges and not just pending fee proposals such as this filing. In order to be fairly applied, such a mandate should be applied to existing access fees as well.

In accordance with the Guidance, the Exchange has provided sufficient detail to support a finding that the proposed fees are consistent with the Exchange Act. The proposal includes a detailed description of the Exchange's costs and how the Exchange determined to allocate those costs related to the proposed fees. In fact, the detail and analysis provided in this proposed rule change far exceed the level of disclosure provided in other exchange fee filings that have not been suspended by the Commission during its 60-day suspension period. A finding that this proposed rule change is inconsistent with the Exchange Act would run contrary to the Commission Staff's treatment of other recent exchange fee proposals that have not been suspended and remain in effect today.[38] For example, a proposed fee filing that closely resembles the Exchange's current filing was submitted in 2020 by the Cboe Exchange, Inc. (''Cboe'') and increased fees for Cboe's 10Gb connections.[39] This filing was submitted on September 2, 2020, nearly 15 months after the Staff's Guidance was issued. In that filing, the Cboe stated that the ''proposed changes were not designed with the objective to generate an overall increase in access fee revenue.'' [40] This filing provided no cost based data to support its assertion that the proposal was intended to be revenue neutral. Among other things, Cboe did not provide a description of the costs underlying its provision of 10Gb connections to show that this particular fee did not generate a supra-competitive profit or describe how any potential profit may be offset by increased costs associated with another fee included in its proposal. This filing, nonetheless, was not suspended by the Commission and remains in effect today.

The Exchange believes exchanges, like all businesses, should be provided flexibility when allocating costs and resources they deem necessary to operate their business, including providing market data and access services. The Exchange notes that costs and resource allocations may vary from business to business and, likewise, costs and resource allocations may differ from exchange to exchange when it comes to providing market data and access services. It is a business decision that must be evaluated by each exchange as to how to allocate internal resources and what costs to incur internally or via third parties that it may deem necessary to support its business and its provision of market data and access services to market participants. An exchange's costs may also vary based on fees charged by third parties and periodic increases to those fees that may be outside of the control of an exchange.

To determine the Exchange's projected revenue associated with the Proposed Access Fees, the Exchange analyzed the number of Market Makers currently utilizing additional Limited Service MEI Ports and used a recent monthly billing cycle representative of 2021 monthly revenue. The Exchange also provided its baseline by analyzing July 2021, the monthly billing cycle prior to the Proposed Access Fees going into effect, and compared it to its expenses for that month.[41] As discussed below, the Exchange does not believe it is appropriate to factor into its analysis future revenue growth or decline into its projections for purposes of these calculations, given the uncertainty of such projections due to the continually changing access needs of market participants and potential increase in internal and third party expenses. The Exchange is presenting its revenue and expense associated with the Proposed Access Fees in this filing in a manner that is consistent with how the Exchange presents its revenue and expense in its Audited Unconsolidated Financial Statements. The Exchange's most recent Audited Unconsolidated Financial Statement is for 2020. However, since the revenue and

[37] A description of the Exchange's methodology for determining the portion (or percentage) of each expense to allocate to the Proposed Access Fee is being provide in response to comments from SIG and SIFMA. *See* SIG Letter 3 *and* SIFMA Letter, *supra* note 12.

[38] *See, e.g.,* Securities Exchange Act Release Nos. 91339 (March 17, 2021), 86 FR 15524 (March 23, 2021) (SR–CboeBZX–2021–020) (increasing fees for a market data product while not providing a cost based justification for the increase); 93293 (October 21, 2021), 86 FR 57716 (October 18, 2021) (SR–PHLX–2021–058) (increasing fees for historical market data while not providing a cost based justification for the increase); 92970 (September 14, 2021), 86 FR 52261 (September 20, 2021) (SR–CboeBZX–2021–047) (adopting fees for a market data related product while not providing a cost based justification for the fees); and 89826 (September 10, 2021), 85 FR 57900 (September 16, 2021) (SR–CBOE–2020–086) (increasing connectivity fees without including a cost based justification).

[39] *See* Securities Exchange Act Release No. 89826 (September 10, 2020), 85 FR 57900 (September 16, 2020) (SR–CBOE–2020–086) (increasing connectivity fees without including a cost based justification).

[40] *See id.* at 57909.

[41] *Id.*

expense associated with the Proposed Access Fees were not in place in 2020 or for the first seven months of 2021, the Exchange believes its 2020 Audited Unconsolidated Financial Statement is not representative of its current total annualized revenue and costs associated with the Proposed Access Fees. Accordingly, the Exchange believes it is more appropriate to analyze the Proposed Access Fees utilizing its 2021 revenue and costs, as described herein, which utilize the same presentation methodology as set forth in the Exchange's previously-issued Audited Unconsolidated Financial Statements. Based on this analysis, the Exchange believes that the Proposed Access Fees are reasonable because they will allow the Exchange to recover its costs associated with providing access services related to the Proposed Access Fees and not result in excessive pricing or supra-competitive profit.

As outlined in more detail below, the Exchange projects that the final annualized expense for 2021 to provide additional Limited Service MEI Ports to be approximately $880,000 per annum or an average of $73,333.33 per month. The Exchange implemented the Proposed Access Fees on August 1, 2021 in the First Proposed Rule Change. For July 2021, prior to the Proposed Access Fees, the Exchange Members and non-Members purchased a total of 625 additional Limited Service MEI Ports for which the Exchange charged approximately $62,500. This resulted in a loss of $10,833.33 for that month (a loss margin of approximately 17.3%). For the month of November 2021, which includes the tiered rates for additional Limited Service MEI Ports for the Proposed Access Fees, Exchange Members and non-Members increased the number of additional Limited Service MEI Ports they purchased resulting in a total of 860 additional Limited Service MEI Ports for which the Exchange charged approximately $216,600 for that month. This resulted in a profit of $143,266.67 for that month (a profit margin of approximately 66%, after experiencing monthly losses prior to the Proposed Access Fees. The Exchange believes that the Proposed Access Fees are reasonable because they are designed to generate a revenue per-month after experiencing monthly losses prior to the Proposed Access Fees. The Exchange cautions that this profit margin is likely to fluctuate from month to month based on the uncertainty of predicting how many ports may be purchased from month to month as Members and non-Members are able to add and drop ports at any time based on their own business decisions. This profit margin may also decrease due to the significant inflationary pressure on capital items that the Exchange needs to purchase to maintain the Exchange's technology and systems.[42] The Exchange has been subject to price increases upwards of 30% during the past year on network equipment due to supply chain shortages. This, in turn, results in higher overall costs for ongoing system maintenance, but also to purchase the items necessary to ensure ongoing system resiliency, performance, and determinism. These costs are expected to continue to go up as the U.S. economy continues to struggle with supply chain and inflation related issues.

Further, the Exchange chose to provide additional Limited Service MEI Ports at a discounted price to attract order flow and encourage market participants to experience the determinism and resiliency of the Exchange's trading systems. This resulted in the Exchange forgoing revenue it could have generated from assessing higher fees. The Exchange could have sought to charge higher fees at the outset, but that could have served to discourage participation on the Exchange. Instead, the Exchange chose to provide a low cost exchange alternative to the options industry which resulted in lower initial revenues, or in this case, a monthly loss. The Exchange is now trying to amend its fee structure to enable it to continue to maintain and improve its overall market and systems while also providing a highly reliable and deterministic trading system to the marketplace.

As mentioned above, the Exchange projects that its annualized expense for 2021 to provide additional Limited Service MEI Ports to be approximately $880,000 per annum or an average of $73,333.33 per month and that these costs are expected to increase not only due to anticipated significant inflationary pressure, but also periodic fee increases by third parties.[43] The Exchange notes that there are material costs associated with providing the infrastructure and headcount to fully-support access to the Exchange. The Exchange incurs technology expense related to establishing and maintaining Information Security services, enhanced network monitoring and customer reporting, as well as Regulation SCI mandated processes, associated with its network technology. While some of the expense is fixed, much of the expense is not fixed, and thus increases the cost to the Exchange to provide access services associated with the Proposed Access Fees. For example, new Members to the Exchange may require the purchase of additional hardware to support those Members as well as enhanced monitoring and reporting of customer performance that the Exchange and its affiliates provide. Further, as the total number Members increases, the Exchange and its affiliates may need to increase their data center footprint and consume more power, resulting in increased costs charged by their third-party data center provider. Accordingly, the cost to the Exchange and its affiliates to provide access to its Members is not fixed. The Exchange believes the Proposed Access Fees are a reasonable attempt to offset a portion of the costs to the Exchange associated with providing access to its network infrastructure.

The Exchange only has four primary sources of revenue and cost recovery mechanisms to fund all of its operations: Transaction fees, access fees (which includes the Proposed Access Fees), regulatory fees, and market data fees. Accordingly, the Exchange must cover all of its expenses from these four primary sources of revenue and cost recovery mechanisms. Until recently, the Exchange has operated at a cumulative net annual loss since it launched operations in 2019.[44] This is a result of providing a low cost alternative to attract order flow and encourage market participants to experience the high determinism and resiliency of the Exchange's trading

[42] *See* ''Supply chain chaos is already hitting global growth. And it's about to get worse'', by Holly Ellyatt, CNBC, *available at https://www.cnbc.com/2021/10/18/supply-chain-chaos-is-hitting-global-growth-and-could-get-worse.html* (October 18, 2021); *and* ''There will be things that people can't get, at Christmas, White House warns'' by Jarrett Renshaw and Trevor Hunnicutt, Reuters, *available at https://www.reuters.com/world/us/americans-may-not-get-some-christmas-treats-white-house-officials-warn-2021-10-12/* (October 12, 2021).

[43] For example, on October 20, 2021, ICE Data Services announced a 3.5% price increase effective January 1, 2022 for most services. The price increase by ICE Data Services includes their SFTI network, which is relied on by a majority of market participants, including the Exchange. *See* email from ICE Data Services to the Exchange, dated October 20, 2021. The Exchange further notes that on October 22, 2019, the Exchange was notified by ICE Data Services that it was raising its fees charged to the Exchange by approximately 11% for the SFTI network.

[44] The Exchange has incurred a cumulative loss of $22 million since its inception in 2019 to 2020, the last year for which the Exchange's Form 1 data is available. *See* Exchange's Form 1/A, Application for Registration or Exemption from Registration as a National Securities Exchange, filed July 28, 2021, *available at https://sec.report/Document/9999999997-21-004557/*.

Systems. To do so, the Exchange chose to waive the fees for some non-transaction related services or provide them at a very marginal cost, which was not profitable to the Exchange. This resulted in the Exchange forgoing revenue it could have generated from assessing higher fees.

The Exchange believes that the Proposed Access Fees are fair and reasonable because they will not result in excessive pricing or supra-competitive profit, when comparing the total annual expense that the Exchange projects to incur in connection with providing these access services versus the total annual revenue that the Exchange projects to collect in connection with services associated with the Proposed Access Fees. As mentioned above, for 2021,[45] the total annual expense for providing the access services associated with the Proposed Access Fees is projected to be approximately $880,000.00, or approximately $73,333.33 per month. This projected total annual expense is comprised of the following, all of which are directly related to the access services associated with the Proposed Access Fees: (1) Third-party expense, relating to fees paid by the Exchange to third-parties for certain products and services; and (2) internal expense, relating to the internal costs of the Exchange to provide the services associated with the Proposed Access Fees.[46] As noted above, the Exchange believes it is more appropriate to analyze the Proposed Access Fees utilizing its 2021 revenue and costs, which utilize the same presentation methodology as set forth in the Exchange's previously-issued Audited Unconsolidated Financial Statements.[47] The $880,000 projected total annual expense is directly related to the access services associated with the Proposed Access Fees, and not any other product or service offered by the Exchange. It does not include general costs of operating matching engines and other trading technology. No expense amount was allocated twice.

As discussed above, the Exchange conducted an extensive cost review in which the Exchange analyzed nearly every expense item in the Exchange's general expense ledger (this includes over 150 separate and distinct expense items) to determine whether each such expense relates to the access services associated with the Proposed Access Fees, and, if such expense did so relate, what portion (or percentage) of such expense actually supports those services, and thus bears a relationship that is, ''in nature and closeness,'' directly related to those services. In performing this calculation, the Exchange considered other services and to which the expense may be applied and how much of the expense is directly and or indirectly utilized in providing those other services. The sum of all such portions of expenses represents the total cost of the Exchange to provide access services associated with the Proposed Access Fees.

External Expense Allocations

For 2021, total third-party expense, relating to fees paid by the Exchange to third-parties for certain products and services for the Exchange to be able to provide the access services associated with the Proposed Access Fees, is projected to be $0.05 million. This includes, but is not limited to, a portion of the fees paid to: (1) Equinix, for data center services, for the primary, secondary, and disaster recovery locations of the Exchange's trading system infrastructure; (2) Zayo Group Holdings, Inc. (''Zayo'') for network services (fiber and bandwidth products and services) linking the Exchange's office locations in Princeton, New Jersey and Miami, Florida, to all data center locations; (3) Secure Financial Transaction Infrastructure (''SFTI''),[48] which supports connectivity and feeds for the entire U.S. options industry; (4) various other services providers (including Thompson Reuters, NYSE, Nasdaq, and Internap), which provide content, connectivity services, and infrastructure services for critical components of options connectivity and network services; and (5) various other hardware and software providers (including Dell and Cisco, which support the production environment in which Members connect to the network to trade, receive market data, etc.). For clarity, only a portion of all fees paid to such third-parties is included in the third-party expense herein, and no expense amount is allocated twice. Accordingly, the Exchange does not allocate its entire information technology and communication costs to the access services associated with the Proposed Access Fees.

For clarity, the Exchange took a conservative approach in determining the expense and the percentage of that expense to be allocated to providing access services in connection with the Proposed Access Fees. Only a portion of all fees paid to such third-parties is included in the third-party expenses described herein, and no expense amount is allocated twice. Accordingly, the Exchange does not allocate its entire information technology and communication costs to the access services associated with the Proposed Access Fees. Further, the Exchange notes that, with respect to the expenses included herein, those expenses only cover the MIAX Emerald market; expenses associated with MIAX Pearl for its options and equities markets and MIAX, are accounted for separately and are not included within the scope of this filing. As noted above, the percentage allocations used in this proposed rule change may differ from past filings from the Exchange or its affiliates due to, among other things, changes in expenses charged by third-parties, adjustments to internal resource allocations, and different system architecture of the Exchange as compared to its affiliates. Further, as part its ongoing assessment of costs and expenses, the Exchange recently conducted a periodic thorough review of its expenses and resource allocations which, in turn, resulted in a revised percentage allocations in this filing.

The Exchange believes it is reasonable to allocate such third-party expense described above towards the total cost to the Exchange to provide the access services associated with the Proposed Access Fees. In particular, the Exchange believes it is reasonable to allocate the identified portion of the Equinix expense because Equinix operates the data centers (primary, secondary, and disaster recovery) that host the Exchange's network infrastructure. This includes, among other things, the necessary storage space, which

[45] The Exchange has not yet finalized its 2021 year end results.

[46] The percentage allocations used in this proposed rule change may differ from past filings from the Exchange or its affiliates due to, among other things, changes in expenses charged by third-parties, adjustments to internal resource allocations, and different system architecture of the Exchange as compared to its affiliates.

[47] For example, the Exchange previously noted that all third-party expense described in its prior fee filing was contained in the information technology and communication costs line item under the section titled ''Operating Expenses Incurred Directly or Allocated From Parent,'' in the Exchange's 2019 Form 1 Amendment containing its financial statements for 2018. *See* Securities Exchange Act Release No. 87877 (December 31, 2019), 85 FR 738 (January 7, 2020) (SR–EMERALD–2019–39). Accordingly, the third-party expense described in this filing is attributed to the same line item for the Exchange's 2021 Form 1 Amendment, which will be filed in 2022.

[48] In fact, on October 22, 2019, the Exchange was notified by SFTI that it is again raising its fees charged to the Exchange by approximately 11%, without having to show that such fee change complies with the Act by being reasonable, equitably allocated, and not unfairly discriminatory. It is unfathomable to the Exchange that, given the critical nature of the infrastructure services provided by SFTI, that its fees are not required to be rule-filed with the Commission pursuant to Section 19(b)(1) of the Act and Rule 19b–4 thereunder. *See* 15 U.S.C. 78s(b)(1) and 17 CFR 240.19b–4, respectively.

continues to expand and increase in cost, power to operate the network infrastructure, and cooling apparatuses to ensure the Exchange's network infrastructure maintains stability. Without these services from Equinix, the Exchange would not be able to operate and support the network and provide the access services associated with the Proposed Access Fees to its Members and their customers. The Exchange did not allocate all of the Equinix expense toward the cost of providing the access services associated with the Proposed Access Fees, only that portion which the Exchange identified as being specifically mapped to providing the access services associated with the Proposed Access Fees. According to the Exchange's calculations, it allocated approximately 2.05% of the total applicable Equinix expense to providing the access services associated with the Proposed Access Fees. The Exchange believes this allocation is reasonable because it represents the Exchange's actual cost to provide the access services associated with the Proposed Access Fees, and not any other service, as supported by its cost review.[49]

The Exchange believes it is reasonable to allocate the identified portion of the Zayo expense because Zayo provides the internet, fiber and bandwidth connections with respect to the network, linking the Exchange with its affiliates, MIAX Pearl and MIAX, as well as the data center and disaster recovery locations. As such, all of the trade data, including the billions of messages each day per exchange, flow through Zayo's infrastructure over the Exchange's network. Without these services from Zayo, the Exchange would not be able to operate and support the network and provide the access services associated with the Proposed Access Fees. The Exchange did not allocate all of the Zayo expense toward the cost of providing the access services associated with the Proposed Access Fees, only the portion which the Exchange identified as being specifically mapped to providing the Proposed Access Fees. According to the Exchange's calculations, it allocated approximately 1.64% of the total applicable Zayo expense to providing the access services associated with the Proposed Access Fees. The Exchange believes this allocation is reasonable because it represents the Exchange's actual cost to provide the access services associated with the Proposed Access Fees, and not any other service, as supported by its cost review.[50]

The Exchange believes it is reasonable to allocate the identified portions of the SFTI expense and various other service providers' (including Thompson Reuters, NYSE, Nasdaq, and Internap) expense because those entities provide connectivity and feeds for the entire U.S. options industry, as well as the content, connectivity services, and infrastructure services for critical components of the network. Without these services from SFTI and various other service providers, the Exchange would not be able to operate and support the network and provide access to its Members and their customers. The Exchange did not allocate all of the SFTI and other service providers' expense toward the cost of providing the access services associated with the Proposed Access Fees, only the portions which the Exchange identified as being specifically mapped to providing the access services associated with the Proposed Access Fees. According to the Exchange's calculations, it allocated approximately 2.05% of the total applicable SFTI and other service providers' expense to providing the access services associated with the Proposed Access Fees. The Exchange believes this allocation is reasonable because it represents the Exchange's actual cost to provide the access services associated with the Proposed Access Fees.[51]

The Exchange believes it is reasonable to allocate the identified portion of the other hardware and software provider expense because this includes costs for dedicated hardware licenses for switches and servers, as well as dedicated software licenses for security monitoring and reporting across the network. Without this hardware and software, the Exchange would not be able to operate and support the network and provide access to its Members and their customers. The Exchange did not allocate all of the hardware and software provider expense toward the cost of providing the access services associated with the Proposed Access Fees, only the portions which the Exchange identified as being specifically mapped to providing the access services associated with the Proposed Access Fees. According to the Exchange's calculations, it allocated approximately 1.23% of the total applicable hardware and software provider expense to providing the access services associated with the Proposed Access Fees. The Exchange believes this allocation is reasonable because it represents the Exchange's actual cost to provide the access services associated with the Proposed Access Fees.[52]

Internal Expense Allocations

For 2021, total projected internal expense, relating to the Exchange providing the access services associated with the Proposed Access Fees, is projected to be $0.83 million. This includes, but is not limited to, costs associated with: (1) Employee compensation and benefits for full-time employees that support the access services associated with the Proposed Access Fees, including staff in network operations, trading operations, development, system operations, and business that support those employees and functions (including an increase as a result of the higher determinism project); (2) depreciation and amortization of hardware and software used to provide the access services associated with the Proposed Access Fees, including equipment, servers, cabling, purchased software and internally developed software used in the production environment to support the network for trading; and (3) occupancy costs for leased office space for staff that provide the access services associated with the Proposed Access Fees. The breakdown of these costs is more fully-described below.

For clarity, and as stated above, the Exchange took a conservative approach in determining the expense and the percentage of that expense to be allocated to providing access services in connection with the Proposed Access Fees. Only a portion of all such internal expenses are included in the internal expense herein, and no expense amount is allocated twice. Accordingly, the Exchange does not allocate its entire costs contained in those items to the access services associated with the Proposed Access Fees. This may result in the Exchange under allocating an expense to the provision of access services in connection with the Proposed Access Fees and such expenses may actually be higher or increase above what the Exchange utilizes within this proposal. Further, as part its ongoing assessment of costs and expenses (described above), the Exchange recently conducted a periodic

[49] As noted above, the percentage allocations used in this proposed rule change may differ from past filings from the Exchange or its affiliates due to, among other things, changes in expenses charged by third-parties, adjustments to internal resource allocations, and different system architecture of the Exchange as compared to its affiliates. Again, as part its ongoing assessment of costs and expenses, the Exchange recently conducted a periodic thorough review of its expenses and resource allocations which, in turn, resulted in a revised percentage allocations in this filing.

[50] *Id.*

[51] *Id.*

[52] *Id.*

thorough review of its expenses and resource allocations which, in turn, resulted in a revised percentage allocations in this filing.

The Exchange believes it is reasonable to allocate such internal expense described above towards the total cost to the Exchange to provide the access services associated with the Proposed Access Fees. In particular, the Exchange's employee compensation and benefits expense relating to providing the access services associated with the Proposed Access Fees is projected to be approximately $0.76 million, which is only a portion of the $9.74 million total projected expense for employee compensation and benefits. The Exchange believes it is reasonable to allocate the identified portion of such expense because this includes the time spent by employees of several departments, including Technology, Back Office, Systems Operations, Networking, Business Strategy Development (who create the business requirement documents that the Technology staff use to develop network features and enhancements), and Trade Operations. As part of the extensive cost review conducted by the Exchange, the Exchange reviewed the amount of time spent by each employee on matters relating to the provision of access services associated with the Proposed Access Fees. Without these employees, the Exchange would not be able to provide the access services associated with the Proposed Access Fees to its Members and their customers. The Exchange did not allocate all of the employee compensation and benefits expense toward the cost of the access services associated with the Proposed Access Fees, only the portion which the Exchange identified as being specifically mapped to providing the access services associated with the Proposed Access Fees. According to the Exchange's calculations, it allocated approximately 7.81% of the total applicable employee compensation and benefits expense to providing the access services associated with the Proposed Access Fees. The Exchange believes this allocation is reasonable because it represents the Exchange's actual cost to provide the access services associated with the Proposed Access Fees, and not any other service, as supported by its cost review.[53]

The Exchange's depreciation and amortization expense relating to providing the services associated with the Proposed Access Fees is projected to be $0.06 million, which is only a portion of the $3.13 million total projected expense for depreciation and amortization. The Exchange believes it is reasonable to allocate the identified portion of such expense because such expense includes the actual cost of the computer equipment, such as dedicated servers, computers, laptops, monitors, information security appliances and storage, and network switching infrastructure equipment, including switches and taps that were purchased to operate and support the network and provide the access services associated with the Proposed Access Fees. Without this equipment, the Exchange would not be able to operate the network and provide the access services associated with the Proposed Access Fees to its Members and their customers. The Exchange did not allocate all of the depreciation and amortization expense toward the cost of providing the access services associated with the Proposed Access Fees, only the portion which the Exchange identified as being specifically mapped to providing the access services associated with the Proposed Access Fees. According to the Exchange's calculations, it allocated approximately 1.92% of the total applicable depreciation and amortization expense to providing the access services associated with the Proposed Access Fees, as these access services would not be possible without relying on such. The Exchange believes this allocation is reasonable because it represents the Exchange's actual cost to provide the access services associated with the Proposed Access Fees, and not any other service, as supported by its cost review.[54]

The Exchange's occupancy expense relating to providing the services associated with the Proposed Access Fees is projected to be $0.01 million, which is only a portion of the $0.52 million total projected expense for occupancy. The Exchange believes it is reasonable to allocate the identified portion of such expense because such expense represents the portion of the Exchange's cost to rent and maintain a physical location for the Exchange's staff who operate and support the network, including providing the access services associated with the Proposed Access Fees. This amount consists primarily of rent for the Exchange's Princeton, NJ office, as well as various related costs, such as physical security, property management fees, property taxes, and utilities. The Exchange operates its Network Operations Center (''NOC'') and Security Operations Center (''SOC'') from its Princeton, New Jersey office location. A centralized office space is required to house the staff that operates and supports the network. The Exchange currently has approximately 200 employees. Approximately two-thirds of the Exchange's staff are in the Technology department, and the majority of those staff have some role in the operation and performance of the access services associated with the Proposed Access Fees. Accordingly, the Exchange believes it is reasonable to allocate the identified portion of its occupancy expense because such amount represents the Exchange's actual cost to house the equipment and personnel who operate and support the Exchange's network infrastructure and the access services associated with the Proposed Access Fees. The Exchange did not allocate all of the occupancy expense toward the cost of providing the access services associated with the Proposed Access Fees, only the portion which the Exchange identified as being specifically mapped to operating and supporting the network. According to the Exchange's calculations, it allocated approximately 1.93% of the total applicable occupancy expense to providing the access services associated with the Proposed Access Fees. The Exchange believes this allocation is reasonable because it represents the Exchange's cost to provide the access services associated with the Proposed Access Fees, and not any other service, as supported by its cost review.[55]

The Exchange notes that a material portion of its total overall expense is allocated to the provision of access services (including connectivity, ports, and trading permits). The Exchange believes this is reasonable and in line, as the Exchange operates a technology-based business that differentiates itself from its competitors based on its more deterministic and resilient trading systems that rely on access to a high performance network, resulting in significant technology expense. Over two-thirds of Exchange staff are technology-related employees. The majority of the Exchange's expense is technology-based. As described above, the Exchange has only four primary sources of fees to recover their costs; thus, the Exchange believes it is reasonable to allocate a material portion of its total overall expense towards access fees.

Based on the above, the Exchange believes that its provision of access services associated with the Proposed Access Fees will not result in excessive pricing or supra-competitive profit. As discussed above, the Exchange projects

[53] *Id.*

[54] *Id.*

[55] *Id.*

that its annualized expense for 2021 to provide the access services associated with the Proposed Access Fees to be approximately $880,000 per annum or an average of $73,333.33 per month. The Exchange implemented the Proposed Access Fees on August 1, 2021 in the First Proposed Rule Change. For July 2021, prior to the Proposed Access Fees, the Exchange Members and non-Members purchased a total of 625 additional Limited Service MEI Ports for which the Exchange charged approximately $62,500. This resulted in a loss of $10,833.33 for that month (a loss margin of approximately 17.3%). For the month of November 2021, which includes the tiered rates for additional Limited Service MEI Ports for the Proposed Access Fees, Exchange Members and non-Members increased the number of additional Limited Service MEI Ports they purchased resulting in a total of 860 additional Limited Service MEI Ports for which the Exchange charged approximately $216,600 for that month. This resulted in a profit of $143,266.67 for that month (a profit margin of approximately 66%), after experiencing monthly losses prior to the Proposed Access Fees. The Exchange believes that the Proposed Access Fees are reasonable because they are designed to generate a revenue per-month after experiencing monthly losses prior to the Proposed Access Fees. The Exchange believes this profit margin will allow it to begin to recoup its expenses and continue to invest in its technology infrastructure. Therefore, the Exchange also believes that this proposed profit margin increase is reasonable because it represents a reasonable rate of return.

Again, the Exchange cautions that this profit margin may fluctuate from month to month based in the uncertainty of predicting how many ports may be purchased from month to month as Members and non-Members are free to add and drop ports at any time based on their own business decisions. Notwithstanding that the revenue (and profit margin) may vary from month to month due to changes in ports and to changes to the Exchange's expenses, the number of ports has not materially changed over the previous months. Consequently, the Exchange believes that the months it has used as a baseline to perform its assessment are representative of reasonably anticipated costs and expenses. This profit margin may also decrease due to the significant inflationary pressure on capital items that it needs to purchase to maintain the Exchange's technology and systems.[56] Accordingly, the Exchange believes its total projected revenue for the providing the access services associated with the Proposed Access Fees will not result in excessive pricing or supra-competitive profit.

The Exchange believes that conducting the above analysis on a per month basis is reasonable as the revenue generated from access services subject to the proposed fee generally remains static from month to month. The Exchange also conducted the above analysis on a per month basis to comply with the Commission Staff's Guidance, which requires a baseline analysis to assist in determining whether the proposal generates a supra-competitive profit. This monthly analysis was also provided in response to comment received on prior submissions of this proposed rule change.

The Exchange reiterates that it only has four primary sources of revenue and cost recovery mechanisms: Transaction fees, access fees (which includes the Proposed Access Fees), regulatory fees, and market data fees. Accordingly, the Exchange must cover all of its expenses from these four primary sources of revenue and cost recovery mechanisms. As a result, each of these fees cannot be ''flat'' and cover only the expenses directly related to the fee that is charged. The above revenue and associated profit margin therefore are not solely intended to cover the costs associated with providing access services subject to the Proposed Access Fees.

The Exchange believes it is reasonable, equitable and not unfairly discriminatory to allocate the respective percentages of each expense category described above towards the total cost to the Exchange of operating and supporting the network, including providing the access services associated with the Proposed Access Fees because the Exchange performed a line-by-line item analysis of nearly every expense of the Exchange, and has determined the expenses that directly relate to providing access to the Exchange. Further, the Exchange notes that, without the specific third-party and internal expense items listed above, the Exchange would not be able to provide the access services associated with the Proposed Access Fees to its Members and their customers. Each of these expense items, including physical hardware, software, employee compensation and benefits, occupancy costs, and the depreciation and amortization of equipment, have been identified through a line-by-line item analysis to be integral to providing access services. The Proposed Access Fees are intended to recover the costs of providing access to the Exchange's System. Accordingly, the Exchange believes that the Proposed Access Fees are fair and reasonable because they do not result in excessive pricing or supra-competitive profit, when comparing the actual costs to the Exchange versus the projected annual revenue from the Proposed Access Fees.

The Proposed Tiered-Pricing Structure Is Not Unfairly Discriminatory and Provides for the Equitable Allocation of Fees, Dues, and Other Charges

The Exchange believes the proposed tiered-pricing structure is reasonable, fair, equitable, and not unfairly discriminatory because it will apply to all Members and non-Members in the same manner based on the amount of Limited Service MEI Ports they require based on their own business decisions and usage of Exchange resources. All similarly situated Members and non-Members would be subject to the same fees. The fees do not depend on any distinction between Members and non-Members because they are solely determined by the individual Members' or non-Members' business needs and its impact on Exchange resources.

The proposed tiered-pricing structure is not unfairly discriminatory and provides for the equitable allocation of fees, dues, and other charges because it is designed to encourage Members and non-Members to be more efficient and economical when determining how to connect to the Exchange and the amount of the fees are based on the number of ports a Market Maker utilizes. Charging an incrementally higher fee to a Market Maker that utilizes numerous ports is directly related to the increased costs the Exchange incurs in providing and maintaining those additional ports. The proposed tiered pricing structure should also enable the Exchange to better monitor and provide access to the Exchange's network to ensure sufficient capacity and headroom in the System while still providing the first and second additional Limited Service MEI Ports for each matching engine free of charge.

To achieve a consistent, premium network performance, the Exchange must build out and continue to maintain a network that has the capacity to handle the message rate requirements of not only firms that consume minimal Exchange access resources, but also those firms that most heavily consume Exchange access resources, network consumers, and purchasers of Limited Service MEI Ports. Limited Service MEI Ports is not an unlimited resource as the Exchange needs to purchase additional

[56] *See supra* note 42.

equipment to satisfy requests for additional ports. The Exchange also needs to provide personnel to set up new ports, service requests related to adding new and/or deleting existing ports, respond to performance queries, and to maintain those ports on behalf of Members and non-Members. Also, those firms that utilize additional Limited Service MEI Ports typically generate a disproportionate amount of messages and order traffic, usually billions per day across the Exchange. These billions of messages per day consume the Exchange's resources and significantly contribute to the overall network access expense for storage and network transport capabilities. The Exchange also has to purchase additional storage capacity on an ongoing basis to ensure it has sufficient capacity to store these messages as part of it surveillance program and to satisfy its record keeping requirements under the Exchange Act.[57] Thus, as the number of ports an entity has increases, certain other costs incurred by the Exchange that are correlated to, though not directly affected by, port costs (*e.g.,* storage costs, surveillance costs, service expenses) also increase.

The Exchange sought to design the proposed tiered-pricing structure to set the amount of the fee to relate to the number of ports a firm purchases. The Exchange notes that Limited Service MEI Ports are primarily utilized by firms that engage in advanced trading strategies and typically request multiple Limited Service MEI Ports, beyond the two per matching engine that are currently provided free of charge. Accordingly, the firms engaged in advanced trading strategies generate higher costs by utilizing more of the Exchange's resources. Those firms purchase higher amounts of Limited Service MEI Ports tend to have specific business oriented market making and trading strategies, as opposed to firms engaging solely in order routing as part of their best-execution obligations.

The use of such additional Limited Service MEI Ports is a voluntary business decision of each Market Maker. Additional Limited Service MEI Ports are primarily used by Market Makers seeking to remove liquidity and, for competitive reasons, a Market Maker may choose to utilize numerous ports in an attempt to access the market quicker by using one port that may have less latency. The more ports purchased by a Market Maker likely results in greater expenditure of Exchange resources and increased cost to the Exchange. With this in mind, the Exchange will continue to provide the first and second additional Limited Service MEI Ports free of charge. The Exchange notes that firms that primarily route orders seeking best-execution generally do not utilize additional Limited Service MEI Ports. Those firms also generally send less orders and messages over those connections, resulting in less strain on Exchange resources.

On a similar note, the Exchange proposes to increase the fee for those firms that purchase more ports resulting in greater expenditure of Exchange resources and increased cost to the Exchange. The Exchange notes that these firms that purchase numerous additional Limited Service MEI Ports essentially do so for competitive reasons amongst themselves and choose to utilize numerous ports based on their business needs and desire to attempt to access the market quicker by using the connection with the least amount of latency. These firms are generally engaged in sending liquidity removing orders to the Exchange and seek to add more ports so they can access resting liquidity ahead of their competitors. For instance, a Member may have just sent numerous messages and/or orders over one or more of their additional Limited Service MEI Ports that are in queue to be processed. That same Member then seeks to enter an order to remove liquidity from the Exchange's Book. That Member may choose to send that order over one or more of their other additional Limited Service MEI Ports with less message and/or order traffic to ensure that their liquidity taking order accesses the Exchange quicker because that connection's queue is shorter. These firms also tend to frequently add and drop ports mid-month to determine which ports have the least latency, which results in increased costs to the Exchange to constantly make changes in the data center.

The firms that engage in the above-described liquidity removing and advanced trading strategies typically require multiple ports and, therefore, generate higher costs by utilizing more of the Exchange's resources. Those firms may also conduct other latency measurements over their ports and drop and simultaneously add ports mid-month based on their own assessment of their performance. This results in Exchange staff processing such requests, potentially purchasing additional equipment, and performing the necessary network engineering to replace those ports in the data center. Therefore, the Exchange believes it is equitable for these firms to experience increased port costs based on their disproportionate pull on Exchange resources to provide the additional port access.

In addition, the proposed tiered-pricing structure is equitable because it is designed to encourage Members and non-Members to be more efficient and economical when determining how to connect to the Exchange. Section 6(b)(5) of the Exchange Act requires the Exchange to provide access on terms that are not unfairly discriminatory.[58] As stated above, Additional Limited Service MEI Ports are not an unlimited resource and the Exchange's network is limited in the amount of ports it can provide. However, the Exchange must accommodate requests for additional Limited Service MEI Ports and access to the Exchange's System to ensure that the Exchange is able to provide access on non-discriminatory terms and ensure sufficient capacity and headroom in the System. To accommodate requests for additional Limited Service MEI Ports on top of current network capacity constraints, requires that the Exchange to purchase additional equipment to satisfy these requests. The Exchange also needs to provide personnel to set up new ports and to maintain those ports on behalf of Members and non-Members. The proposed tiered-pricing structure is equitable because it is designed to encourage Market Makers to be more efficient and economical in selecting the amount of additional Limited Service MEI Ports they request while balancing that against the Exchange's increased expenses when expanding its network to accommodate additional Limited Service MEI Ports.

The Proposed Fees Are Reasonable When Compared to the Fees of Other Options Exchanges With Similar Market Share

The Exchange does not have visibility into other equities exchanges' costs to provide port access or their fee markup over those costs, and therefore cannot use other exchange's port fees as a benchmark to determine a reasonable markup over the costs of providing port access. Nevertheless, the Exchange believes the other exchange's port fees are a useful example of alternative approaches to providing and charging for port access. To that end, the Exchange believes the proposed tiered-pricing structure for Limited Service MEI Ports is reasonable because the proposed highest tier is still less than fees charged for similar port access provided by other options exchanges

[57] 17 CFR 240.17a–1 (recordkeeping rule for national securities exchanges, national securities associations, registered clearing agencies and the Municipal Securities Rulemaking Board).

[58] 15 U.S.C. 78f(b)(5).

with comparable market shares. For example, Amex (equity options market share of 5.05% as of November 26, 2021 for the month of November) [59] and Arca (equity options market share of 14.88% as of November 26, 2021 for the month of November) [60] both charge $450 per port for order/quote entry ports 1–40 and $150 per port for ports 41 and greater,[61] all on a per matching engine basis, with Amex and Arca having 17 match engines and 19 match engines, respectively.[62] Similarly, NASDAQ (equity options market share of 8.88% as of November 23, 2021 for the month of November) [63] charges $1,500 per port for SQF ports 1–5, $1,000 per SQF port for ports 6–20, and $500 per SQF port for ports 21 and greater,[64] all on a per matching engine basis, with NASDAQ having multiple matching engines.[65] The NASDAQ SQF Interface Specification provides that PHLX/NOM/BX Options trading infrastructures may consist of multiple matching engines with each matching engine trading only a range of option underlyings. Further, the SQF infrastructure is such that the firms connect to one or more servers residing directly on the matching engine infrastructure. Since there may be multiple matching engines, firms will need to connect to each engine's infrastructure in order to establish the ability to quote the symbols handled by that engine.[66]

In the each of the above cases, the Exchange's highest tier in the proposed tiered-pricing structure is similar to or significantly lower than that of competing options exchanges with similar market share. Despite proposing lower or similar fees to that of competing options exchanges with similar market share, the Exchange believes that it provides a premium network experience to its Members and non-Members via a highly deterministic System, enhanced network monitoring and customer reporting, and a superior network infrastructure than markets with higher market shares and more expensive port alternatives. Each of the port rates in place at competing options exchanges were filed with the Commission for immediate effectiveness and remain in place today.

B. Self-Regulatory Organization's Statement on Burden on Competition

The Exchange does not believe that the proposed rule change will impose any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act.

With respect to intra-market competition, the Exchange does not believe that the proposed rule change would place certain market participants at the Exchange at a relative disadvantage compared to other market participants or affect the ability of such market participants to compete. As stated above, the Exchange does not believe its proposed pricing will impose a barrier to entry to smaller participants and notes that the proposed pricing structure is associated with relative usage of the various market participants. Firms that are primarily order routers seeking best-execution do not utilize Limited Service MEI Ports on MIAX Emerald and therefore will not pay the fees associated with the tiered-pricing structure. Rather, the fees described in the proposed tiered-pricing structure will only be allocated to Market Making firms that engage in advanced trading strategies and typically request multiple Limited Service MEI Ports, beyond the two that are free. Accordingly, the firms engaged in a Market Making business generate higher costs by utilizing more of the Exchange's resources. Those Market Making firms that purchase higher amounts of additional Limited Service MEI Ports tend to have specific business oriented market making and trading strategies, as opposed to firms engaging solely in best-execution order routing business. Additionally, the use of such additional Limited Service MEI Ports is entirely voluntary.

The Exchange also does not believe that the proposed rule change will result in any burden on inter-market competition that is not necessary or appropriate in furtherance of the purposes of the Act. As discussed above, options market participants are not forced to access all options exchanges. The Exchange operates in a highly competitive environment, and as discussed above, its ability to price access and ports is constrained by competition among exchanges and third parties. There are other options markets of which market participants may access in order to trade options. There is also a possible range of alternative strategies, including routing to the exchange through another participant or market center or accessing the Exchange indirectly. For example, there are 15 other U.S. options exchanges, which the Exchange must consider in its pricing discipline in order to compete for market participants. In this competitive environment, market participants are free to choose which competing exchange to use to satisfy their business needs. As a result, the Exchange believes this proposed rule change permits fair competition among national securities exchanges. Accordingly, the Exchange does not believe its proposed fee changes impose any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act.

Regrettably, the Exchange believes that the application of the Guidance to date has adversely affected inter-market competition by impeding the ability of smaller, low cost exchanges to adopt or increase fees for their market data and access services (including connectivity and port products and services). Since the adoption of the Guidance, and even more so recently, it has become harder, particularly for smaller, low cost exchanges, to adopt or increase fees to generate revenue necessary to invest in systems, provide innovative trading products and solutions, and improve competitive standing to the benefit of the affected exchanges' market participants. Although the Staff Guidance has served an important policy goal of improving disclosures and requiring exchanges to justify that their market data and access fee proposals are fair and reasonable, it has also negatively impacted exchanges, and particularly many smaller, low cost exchanges, that seek to adopt or increase fees despite providing enhanced disclosures and rationale to support their proposed fee changes.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others

As described above, the Exchange received one comment letter on the First Proposed Rule Change [67] and three comment letters on the Second [sic] Proposed Rule Change.[68] The Exchange responded to the comment letters in the Fourth Proposed Rule Change and repeats its response in is filing. No comment letters were received in

[59] See ''The market at a glance,'' *available at https://www.miaxoptions.com/* (last visited November 26, 2021).

[60] *See id.*

[61] *See* NYSE American Options Fee Schedule, Section V.A., Port Fees; NYSE Arca Options Fee Schedule, Port Fees.

[62] *See* NYSE Technology FAQ and Best Practices: Options, Section 5.1 (How many matching engines are used by each exchange?) (September 2020) (providing a link to an Excel file detailing the number of matching engines per options exchange).

[63] *See supra* note 59.

[64] *See* NASDAQ Stock Market, NASDAQ Options 7 Pricing Schedule, Section 3, NASDAQ Options Market—Ports and Other Services.

[65] *See* NASDAQ Specialized Quote Interface (SQF) Specification, Version 6.4 (October 2017), Section 2, Architecture (the ''NASDAQ SQF Interface Specification'').

[66] *See id.*

[67] *See supra* note 8.

[68] *See supra* note 12.

response to the Fourth Proposed Rule Change.

SIG Letter 2

SIG Letter 2 argues that the Exchange, in withdrawing the First Proposed Rule Change and refiling the Second [sic] Proposed Rule Change, ''improperly circumvent[ed] the procedural protections embedded in Exchange Act Section 19(b)(3)(C), and subvert[ed] the balance of interests upheld therein.'' [69] SIG's assertion that the Exchange's entire reason for withdrawing and refiling was to subvert the protections of the Exchange Act are entirely without merit. The Exchange withdrew the First Proposed Rule Change and replaced it with the Second [sic] Proposed Rule Change in good faith to provide additional justification and explanation for the proposed fee changes and did so in compliance with the Exchange Act. The same is true in this filing, where the Exchange withdrew the Second [sic] Proposed Rule Change and submitted this filing to provide additional justification and explanation for the proposed fee changes and directly responds to certain points raised in SIG Letters 1, 2, and 3, as well as the SIFMA Letter submitted on the First and Second [sic] Proposed Rule Changes.

As SIG well knows, exchanges are able withdraw and refile various proposals (including fee changes and other rule changes) with the Commission for a multitude of reasons, not the least of which is to address feedback and comments from market participants and Commission Staff. The Exchange is well within the bounds of the Act and the rules and regulations thereunder to withdraw a proposed rule change and replace it with a new proposed rule change in good faith and to enhance the filing to ensure it complies with the requirements of the Act.

SIG Letters 1 and 3

As an initial matter, SIG Letter 1 cites Rule 700(b)(3) of the Commission's Rules of Fair Practice which places ''the burden to demonstrate that a proposed rule change is consistent with the Act on the self-regulatory organization that proposed the rule change'' and states that a ''mere assertion that the proposed rule change is consistent with those requirements . . . is not sufficient.'' [70] SIG Letter 1's assertion that the Exchange has not met this burden is without merit, especially considering the overwhelming amounts of revenue and cost information the Exchange included in the First and Second [sic] Proposed Rule Changes and this filing.

Until recently, the Exchange operated at a net annual loss since it launched operations in 2019.[71] As stated above, the Exchange believes that exchanges in setting fees of all types should meet very high standards of transparency to demonstrate why each new fee or fee increase meets the requirements of the Act that fees be reasonable, equitably allocated, not unfairly discriminatory, and not create an undue burden on competition among market participants. The Exchange believes this high standard is especially important when an exchange imposes various access fees for market participants to access an exchange's marketplace. The Exchange believes it has achieved this standard in this filing and in the First and Second [sic] Proposed Rule Changes. Similar justifications for the proposed fee change included in the First and Second [sic] Proposed Rule Changes, but also in this filing, were previously included in similar fee changes filed by the Exchange and its affiliates, MIAX and MIAX Pearl, and SIG did not submit a comment letter on those filings.[72] Those filings were not suspended by the Commission and continue to remain in effect. The justification included in each of the prior filings was the result of numerous withdrawals and re-filings of the proposals to address comments received from Commission Staff over many months. The Exchange and its affiliates have worked diligently with Commission Staff on ensuring the justification included in past fee filings fully support an assertion that those fee changes are consistent with the Act.[73] The Exchange leveraged its past work with Commission Staff to ensure the justification provided herein and in the First and Second [sic] Proposed Rule Changes include the same level of detail (or more) as the prior fee changes that survived Commission scrutiny. The Exchange's detailed disclosures in fee filings have also been applauded by one industry group which noted, ''[the Exchange's] filings contain significantly greater information about who is impacted and how than other filings that have been permitted to take effect without suspension.'' [74] That same commenter also noted their ''worry that the Commission's process for reviewing and evaluating exchange filings may be inconsistently applied.'' [75]

Therefore, a finding by the Commission that the Exchange has not met its burden to show that the proposed fee change is consistent with the Act would be different than the Commission's treatment of similar past filings, would create further ambiguity regarding the standards exchange fee filings should satisfy, and is not warranted here.

In addition, the arguments in SIG Letter 1 do not support their claim that the Exchange has not met its burden to show the proposed rule change is consistent with the Act. Prior to, and after submitting the First Proposed Rule Change, the Exchange solicited feedback from its Members, including SIG. SIG relayed their concerns regarding the proposed change. The Exchange then sought to work with SIG to address their

[69] *See* SIG Letter 2, *supra* note 12, at page 1.

[70] 17 CFR 201.700(b)(3).

[71] *See supra* note 44.

[72] *See* Securities Exchange Act Release Nos. 91858 (May 12, 2021), 86 FR 26967 (May 18, 2021) (SR–PEARL–2021–23) (Notice of Filing and Immediate Effectiveness of a Proposed Rule Change to Amend the MIAX Pearl Fee Schedule to Remove the Cap on the Number of Additional Limited Service Ports Available to Market Makers); 91460 (April 2, 2021), 86 FR 18349 (April 8, 2021) (SR–EMERALD–2021–11) (Notice of Filing and Immediate Effectiveness of a Proposed Rule Change To Amend Its Fee Schedule To Adopt Port Fees, Increase Certain Network Connectivity Fees, and Increase the Number of Additional Limited Service MIAX Emerald Express Interface Ports Available to Market Makers); *and* 91857 (May 12, 2021), 86 FR 26973 (May 18, 2021) (SR–MIAX–2021–19) (Notice of Filing and Immediate Effectiveness of a Proposed Rule Change To Amend Its Fee Schedule To Remove the Cap on the Number of Additional Limited Service Ports Available to Market Makers).

[73] *See, e.g.,* Securities Exchange Act Release No. 90196 (October 15, 2020), 85 FR 67064 (October 21, 2020) (SR–EMERALD–2020–11) (Notice of Filing and Immediate Effectiveness of a Proposed Rule Change To Amend Its Fee Schedule To Adopt One-Time Membership Application Fees and Monthly Trading Permit Fees). *See* Securities Exchange Act Release Nos. 90601 (December 8, 2020), 85 FR 80864 (December 14, 2020) (SR–EMERALD–2020–18) (re-filing with more detail added in response to Commission Staff's feedback and after withdrawing SR–EMERALD–2020–11); *and* 91033 (February 1, 2021), 86 FR 8455 (February 5, 2021) (SR–EMERALD–2021–03) (re-filing with more detail added in response to Commission Staff's feedback and after withdrawing SR–EMERALD–2020–18). The Exchange initially filed a proposal to remove the cap on the number of additional Limited Service MEO Ports available to Members on April 9, 2021. *See* SR–PEARL–2021–17. On April 22, 2021, the Exchange withdrew SR–PEARL–2021–17 and refiled that proposal (without increasing the actual fee amounts) to provide further clarification regarding the Exchange's revenues, costs, and profitability any time more Limited Service MEO Ports become available, in general, (including information regarding the Exchange's methodology for determining the costs and revenues for additional Limited Service MEO Ports). *See* SR–PEARL–2021–20. On May 3, 2021, the Exchange withdrew SR–PEARL–2021–20 and refiled that proposal to further clarify its cost methodology. *See* SR–PEARL–2021–22. On May 10, 2021, the Exchange withdrew SR–PEARL–2021–22 and refiled SR–PEARL–2021–23. *See* Securities Exchange Act Release No. 91858 (May 12, 2021), 86 FR 26967 (May 18, 2021) (SR–PEARL–2021–23).

[74] *See* HMA Letter, *supra* note 12.

[75] *Id.* (providing examples where non-transaction fee filings by other exchanges have been permitted to remain effective and not suspended by the Commission despite less disclosure and justification).

concerns and gain a better understanding of the access/connectivity/quoting infrastructure of other exchanges. In response, SIG provided no substantive suggestions on how to amend the First Proposed Rule Change to address their concerns and instead chose to submit three comment letters. One could argue that SIG is using the comment letter process not to raise legitimate regulatory concerns regarding the proposal, but to inhibit or delay proposed fee changes by the Exchange. With regards to the First and Second [sic] Proposed Rule Changes, the SIG Letter does not directly address the proposed fees or lay out specific arguments as to why the proposal is not consistent with Section 6(b)(4) of the Act. Rather, it simply describes the proposed fee change and flippantly states that its claims concerning the 10Gb ULL fee change proposals by the Exchange, and its affiliates, apply to these changes. Nonetheless, the Exchange submits the below response to the SIG Letter concerning the First Proposed Rule Change.

Furthermore, the Exchange has enhanced its cost and revenue analysis and data in this Fourth [sic] Proposed Rule Change to further justify that the Proposed Access Fees are reasonable in accordance with the Commission Staff's Guidance. Among other things, these enhancements include providing baseline information in the form of data from the month before the Proposed Access Fees became effective.

The Exchange now responds to SIG's remaining claims below. SIG Letter 3 first summarizes its arguments made in SIG Letters 1 and 2 and incorporates those arguments by reference. The Exchange responded to the arguments in SIG Letter 2 above. SIG Letter 3 incorporates the following arguments regarding additional Limited Service MEI Port fees from SIG Letter 1 (while excluding arguments that pertain solely to connectivity), which the Exchange will first respond to in turn, below:

''(1) The prospect that a member may withdraw from the Exchanges if a fee is too costly is not a basis for asserting that the fee is reasonable; (2) profit margin comparisons do not support the Exchanges' claims that they will not realize a supracompetitive profit . . . and comparisons to competing exchanges' overall operating profit margins are an inapt ''apples-to-oranges'' comparison . . . (7) the recoupment of investment for exchange infrastructure has no supporting nexus with the claim that the proposed fees are reasonable, equitably allocated, and not unfairly discriminatory . . . .'' [76]

General

First, the SIG Letter 1 states that additional Limited Service MEI Ports ''are critical to Exchange members to be competitive *and to provide essential protection from adverse market events*'' (*emphasis added*).[77] The Exchange notes that this statement is generally not true for additional Limited Service MEI Ports as those ports are completely voluntary and used primarily for entering liquidity removing orders and not risk protection activities like purging quotes resting on the MIAX Emerald Book. Additional Limited Service MEI Ports are essentially used for competitive reasons and Market Makers may choose to utilize one or two Limited Service MEI Ports that are provided for free, or purchase additional Limited Service MEI Ports based on their business needs and desire to attempt to access the market quicker by using one port that may have less latency. For instance, a Market Maker may have just sent numerous messages and/or orders over one of their additional Limited Service MEI Ports that are in queue to be processed. That same Market Maker then seeks to enter an order to remove liquidity from the Exchange's Book. That Market Maker may choose to send that order simultaneously over all of their Limited Service MEI Ports that they elected to purchase to ensure that their liquidity taking order accesses the Exchange as quickly as possible.

If the Exchanges Were To Attempt To Establish Unreasonable Pricing, Then No Market Participant Would Join or Connect to the Exchange, and Existing Market Participants Would Disconnect

SIG asserts that ''the prospect that a member may withdraw from the Exchanges if a fee is too costly is not a basis for asserting that the fee is reasonable.'' [78] SIG misinterprets the Exchange's argument here. The Exchange provided the examples of firms terminating access to certain markets due to fees to support its assertion that firms, including market makers, are not required to connect to all markets and may drop access if fees become too costly for their business models and alternative or substitute forms of access are available to those firms who choose to terminate access. The Commission Staff Guidance also provides that ''[a] statement that substitute products or services are available to market participants in the relevant market (*e.g.,* equities or options) can demonstrate competitive forces if supported by evidence that substitute products or services exist.'' [79] Nonetheless, the Fourth [sic] Proposed Rule Change no longer makes this assertion as a basis for the proposed fee change and, therefore, the Exchange believes it is not necessary to respond to this portion of SIG Letters 1 and 3.

The Proposed Access Fees Will Not Result in Excessive Pricing or Supra-Competitive Profit

Next, SIG asserts that the Exchange's ''profit margin comparisons do not support the Exchanges' claims that they will not realize a supracompetitive profit,'' and ''comparisons to competing exchanges' overall operating profit margins are an inapt 'apples-to-oranges' comparison.'' [80]

The Exchange has provided ample data that the Proposed Access Fees would not result in excessive pricing or a supra-competitive profit. In this Fourth [sic] Proposed Rule Change, the Exchange no longer utilizes a comparison of its profit margin to that of other options exchanges as a basis that the Proposed Access Fees are reasonable. Rather, the Exchange has enhanced its cost and revenue analysis and data in this Fourth [sic] Proposed Rule Change to further justify that the Proposed Access Fees are reasonable in accordance with the Commission Staff's Guidance. Therefore, the Exchange believes it is no longer necessary to respond to this portion of SIG Letters 1 and 3.

Recoupment of Exchange Infrastructure Costs

Nowhere in this proposal or in the First, Second [sic], or Third [sic] Proposed Rule Changes did the Exchange assert that it benefits competition to allow a new exchange entrant to recoup their infrastructure costs. Rather, the Exchange asserts above that its ''proposed fees are reasonable, equitably allocated and not unfairly discriminatory because the Exchange, and its affiliates, are still recouping the initial expenditures from building out their systems while the legacy exchanges have already paid for and built their systems.'' The Exchange no longer makes this assertion in this filing and, therefore, does not believe is it necessary to respond to SIG's assertion here.

[76] *See* SIG Letter 3, *supra* note 12.

[77] *See* SIG Letter 1 at page 2, *supra* note 12.

[78] *Id.*

[79] *See* Guidance, *supra* note 28.

[80] *See supra* note 12.

The Proposed Tiered Pricing Structure Is Not Unfairly Discriminatory

SIG challenges the proposed fees by arguing that ''the Exchange[ ] provide[s] no support for [its] claim that [the] proposed tiered pricing structure is needed to encourage efficiency in connectivity usage and the Exchange[ ] provided no support for [the] claim that the tiered pricing structure allows them to better monitor connectivity usage, nor that this is an appropriate basis for the pricing structure in any event.'' The Exchange provided additional justification to support that the Proposed Access Fees are equitable and not unfairly discriminatory above in response to SIG's assertions.

SIFMA Letter

In sum, the SIFMA Letter asserts that the Exchange has failed to demonstrate that the Proposed Access Fees are reasonable for three reasons:

(i) ''The Exchanges' ''platform competition'' argument that competition for order flow constrains pricing for market data or other products and services exclusively offered by an exchange does not demonstrate that the fees are reasonable.''

(ii) ''. . . order flow competition alone between exchanges does not demonstrate that the fees for the products and services subject to the Proposal are reasonable.''

(iii) ''the Exchanges' argument that the products and services subject to the Proposals are optional does not reflect marketplace reality, nor does it demonstrate that the proposed fees are reasonable.''

The Exchange responds to each of SIFMA's challenges in turn below.

The Exchange Never Set Forth a ''Platform Competition'' Argument

The SIFMA Letter asserts that the Exchange's ''platform competition'' argument that competition for order flow constrains pricing for market data or other products and services exclusively offered by an exchange does not demonstrate that the fees are reasonable.'' The Exchange does not believe it is necessary to respond to this assertion because it has never set forth a ''platform competition'' [81] argument to justify the Proposed Access Fees in the First or Second [sic] Proposed Rule Changes nor does it do so in this filing.

The Exchange Is Not Arguing That Order Flow Competition Alone Demonstrates That the Proposed Fees Are Reasonable

The SIFMA Letter asserts that ''order flow competition alone between exchanges does not demonstrate that the fees for the products and services subject to the Proposal are reasonable.'' [82] The Exchange never directly asserted in the First or Second [sic] Proposed Rule Changes, nor does it do so in this filing, that order flow competition, alone, demonstrated that the Proposed Access Fees are reasonable and has removed any language that could imply this argument from this filing.

Other SIFMA Assertions

SIFMA also challenges or asserts: (i) Whether the Exchange has shown that the fees are equitable and non-discriminatory; (ii) that a tiered pricing structure will encourage market participants to be more economical with the usage; (iii) greater number of ports use greater Exchange resources; and (iv) that the Exchange has not provided extensive information regarding its cost data and how it determined it cost analysis. The Exchange believes that these assertions by SIFMA basically echo assertions made in SIG Letters 1 and 3 and that it provided a response to these assertions under its response to SIG above or in provided enhanced transparency and justification in this filing.

III. Suspension of the Proposed Rule Change

Pursuant to Section 19(b)(3)(C) of the Act,[83] at any time within 60 days of the date of filing of a proposed rule change pursuant to Section 19(b)(1) of the Act,[84] the Commission summarily may temporarily suspend the change in the rules of a self-regulatory organization (''SRO'') if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act. As discussed below, the Commission believes a temporary suspension of the proposed rule change is necessary and appropriate to allow for additional analysis of the proposed rule change's consistency with the Act and the rules thereunder.

As the Exchange further details above, the Exchange first filed a proposed rule change proposing fee changes as proposed herein on August 2, 2021. That proposal, SR–EMERALD–2021–25, was published for comment in the **Federal Register** on August 19, 2021.[85] On September 24, 2021 the Exchange withdrew SR–EMERALD–2021–25 and re-filed its proposal on September 27, 2021 (SR–EMERALD–2021–30). On September 28, 2021, the Exchange withdrew SR–EMERALD–2021–30 and filed a proposed rule change proposing fee changes as proposed herein. That proposal, SR–EMERALD–2021–31, was published for comment in the **Federal Register** on October 5, 2021.[86] The Commission received three comment letters from two separate commenters on SR–EMERALD–2021–31.[87] On November 22, 2021, pursuant to Section 19(b)(3)(C) of the Act, the Commission: (1) Temporarily suspended the proposed rule change; and (2) instituted proceedings to determine whether to approve or disapprove the proposed rule change.[88] On December 1, 2021, the Exchange withdrew SR–EMERALD–2021–31 and filed a proposed rule change proposing fee changes as proposed herein. That filing, SR–EMERALD–2021–43,[89] was published for comment in the **Federal Register** on December 20, 2021.[90] On January 27, 2022, pursuant to Section 19(b)(3)(C) of the Act, the Commission: (1) Temporarily suspended the proposed rule change (SR–EMERALD–2021–43); and (2) instituted proceedings to determine whether to approve or disapprove the proposal.[91] On February 1, 2022, the Exchange withdrew SR–EMERALD–2021–43 and filed the instant filing, which is substantially similar.

When exchanges file their proposed rule changes with the Commission, including fee filings like the Exchange's present proposal, they are required to provide a statement supporting the proposal's basis under the Act and the rules and regulations thereunder

[81] Pursuant to the Guidance, ''platform theory generally asserts that when a business offers facilities that bring together two or more distinct types of customers, it is the overall return of the platform, rather than the return of any particular fees charged to a type of customer, that should be used to assess the competitiveness of the platform's market.'' *See* Guidance, *supra* note 28.

[82] *See* SIFMA Letter, *supra* note 12.

[83] 15 U.S.C. 78s(b)(3)(C).

[84] 15 U.S.C. 78s(b)(1).

[85] *See* Securities Exchange Act Release No. 92662 (August 13, 2021), 86 FR 46726 (August 19, 2021) (SR–EMERALD–2021–25). The Commission received one comment letter on that proposal. Comment on SR–EMERALD–2021–25 can be found at: *https://www.sec.gov/comments/sr-emerald-2021-25/sremerald202125.htm.*

[86] *See* Securities Exchange Act Release No. 93188 (September 29, 2021), 86 FR 55052 (October 5, 2021) (SR–EMERALD–2021–31).

[87] Comment on SR–EMERALD–2021–31 can be found at: *https://www.sec.gov/comments/sr-emerald-2021-31/sremerald202131.htm.*

[88] *See* Securities Exchange Act Release No. 93640 (November 22, 2021), 86 FR 67745 (November 29, 2021).

[89] *See* text accompanying *supra* note 15.

[90] *See* Securities Exchange Act Release No. 93772 (December 14, 2021), 86 FR 71965 (December 20, 2021).

[91] *See* Securities Exchange Act Release No. 94087 (January 27, 2022), 87 FR 5918 (February 2, 2022).

applicable to the exchange.[92] The instructions to Form 19b–4, on which exchanges file their proposed rule changes, specify that such statement ''should be sufficiently detailed and specific to support a finding that the proposed rule change is consistent with [those] requirements.'' [93]

Among other things, exchange proposed rule changes are subject to Section 6 of the Act, including Sections 6(b)(4), (5), and (8), which requires the rules of an exchange to: (1) Provide for the equitable allocation of reasonable fees among members, issuers, and other persons using the exchange's facilities; [94] (2) perfect the mechanism of a free and open market and a national market system, protect investors and the public interest, and not permit unfair discrimination between customers, issuers, brokers, or dealers; [95] and (3) not impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act.[96]

In temporarily suspending the Exchange's fee change, the Commission intends to further consider whether the proposed additional Limited Service MEI Port fees are consistent with the statutory requirements applicable to a national securities exchange under the Act. In particular, the Commission will consider whether the proposed rule change satisfies the standards under the Act and the rules thereunder requiring, among other things, that an exchange's rules provide for the equitable allocation of reasonable fees among members, issuers, and other persons using its facilities; not be designed to permit unfair discrimination between customers, issuers, brokers, or dealers; and not impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act.[97]

Therefore, the Commission finds that it is appropriate in the public interest, for the protection of investors, and otherwise in furtherance of the purposes of the Act, to temporarily suspend the proposed rule change.[98]

IV. Proceedings To Determine Whether To Approve or Disapprove the Proposed Rule Change

The Commission is instituting proceedings pursuant to Sections 19(b)(3)(C) [99] and 19(b)(2)(B) [100] of the Act to determine whether the Exchange's proposed rule change should be approved or disapproved. Institution of such proceedings is appropriate at this time in view of the legal and policy issues raised by the proposed rule change. Institution of proceedings does not indicate that the Commission has reached any conclusions with respect to any of the issues involved. Rather, as described below, the Commission seeks and encourages interested persons to provide comments on the proposed rule change to inform the Commission's analysis of whether to approve or disapprove the proposed rule change.

Pursuant to Section 19(b)(2)(B) of the Act,[101] the Commission is providing notice of the grounds for possible disapproval under consideration. The Commission is instituting proceedings to allow for additional analysis of whether the Exchange has sufficiently demonstrated how the proposed rule change is consistent with Sections 6(b)(4),[102] 6(b)(5),[103] and 6(b)(8) [104] of the Act. Section 6(b)(4) of the Act requires that the rules of a national securities exchange provide for the equitable allocation of reasonable dues, fees, and other charges among its members and issuers and other persons using its facilities. Section 6(b)(5) of the Act requires that the rules of a national securities exchange be designed, among other things, to promote just and equitable principles of trade, to remove impediments to and perfect the mechanism of a free and open market and a national market system and, in general, to protect investors and the public interest, and not be designed to permit unfair discrimination between customers, issuers, brokers, or dealers. Section 6(b)(8) of the Act requires that the rules of a national securities exchange not impose any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act.

The Commission asks that commenters address the sufficiency of the Exchange's statements in support of the proposal, in addition to any other comments they may wish to submit about the proposed rule change. In particular, the Commission seeks comment on the following aspects of the proposal and asks commenters to submit data where appropriate to support their views:

1. *Cost Estimates and Allocation.* The Exchange states that it is not asserting that the Proposed Access Fees are constrained by competitive forces, but rather set forth a ''cost-plus model,'' employing a ''conservative methodology'' that ''strictly considers only those costs that are most clearly directly related to the provision and maintenance of additional Limited Service MEI Ports.'' [105] As described above by the Exchange, MIAX Emerald projects $0.88 million in aggregate annual estimated costs for 2021 for additional Limited Service MEI Ports. Do commenters believe that the Exchange has provided sufficient detail about how it determined (a) which categories and sub-categories of third-party and internal expenses are most clearly directly associated with providing and maintaining *additional* Limited Service MEI Ports, (b) the total annual expenses associated with such categories/sub-categories, and (c) what percentage of each such expense should be allocated as actually supporting the *additional* Limited Service MEI Ports (as opposed to, for example, allocated to the first two ''free'' Limited Service MEI Ports or other types of ports or connectivity services offered by the Exchange)? The Exchange describes a ''proprietary'' process involving all Exchange department heads, including the finance department and numerous meetings between the Exchange's Chief Information Officer, Chief Financial Officer, Head of Strategic Planning and Operations, Chief Technology Officer, various members of the Legal Department, and other group leaders, but does not specify further what principles were applied in making these determinations or arriving at particular allocations. Do commenters believe further explanation is necessary? For employee compensation and benefit costs, for example, the Exchange calculated an allocation of employee time in several departments, including Technology, Back Office, Systems Operations, Networking, Business Strategy Development, and Trade Operations, but does not provide the job titles and salaries of persons whose time was accounted for, or explain the methodology used to determine how much of an employee's time is devoted to providing and maintaining additional Limited Service MEI Ports. What are

[92] *See* 17 CFR 240.19b–4 (Item 3 entitled ''Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change'').

[93] *See id.*

[94] 15 U.S.C. 78f(b)(4).

[95] 15 U.S.C. 78f(b)(5).

[96] 15 U.S.C. 78f(b)(8).

[97] *See* 15 U.S.C. 78f(b)(4), (5), and (8), respectively.

[98] For purposes of temporarily suspending the proposed rule change, the Commission has considered the proposed rule's impact on efficiency, competition, and capital formation. *See* 15 U.S.C. 78c(f).

[99] 15 U.S.C. 78s(b)(3)(C). Once the Commission temporarily suspends a proposed rule change, Section 19(b)(3)(C) of the Act requires that the Commission institute proceedings under Section 19(b)(2)(B) to determine whether a proposed rule change should be approved or disapproved.

[100] 15 U.S.C. 78s(b)(2)(B).

[101] 15 U.S.C. 78s(b)(2)(B). Section 19(b)(2)(B) of the Act also provides that proceedings to determine whether to disapprove a proposed rule change must be concluded within 180 days of the date of publication of notice of the filing of the proposed rule change. *See id.* The time for conclusion of the proceedings may be extended for up to 60 days if the Commission finds good cause for such extension and publishes its reasons for so finding, or if the exchange consents to the longer period. *See id.*

[102] 15 U.S.C. 78f(b)(4).

[103] 15 U.S.C. 78f(b)(5).

[104] 15 U.S.C. 78f(b)(8).

[105] *See supra* Section II.A.2.

commenters' views on whether the Exchange has provided sufficient detail on the identity and nature of services provided by third parties? Across all of the categories and sub-categories of third-party and internal expenses that the Exchange identified as being clearly directly associated with providing and maintaining additional Limited Service MEI Ports, what are commenters' views on whether the Exchange has provided sufficient detail on how it selected such categories/sub-categories and how shared costs within or among such categories/sub-categories are allocated to additional Limited Service MEI Ports, to permit an independent review and assessment of the reasonableness of purported cost-based fees and the corresponding profit margin thereon? Should the Exchange be required to identify the categories/sub-categories of expenses that it deemed *not* to be clearly directly associated with additional Limited Service MEI Ports, and/or what Exchange products or services account for the *un*-allocated percentage of those categories/sub-categories of expenses that were deemed to be associated with additional Limited Service MEI Ports (*e.g.,* what products or services are associated with the approximately 98 percent of applicable depreciation and amortization expenses that MIAX Emerald does *not* allocate to the Proposed Access Fees)? Do commenters believe that the costs projected for 2021 are generally representative of expected costs going forward (to the extent commenters consider 2021 to be a typical or atypical year), or should an exchange present an estimated range of costs with an explanation of how profit margins could vary along the range of estimated costs? Should the Exchange use cost projections or actual cost estimates for 2021 in a filing made in 2022, or make cost projections for 2022?

2. *Revenue Estimates and Profit Margin Range.* The Exchange uses a single monthly revenue figure (November 2021) as the basis for calculating its projected profit margin of 66 percent. The Exchange argues that projecting revenues on a per month basis is reasonable ''as the revenue generated from access services subject to the proposed fee generally remains static from month to month.'' [106] Yet the Exchange also acknowledges that ''the revenue . . . may vary from month to month due to changes in ports.'' [107] Similarly, the Exchange states that ''the number of ports has not materially changed over the previous months,'' yet also states that firms ''frequently add and drop ports mid-month.'' [108] Do commenters believe a single month provides a reasonable basis for a revenue projection? If not, why not? The profit margin is also dependent on the accuracy of the cost projections which, if inflated (intentionally or unintentionally), may render the projected profit margin meaningless. The Exchange acknowledges that this margin may fluctuate from month to month due to changes in the number of ports purchased, and that costs may increase.[109] The Exchange does not account for the possibility of cost decreases, however. What are commenters' views on the extent to which actual costs (or revenues) deviate from projected costs (or revenues)? Do commenters believe that the Exchange's methodology for estimating the profit margin is reasonable? Should the Exchange provide a range of profit margins that it believes are reasonably possible, and the reasons therefor?

3. *Reasonable Rate of Return.* The Exchange states that its Proposed Access Fees are ''designed to cover its costs with a limited return in excess of such costs,'' that ''revenue and associated profit margin . . . are not solely intended to cover the costs associated with providing access services subject to the Proposed Access Fees,'' and that a 66 percent margin is a limited return over such costs.[110] Do commenters agree with the Exchange that its expected 66 percent profit margin would constitute a reasonable rate of return over costs for additional Limited Service MEI Ports? If not, what would commenters consider to be a reasonable rate of return and/or what methodology would they consider to be appropriate for determining a reasonable rate of return? The Exchange states that it chose to initially provide additional Limited Service MEI Ports at a discounted price and to forego revenue that it otherwise could have generated from assessing higher fees.[111] Do commenters believe that this should be considered in the ''reasonableness'' assessment? Do commenters believe it relevant to an assessment of reasonableness that, according to the Exchange, the Proposed Access Fees are similar to or lower than fees charged by competing options exchanges with similar market share? Should an assessment of reasonable rate of return include consideration of factors other than costs; and if so, what factors should be considered, and why?

4. *Periodic Reevaluation.* The Exchange has addressed whether it believes a material deviation from the anticipated profit margin would warrant the need to make a rule filing pursuant to Section 19(b) of the Act to increase or decrease the fees accordingly, stating that ''[a]ny requirement that an exchange should conduct a periodic re-evaluation on a set timeline of its cost justification and amend its fees accordingly should be established by the Commission holistically, applied to all exchanges and not just pending fee proposals such as this filing,'' and that ''[i]n order to be fairly applied, such a mandate should be applied to existing access fees as well.'' [112] In light of the impact that the number of ports purchased has on profit margins, and the potential for costs to decrease (or increase) over time, what are commenters' views on the need for exchanges to commit to reevaluate, on an ongoing and periodic basis, their cost-based connectivity fees to ensure that the fees stay in line with their stated profitability projections and do not become unreasonable over time, for example, by failing to adjust for efficiency gains, cost increases or decreases, and changes in subscribers? How formal should that process be, how often should that reevaluation occur, and what metrics and thresholds should be considered? How soon after a new connectivity fee change is implemented should an exchange assess whether its revenue and/or cost estimates were accurate and at what threshold should an exchange commit to file a fee change if its estimates were inaccurate? Should an initial review take place within the first 30 days after a connectivity fee is implemented? 60 days? 90 days? Some other period?

5. *Tiered Structure for Additional Limited Service MEI Ports.* The Exchange states that the proposed tiered fee structure is designed to set the amount of the fees to relate to the number of ports a firm purchases [113] and that ''[c]harging an incrementally higher fee to a Market Maker that utilizes numerous ports is directly related to the increased costs the Exchange incurs in providing and maintaining those additional ports.'' [114] According to the Exchange, firms that purchase numerous Limited Service MEI Ports are primarily those that engage in advanced trading strategies, typically generate a disproportionate amount of messages and order traffic, and frequently add or drop ports mid-month, and thus that ''it is equitable for these firms to experience increased port costs based on their disproportionate pull on Exchange resources to provide the additional port access.'' [115] The Proposed Access Fees would not just increase the previous $100 per additional Limited Service MEI Port fee, but would *progressively* increase the fee up to four-fold (up to $400 per port for seven or more ports). However, the Exchange has not specifically asserted that it is, for example, four times more costly to provide the seventh or more ports. Instead, the Exchange argues generally that the more ports purchased by a Market Maker ''likely'' results in greater expenditure of Exchange resources and increased cost to the Exchange, and that as the number of ports an entity has increases, certain other costs incurred by the Exchange that are correlated to, though not directly affected by, port costs (*e.g.,* storage costs, surveillance costs, service expenses) also increase.[116] Do commenters believe that the fees for each tier, as well as the fee differences between the tiers, are supported by the Exchange's assertions that it set the tiered-pricing structure in a manner that is equitable and not unfairly discriminatory? Do commenters believe that the Exchange should demonstrate how the proposed tiered fee levels correlate with tiered costs (*e.g.,* by providing cost information broken down by tier, messaging volumes through the additional Limited Service MEI Ports by tier, and/or mid-month add/drop rates by tier) to better substantiate, by tier, the ''disproportionate pull'' on the Exchange's resources as a firm increases the number of additional Limited Service MEI Ports that it purchases and to permit an assessment of the Exchange's statement that

[106] *See id.*
[107] *See id.*
[108] *See id.*
[109] *See id.*
[110] *See id.*
[111] *See id.*
[112] *See id.*
[113] *See id.*
[114] *See id.*
[115] *See id.*
[116] *See id.*

the Proposed Access Fees ''are solely determined by the individual Members' or non-Members' business needs and its impact on Exchange resources''? [117]

Under the Commission's Rules of Practice, the ''burden to demonstrate that a proposed rule change is consistent with the Exchange Act and the rules and regulations issued thereunder . . . is on the [SRO] that proposed the rule change.'' [118] The description of a proposed rule change, its purpose and operation, its effect, and a legal analysis of its consistency with applicable requirements must all be sufficiently detailed and specific to support an affirmative Commission finding,[119] and any failure of an SRO to provide this information may result in the Commission not having a sufficient basis to make an affirmative finding that a proposed rule change is consistent with the Act and the applicable rules and regulations.[120] Moreover, ''unquestioning reliance'' on an SRO's representations in a proposed rule change would not be sufficient to justify Commission approval of a proposed rule change.[121]

The Commission believes it is appropriate to institute proceedings to allow for additional consideration and comment on the issues raised herein, including as to whether the proposal is consistent with the Act, any potential comments or supplemental information provided by the Exchange, and any additional independent analysis by the Commission.

V. Commission's Solicitation of Comments

The Commission requests written views, data, and arguments with respect to the concerns identified above as well as any other relevant concerns. In particular, the Commission invites the written views of interested persons concerning whether the proposal is consistent with Sections 6(b)(4), 6(b)(5), and 6(b)(8), or any other provision of the Act, or the rules and regulations thereunder. The Commission asks that commenters address the sufficiency and merit of the Exchange's statements in support of the proposal, in addition to any other comments they may wish to submit about the proposed rule change. Although there do not appear to be any issues relevant to approval or disapproval that would be facilitated by an oral presentation of views, data, and arguments, the Commission will consider, pursuant to Rule 19b–4, any request for an opportunity to make an oral presentation.[122]

Interested persons are invited to submit written data, views, and arguments regarding whether the proposal should be approved or disapproved by March 15, 2022. Any person who wishes to file a rebuttal to any other person's submission must file that rebuttal by March 29, 2022.

Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's internet comment form (*http://www.sec.gov/rules/sro.shtml*); or
- Send an email to *rule-comments@sec.gov.* Please include File No. SR–EMERALD–2022–05 on the subject line.

Paper Comments

- Send paper comments in triplicate to Secretary, Securities and Exchange Commission, 100 F Street NE, Washington, DC 20549–1090.

All submissions should refer to File No. SR–EMERALD–2022–05. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's internet website (*http://www.sec.gov/rules/sro.shtml*). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street NE, Washington, DC 20549, on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change. Persons submitting comments are cautioned that we do not redact or edit personal identifying information from comment submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File No. SR–EMERALD–2022–05 and should be submitted on or before March 15, 2022. Rebuttal comments should be submitted by March 29, 2022.

VI. Conclusion

It is therefore ordered, pursuant to Section 19(b)(3)(C) of the Act,[123] that File No. SR–EMERALD–2022–05 be, and hereby is, temporarily suspended. In addition, the Commission is instituting proceedings to determine whether the proposed rule change should be approved or disapproved.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[124]

J. Matthew DeLesDernier,

Assistant Secretary.

[FR Doc. 2022–03655 Filed 2–18–22; 8:45 am]

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SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–94256; File No. SR–MIAX–2022–07]

Self-Regulatory Organizations; Miami International Securities Exchange, LLC; Notice of Filing of a Proposed Rule Change To Amend the MIAX Fee Schedule To Adopt a Tiered-Pricing Structure for Certain Connectivity Fees; Suspension of and Order Instituting Proceedings To Determine Whether To Approve or Disapprove the Proposed Rule Change

February 15, 2022.

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (''Act''),[1] and Rule 19b–4 thereunder,[2] notice is hereby given that on February 1, 2022, Miami International Securities Exchange, LLC (''MIAX'' or ''Exchange'') filed with the Securities and Exchange Commission (''Commission'') a proposed rule change as described in Items I and II below, which Items have been prepared by the Exchange. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons and is, pursuant to Section 19(b)(3)(C) of the

[117] *See id.*

[118] 17 CFR 201.700(b)(3).

[119] *See id.*

[120] *See id.*

[121] *See Susquehanna Int'l Group, LLP* v. *Securities and Exchange Commission,* 866 F.3d 442, 446–47 (D.C. Cir. 2017) (rejecting the Commission's reliance on an SRO's own determinations without sufficient evidence of the basis for such determinations).

[122] 15 U.S.C. 78s(b)(2). Section 19(b)(2) of the Act grants the Commission flexibility to determine what type of proceeding—either oral or notice and opportunity for written comments—is appropriate for consideration of a particular proposal by an SRO. *See* Securities Acts Amendments of 1975, Report of the Senate Committee on Banking, Housing and Urban Affairs to Accompany S. 249, S. Rep. No. 75, 94th Cong., 1st Sess. 30 (1975).

[123] 15 U.S.C. 78s(b)(3)(C).

[124] 17 CFR 200.30–3(a)(12), (57) and (58).

[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

Act, hereby: (i) Temporarily suspending the rule change; and (ii) instituting proceedings to determine whether to approve or disapprove the proposed rule change.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

The Exchange is filing a proposal to amend the MIAX Options Fee Schedule (the ''Fee Schedule'') to amend certain connectivity fees.

The text of the proposed rule change is available on the Exchange's website at *http://www.miaxoptions.com/rule-filings,* at MIAX's principal office, and at the Commission's Public Reference Room.

II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the Exchange included statements concerning the purpose of and basis for the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in Item IV [sic] below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

The Exchange proposes to amend the Fee Schedule to adopt a tiered-pricing structure for the 10 gigabit (''Gb'') ultra-low latency (''ULL'') fiber connection available to Members [3] and non-Members. The Exchange initially filed this proposal on July 30, 2021, with the proposed fee changes effective beginning August 1, 2021 (''First Proposed Rule Change'').[4] The First Proposed Rule Change was published for comment in the **Federal Register** on August 17, 2021.[5] The Commission received one comment letter on the First Proposed Rule Change.[6] The Exchange withdrew the First Proposed Rule Change on September 24, 2021 and re-submitted the proposal on September 24, 2021, with the proposed fee changes being immediately effective (''Second Proposed Rule Change'').[7] The Second Proposed Rule Change was published for comment in the **Federal Register** on October 4, 2021.[8] The Second Proposed Rule Change provided additional justification for the proposed fee changes and addressed certain points raised in the single comment letter that was submitted on the First Proposed Rule Change. The Commission received four comment letters from three separate commenters on the Second Proposed Rule Change.[9] The Commission suspended the Second Proposed Rule Change on November 22, 2021.[10] The Exchange withdrew the Second Proposed Rule Change on December 1, 2021 and submitted a revised proposal for immediate effectiveness (''Third Proposed Rule Change'').[11] The Third Proposed Rule Change meaningfully attempted to address issues or questions that have been raised by providing additional justification and explanation for the proposed fee changes and directly respond to the points raised in SIG Letters 1, 2, and 3, as well as the SIFMA Letter submitted on the First and Second Proposed Rule Changes,[12] and feedback provided by Commission Staff during a telephone conversation on November 18, 2021 relating to the Second Proposed Rule Change. The Third Proposed Rule Change was published for comment in the **Federal Register** on December 20, 2021.[13] The Exchange receive no comment letters on the Third Proposed Rule Change. The Commission suspended the Third Proposed Rule Change on January 27, 2022.[14] The Exchange withdrew the Third Proposed Rule Change on February 1, 2022 and now submits this proposal for immediate effectiveness (''Fourth Proposed Rule Change''). This Fourth Proposed Rule Change provides additional justification and explanation for the proposed fee changes.

10Gb ULL Tiered-Pricing Structure

The Exchange proposes to amend Sections (5)(a)–(b) of the Fee Schedule to provide for a tiered-pricing structure for 10Gb ULL connections for Members and non-Members. Prior to the First Proposed Rule Change, the Exchange assessed Members and non-Members a flat monthly fee of $10,000 per 10Gb ULL connection for access to the Exchange's primary and secondary facilities.

The Exchange now proposes to move from a flat monthly fee per connection to a tiered-pricing structure under which the monthly fee would vary depending on the number of 10Gb ULL connections each Member or non-Member elects to purchase per exchange. Specifically, the Exchange proposes to decrease the fee for the first and second 10Gb ULL connections for each Member and non-Member from the current flat monthly fee of $10,000 to $9,000 per connection. To encourage more efficient connectivity usage, the Exchange proposes to increase the per connection fee for Members and non-Members that purchase more than two 10Gb ULL connections. In particular, (i) the third and fourth 10Gb ULL connections for each Member or non-Member will increase from the current flat monthly fee of $10,000 to $11,000 per connection; and (ii) for the fifth

[3] The term ''Member'' means an individual or organization approved to exercise the trading rights associated with a Trading Permit. Members are deemed ''members'' under the Exchange Act. *See* Exchange Rule 100.

[4] *See* Securities Exchange Act Release No. 92643 (August 11, 2021), 86 FR 46034 (August 17, 2021) (SR–MIAX–2021–35).

[5] *Id.*

[6] *See* Letter from Richard J. McDonald, Susquehanna International Group, LLC (''SIG''), to Vanessa Countryman, Secretary, Commission, dated September 7, 2021 (''SIG Letter 1'').

[7] *See* Securities Exchange Act Release No. 93165 (September 28, 2021), 86 FR 54750 (October 4, 2021) (SR–MIAX–2021–41).

[8] *Id.*

[9] *See* letters from Richard J. McDonald, SIG, to Vanessa Countryman, Secretary, Commission, dated October 1, 2021 (''SIG Letter 2'') and October 26, 2021 (''SIG Letter 3''). *See also* letter from Tyler Gellasch, Executive Director, Healthy Markets Association (''HMA''), to Hon. Gary Gensler, Chair, Commission, dated October 29, 2021 (commenting on SR–CboeEDGA–2021–017, SR–CboeBYX–2021–020, SR–Cboe-BZX–2021–047, SR–CboeEDGX–2021–030, SR–MIAX–2021–41, SR–PEARL–2021–45, and SR–EMERALD–2021–29 and stating that ''MIAX has repeatedly filed to change its connectivity fees in a way that will materially lower costs for many users, while increasing the costs for some of its heaviest of users. These filings have been withdrawn and repeatedly refiled. *Each time, however, the filings contain significantly greater information about who is impacted and how than other filings that have been permitted to take effect without suspension*'') (*emphasis added*) (''HMA Letter''); *and* Ellen Green, Managing Director, Equity and Options Market Structure, Securities Industry and Financial Markets Association (''SIFMA''), to Vanessa Countryman, Secretary, Commission, dated November 26, 2021 (''SIFMA Letter'').

[10] *See* Securities Exchange Act Release No. 93639 (November 22, 2021), 86 FR 67758 (November 29, 2021).

[11] *See* Securities Exchange Act Release No. 93775 (December 14, 2021), 86 FR 71996 (December 20, 2021).

[12] The Exchange notes that while the HMA Letter applauds the level of disclosure the Exchange included in the First and Second Proposed Rule Changes, the HMA Letter does not raise specific issues with the First or Second Proposed Rule Changes. Rather, it references the Exchange's proposals by way of comparison to show the varying levels of transparency in exchange fees filings and recommends changes to the Commission's review process of exchange fee filings generally. Therefore, the Exchange does not feel it is necessary to address the issues raised in the HMA Letter.

[13] *See supra* note 11.

[14] *See* Securities Exchange Act Release No. 94088 (January 27, 2022) (Suspension of and Order Instituting Proceedings to Determine Whether to Approve or Disapprove Proposed Rule Changes to Amend the Fee Schedules to Adopt a Tiered-Pricing Structure for Certain Connectivity Fees).

10Gb ULL connection, and each 10Gb ULL connection purchased by Members and non-Members thereafter, the fee will increase from the flat monthly fee of $10,000 to $13,000 per connection. The proposed 10Gb ULL tiered-pricing structure and fees are collectively referred to herein as the ''Proposed Access Fees.''

The Exchange believes the other exchanges' connectivity fees are a useful example of alternative approaches to providing and charging for connectivity and provides the below table for comparison purposes only to show how its proposed fees compare to fees currently charged by other options exchanges for similar connectivity. As shown by the below table, the Exchange's proposed highest tier is still less than fees charged for similar connectivity provided by other options exchanges.

Exchange	Type of port	Monthly fee
MIAX (as proposed)	10Gb ULL	1–2 connection. $9,000.00, 3–4 connections. $11,000.00, 5 or more. $13,000.00.
The NASDAQ Stock Market LLC (''NASDAQ'') [15].	10Gb Ultra fiber	$15,000.00.
Nasdaq ISE LLC (''ISE'') [16]	10Gb Ultra fiber	$15,000.00.
Nasdaq PHLX LLC (''PHLX'') [17]	10Gb Ultra Fiber	$15,000.00.
NYSE American LLC (''Amex'') [18]	10Gb LX LCN	$22,000.00.

[15] *See* NASDAQ Rules, General 8: Connectivity, Section 1. Co-Location Services.
[16] *See* PHLX Rules, General 8: Connectivity.
[17] *See* ISE Rules, General 8: Connectivity.
[18] *See* NYSE American Options Fee Schedule, Section IV.

The Exchange will continue to assess monthly Member and non-Member network connectivity fees for connectivity to the primary and secondary facilities in any month the Member or non-Member is credentialed to use any of the Exchange APIs or market data feeds in the production environment. The Exchange proposes to pro-rate the fees when a Member or non-Member makes a change to the connectivity (by adding or deleting connections) with such pro-rated fees based on the number of trading days that the Member or non-Member has been credentialed to utilize any of the Exchange APIs or market data feeds in the production environment through such connection, divided by the total number of trading days in such month multiplied by the applicable monthly rate. The Exchange will continue to assess monthly Member and non-Member network connectivity fees for connectivity to the disaster recovery facility in each month during which the Member or non-Member has established connectivity with the disaster recovery facility.

The Exchange's MIAX Express Network Interconnect (''MENI'') can be configured to provide Members and non-Members of the Exchange network connectivity to the trading platforms, market data systems, test systems, and disaster recovery facilities of both the Exchange and its affiliate, MIAX PEARL, LLC (''MIAX Pearl Options''), via a single, shared connection. Members and non-Members utilizing the MENI to connect to the trading platforms, market data systems, test systems, and disaster recovery facilities of the Exchange and MIAX Pearl Options via a single, shared connection will continue to only be assessed one monthly connectivity fee per connection, regardless of the trading platforms, market data systems, test systems, and disaster recovery facilities accessed via such connection.

2. Statutory Basis

The Exchange believes that the Proposed Access Fees are consistent with Section 6(b) of the Act [19] in general, and furthers the objectives of Section 6(b)(4) of the Act [20] in particular, in that they provide for the equitable allocation of reasonable dues, fees and other charges among Members and other persons using any facility or system which the Exchange operates or controls. The Exchange also believes the Proposed Access Fees further the objectives of Section 6(b)(5) of the Act [21] in that they are designed to promote just and equitable principles of trade, remove impediments to and perfect the mechanism of a free and open market and a national market system, and, in general protect investors and the public interest and are not designed to permit unfair discrimination between customers, issuers, brokers and dealers.

On March 29, 2019, the Commission issued an Order disapproving a proposed fee change by the BOX Market LLC Options Facility to establish connectivity fees for its BOX Network (the ''BOX Order'').[22] On May 21, 2019, the Commission Staff issued guidance ''to assist the national securities exchanges and FINRA . . . in preparing Fee Filings that meet their burden to demonstrate that proposed fees are consistent with the requirements of the Securities Exchange Act.'' [23] Based on both the BOX Order and the Guidance, the Exchange believes that the Proposed Access Fees are consistent with the Act because they (i) are reasonable, equitably allocated, not unfairly discriminatory, and not an undue burden on competition; (ii) comply with the BOX Order and the Guidance; (iii) are supported by evidence (including comprehensive revenue and cost data and analysis) that they are fair and reasonable because they will not result in excessive pricing or supra-competitive profit; and (iv) utilize a cost-based justification framework that is substantially similar to a framework previously used by the Exchange, and its affiliates MIAX Emerald, LLC (''MIAX Emerald'') and MIAX Pearl Options, to amend other non-transaction fees.[24]

The Proposed Access Fees Will Not Result in a Supra-Competitive Profit

The Exchange believes that exchanges, in setting fees of all types, should meet very high standards of

[19] 15 U.S.C. 78f(b).
[20] 15 U.S.C. 78f(b)(4).
[21] 15 U.S.C. 78f(b)(5).
[22] *See* Securities Exchange Act Release No. 85459 (March 29, 2019), 84 FR 13363 (April 4, 2019) (SR–BOX–2018–24, SR–BOX–2018–37, and SR–BOX–2019–04) (Order Disapproving Proposed Rule Changes to Amend the Fee Schedule on the BOX Market LLC Options Facility to Establish BOX Connectivity Fees for Participants and Non-Participants Who Connect to the BOX Network).
[23] *See* Staff Guidance on SRO Rule Filings Relating to Fees (May 21, 2019), at *https://www.sec.gov/tm/staff-guidance-sro-rule-filings-fees* (the ''Guidance'').
[24] *See* Securities Exchange Act Release Nos. 90981 (January 25, 2021), 86 FR 7582 (January 29, 2021) (SR–PEARL–2021–01) (proposal to increase connectivity fees); 91460 (April 2, 2021), 86 FR 18349 (SR–EMERALD–2021–11) (proposal to adopt port fees, increase connectivity fees, and increase additional limited service ports); 91033 (February 1, 2021), 86 FR 8455 (February 5, 2021) (SR–EMERALD–2021–03) (proposal to adopt trading permit fees).

transparency to demonstrate why each new fee or fee amendment meets the requirements of the Act that fees be reasonable, equitably allocated, not unfairly discriminatory, and not create an undue burden on competition among market participants. The Exchange believes this high standard is especially important when an exchange imposes various access fees for market participants to access an exchange's marketplace. The Exchange deems connectivity to be access fees. It records these fees as part of its ''Access Fees'' revenue in its financial statements.

In the Guidance, the Commission Staff stated that, ''[a]s an initial step in assessing the reasonableness of a fee, staff considers whether the fee is constrained by significant competitive forces.'' [25] The Guidance further states that, ''. . . even where an SRO cannot demonstrate, or does not assert, that significant competitive forces constrain the fee at issue, a cost-based discussion may be an alternative basis upon which to show consistency with the Exchange Act.'' [26] In its Guidance, the Commission Staff further states that, ''[i]f an SRO seeks to support its claims that a proposed fee is fair and reasonable because it will permit recovery of the SRO's costs, or will not result in excessive pricing or supra-competitive profit, specific information, including quantitative information, should be provided to support that argument.'' [27] The Exchange does not assert that the Proposed Access Fees are constrained by competitive forces. Rather, the Exchange asserts that the Proposed Access Fees are reasonable because they will permit recovery of the Exchange's costs in providing access services to supply 10Gb ULL connectivity and will not result in the Exchange generating a supra-competitive profit.

The Guidance defines ''supra-competitive profit'' as ''profits that exceed the profits that can be obtained in a competitive market.'' [28] The Commission Staff further states in the Guidance that ''the SRO should provide an analysis of the SRO's baseline revenues, costs, and profitability (before the proposed fee change) and the SRO's expected revenues, costs, and profitability (following the proposed fee change) for the product or service in question.'' [29] The Exchange provides this analysis below.

Based on this analysis, the Exchange believes the Proposed Access Fees are reasonable and do not result in a ''supra-competitive'' [30] profit. The Exchange believes that it is important to demonstrate that the Proposed Access Fees are based on its costs and reasonable business needs. The Exchange believes the Proposed Access Fees will allow the Exchange to offset expenses the Exchange has and will incur, and that the Exchange provides sufficient transparency (described below) into the costs and revenue underlying the Proposed Access Fees. Accordingly, the Exchange provides an analysis of its revenues, costs, and profitability associated with the Proposed Access Fees. This analysis includes information regarding its methodology for determining the costs and revenues associated with the Proposed Access Fees. As a result of this analysis, the Exchange believes the Proposed Access Fees are fair and reasonable as a form of cost recovery plus present the possibility of a reasonable return for the Exchange's aggregate costs of offering connectivity to the Exchange and MIAX Pearl Options.

The Proposed Access Fees are based on a cost-plus model. In determining the appropriate fees to charge, the Exchange considered its costs and MIAX Pearl Options' costs to provide connectivity, using what it believes to be a conservative methodology (*i.e.,* that strictly considers only those costs that are most clearly directly related to the provision and maintenance of 10Gb ULL connectivity) to estimate such costs,[31] as well as the relative costs of providing and maintaining 10Gb ULL connectivity, and set fees that are designed to cover its costs with a limited return in excess of such costs. However, as discussed more fully below, such fees may also result in the Exchange recouping less than all of its costs of providing and maintaining 10Gb ULL connectivity because of the uncertainty of forecasting subscriber decision making with respect to firms' connectivity needs and the likely potential for increased costs to procure the third-party services described below.

To determine the Exchange's costs to provide access services associated with the Proposed Access Fees, the Exchange conducted an extensive cost review in which the Exchange analyzed nearly every expense item in the Exchange's general expense ledger to determine whether each such expense relates to the Proposed Access Fees, and, if such expense did so relate, what portion (or percentage) of such expense actually supports access services associated with the Proposed Access Fees.

The Exchange also provides detailed information regarding the Exchange's cost allocation methodology—namely, information that explains the Exchange's rationale for determining that it was reasonable to allocate certain expenses described in this filing towards the cost to the Exchange to provide the access services associated with the Proposed Access Fees. The Exchange conducted a thorough internal analysis to determine the portion (or percentage) of each expense to allocate to the support of access services associated with the Proposed Access Fees. This analysis [32] included discussions with each Exchange department head to determine the expenses that support access services associated with the Proposed Access Fees. This included numerous meetings between the Exchange's Chief Information Officer, Chief Financial Officer, Head of Strategic Planning and Operations, Chief Technology Officer, various members of the Legal Department, and other group leaders. The Exchange reviewed each individual expense to determine if such expense was related to the Proposed Access Fees. Once the expenses were identified, the Exchange department heads, with the assistance of our internal finance department, reviewed such expenses holistically on an Exchange-wide level to determine what portion of that expense supports providing access services for the Proposed Access Fees. The sum of all such portions of expenses represents the total cost to the Exchange to provide access services associated with the Proposed Access Fees. For the avoidance of doubt, no expense amount was allocated twice.

The internal cost analysis conducted by the Exchange is a proprietary process that is designed to make a fair and reasonable assessment of costs and resources allocated to support the provision of access services associated with the Proposed Access Fees. The

[25] *See* Guidance, *supra* note 23.

[26] *Id.*

[27] *Id.*

[28] *Id.*

[29] *Id.*

[30] *Id.*

[31] For example, the Exchange only included the costs associated with providing and supporting connectivity and excluded from its connectivity cost calculations any cost not directly associated with providing and maintaining such connectivity. Thus, the Exchange notes that this methodology underestimates the total costs of providing and maintaining connectivity.

[32] A description of the Exchange's methodology for determining the portion (or percentage) of each expense to allocate to the Proposed Access Fees is being provide in response to comments from SIG and SIFMA. *See* SIG Letter 3 *and* SIFMA Letter, *supra* note 9.

Exchange acknowledges that this assessment can only capture a moment in time and that costs and resource allocations may change. That is why the Exchange has historically, and on an ongoing basis, periodically revisits its costs and resource allocations to ensure it is appropriately allocating resources to properly provide services to the Exchange's constituents. Any requirement that an exchange should conduct a periodic re-evaluation on a set timeline of its cost justification and amend its fees accordingly should be established by the Commission holistically, applied to all exchanges and not just through pending fee proposals, such as this filing. In order to be fairly applied, such a mandate should be applied to existing access fees as well.

In accordance with the Guidance, the Exchange has provided sufficient detail to support a finding that the proposed fees are consistent with the Exchange Act. The proposal includes a detailed description of the Exchange's costs and how the Exchange determined to allocate those costs related to the proposed fees. In fact, the detail and analysis provided in this proposed rule change far exceed the level of disclosure provided in other exchange fee filings that have not been suspended by the Commission during its 60-day suspension period. A finding that this proposed rule change is inconsistent with the Exchange Act would run contrary to the Commission Staff's treatment of other recent exchange fee proposals that have not been suspended and remain in effect today.[33] For example, a proposed fee filing that closely resembles the Exchange's current filing was submitted in 2020 by the Cboe Exchange, Inc. (''Cboe'') and increased fees for Cboe's 10Gb connections.[34] This filing was submitted on September 2, 2020, nearly 15 months after the Staff's Guidance was issued. In that filing, the Cboe stated that the ''proposed changes were not designed with the objective to generate an overall increase in access fee revenue.'' [35] This filing provided no cost based data to support its assertion that the proposal was intended to be revenue neutral. Among other things, Cboe did not provide a description of the costs underlying its provision of 10Gb connections to show that this particular fee did not generate a supra-competitive profit or describe how any potential profit may be offset by increased costs associated with another fee included in its proposal. This filing, nonetheless, was not suspended by the Commission and remains in effect today.

The Exchange believes exchanges, like all businesses, should be provided flexibility when allocating costs and resources they deem necessary to operate their business, including providing market data and access services. The Exchange notes that costs and resource allocations may vary from business to business and, likewise, costs and resource allocations may differ from exchange to exchange when it comes to providing market data and access services. It is a business decision that must be evaluated by each exchange as to how to allocate internal resources and what costs to incur internally or via third parties that it may deem necessary to support its business and its provision of market data and access services to market participants. An exchange's costs may also vary based on fees charged by third parties and periodic increases to those fees that may be outside of the control of an exchange.[36]

To determine the Exchange's projected revenue associated with the Proposed Access Fees, the Exchange analyzed the number of Members and non-Members currently utilizing the 10Gb ULL fiber connection and used a recent monthly billing cycle representative of 2021 monthly revenue. The Exchange also provided its baseline by analyzing July 2021, the monthly billing cycle prior to the Proposed Access Fees going into effect, and compared it to its expenses for that month.[37] As discussed below, the Exchange does not believe it is appropriate to factor into its analysis future revenue growth or decline into its projections for purposes of these calculations, given the uncertainty of such projections due to the continually changing access needs of market participants and potential increase in internal and third party expenses. The Exchange is presenting its revenue and expense associated with the Proposed Access Fees in this filing in a manner that is consistent with how the Exchange presents its revenue and expense in its Audited Unconsolidated Financial Statements. The Exchange's most recent Audited Unconsolidated Financial Statement is for 2020. However, since the revenue and expense associated with the Proposed Access Fees were not in place in 2020 or for the first seven months of 2021, the Exchange believes its 2020 Audited Unconsolidated Financial Statement is not representative of its current total annualized revenue and costs associated with the Proposed Access Fees. Accordingly, the Exchange believes it is more appropriate to analyze the Proposed Access Fees utilizing its 2021 revenue and costs, as described herein, which utilize the same presentation methodology as set forth in the Exchange's previously-issued Audited Unconsolidated Financial Statements. Based on this analysis, the Exchange believes that the Proposed Access Fees are reasonable because they will allow the Exchange to recover its costs associated with providing access services related to the Proposed Access Fees and not result in excessive pricing or supra-competitive profit.

As outlined in more detail below, the Exchange and MIAX Pearl Options project that the final annualized expense for 2021 to provide all network connectivity services (that is, the shared network connectivity of all connectivity alternatives of the Exchange and MIAX Pearl Options, but excluding MIAX Emerald) to be approximately $15.9 million per annum or an average of $1,325,000 per month. The Exchange implemented the Proposed Access Fees on August 1, 2021 in the First Proposed Rule Change. For July 2021, prior to the Proposed Access Fees, the Exchange and MIAX Pearl Options Members and non-Members purchased a total of 156 10Gb ULL connections for which the Exchange and MIAX Pearl Options charged a total of approximately $1,547,620 (this includes MIAX and MIAX Pearl Options Members and non-Members dropping or adding connections mid-month, resulting in a pro-rated charge at times). This resulted in a profit of $222,620 for that month (a profit margin of 14.4%). For the month of October 2021, which includes the tiered rates for 10Gb ULL connectivity for the Proposed Access Fees, MIAX and MIAX Pearl Options Exchange Members and non-Members purchased a total of 154 10Gb ULL connections for which

[33] *See, e.g.,* Securities Exchange Act Release Nos. 91339 (March 17, 2021), 86 FR 15524 (March 23, 2021) (SR–CboeBZX–2021–020) (increasing fees for a market data product while not providing a cost based justification for the increase); 93293 (October 21, 2021), 86 FR 57716 (October 18, 2021) (SR–PHLX–2021–058) (increasing fees for historical market data while not providing a cost based justification for the increase); 92970 (September 14, 2021), 86 FR 52261 (September 20, 2021) (SR–CboeBZX–2021–047) (adopting fees for a market data related product while not providing a cost based justification for the fees); and 89826 (September 10, 2021), 85 FR 57900 (September 16, 2021) (SR–CBOE–2020–086) (increasing connectivity fees without including a cost based justification).

[34] *See* Securities Exchange Act Release No. 89826 (September 10, 2020), 85 FR 57900 (September 16, 2020) (SR–CBOE–2020–086) (increasing connectivity fees without including a cost based justification).

[35] *See id.* at 57909.

[36] *See supra* note 32.

[37] *Id.*

the Exchange and MIAX Pearl Options charged a total of approximately $1,684,000 for that month (also including pro-rated connection charges). This resulted in a profit of $359,000 for that month for a profit margin of 21.3% (a modest 6.9% profit margin increase from July 2021 to October 2021 from 14.4% to 21.3%). The Exchange believes that the Proposed Access Fees are reasonable because they only generate an additional 6.9% of profit margin per-month (reflecting a 21.3% profit margin).[38] The Exchange cautions that this profit margin is likely to fluctuate from month to month based on the uncertainty of predicting how many connections may be purchased from month to month as Members and non-Members are able to add and drop connections at any time based on their own business decisions. This profit margin may also decrease due to the significant inflationary pressure on capital items that the Exchange needs to purchase to maintain the Exchange's technology and systems.[39]

The Exchange and MIAX Pearl Options have been subject to price increases upwards of 30% during the past year on network equipment due to supply chain shortages. This, in turn, results in higher overall costs for ongoing system maintenance, but also to purchase the items necessary to ensure ongoing system resiliency, performance, and determinism. These costs are expected to continue to go up as the U.S. economy continues to struggle with supply chain and inflation related issues.

As mentioned above, the Exchange and MIAX Pearl Options project that the annualized expense for 2021 to provide network connectivity services (all connectivity alternatives) to be approximately $15.9 million per annum or an average of $1,325,000 per month and that these costs are expected to increase not only due to anticipated significant inflationary pressure, but also periodic fee increases by third parties.[40] The Exchange notes that there are material costs associated with providing the infrastructure and headcount to fully support access to the Exchange. The Exchange incurs technology expense related to establishing and maintaining Information Security services, enhanced network monitoring and customer reporting, as well as Regulation SCI mandated processes, associated with its network technology. While some of the expense is fixed, much of the expense is not fixed, and thus increases the cost to the Exchange to provide access services associated with the Proposed Access Fees. For example, new Members to the Exchange may require the purchase of additional hardware to support those Members as well as enhanced monitoring and reporting of customer performance that the Exchange and its affiliates provide. Further, as the total number Members increases, the Exchange and its affiliates may need to increase their data center footprint and consume more power, resulting in increased costs charged by their third-party data center provider. Accordingly, the cost to the Exchange and its affiliates to provide access to its Members is not fixed. The Exchange believes the Proposed Access Fees are a reasonable attempt to offset a portion of the costs to the Exchange associated with providing access to its network infrastructure.

The Exchange only has four primary sources of revenue and cost recovery mechanisms to fund all of its operations: Transaction fees, access fees (which includes the Proposed Access Fees), regulatory fees, and market data fees. Accordingly, the Exchange must cover all of its expenses from these four primary sources of revenue and cost recovery mechanisms. Until recently, the Exchange has operated at a cumulative net annual loss since it launched operations in 2008.[41] This is a result of providing a low cost alternative to attract order flow and encourage market participants to experience the high determinism and resiliency of the Exchange's trading Systems.[42] To do so, the Exchange chose to waive the fees for some non-transaction related services or provide them at a very marginal cost, which was not profitable to the Exchange. This resulted in the Exchange forgoing revenue it could have generated from assessing higher fees.

The Exchange believes that the Proposed Access Fees are fair and reasonable because they will not result in excessive pricing or supra-competitive profit, when comparing the total annual expense that the Exchange projects to incur in connection with providing these access services versus the total annual revenue that the Exchange projects to collect in connection with services associated with the Proposed Access Fees. As mentioned above, for 2021,[43] the total annual expense for MIAX and MIAX Pearl Options for providing the access services associated with the Proposed Access Fees is projected to be approximately $15.9 million, or approximately $1,325,000 per month. This projected total annual expense is comprised of the following, all of which are directly related to the access services associated with the Proposed Access Fees: (1) Third-party expense, relating to fees paid by the Exchange to third parties for certain products and services; and (2) internal expense, relating to the internal costs of the Exchange to provide the services associated with the Proposed Access Fees.[44] As noted above, the Exchange believes it is more appropriate to analyze the Proposed Access Fees utilizing its 2021 revenue and costs, which utilize the same presentation methodology as set forth in the Exchange's previously-issued Audited Unconsolidated Financial Statements.[45] The $15.9 million

[38] The Exchange notes that this profit margin differs from the First and Second Proposed Rule Changes because the Exchange now has the benefit of using a more recent billing cycle under the Proposed Access Fees (October 2021) and comparing it to a baseline month (July 2021) from before the Proposed Access Fees were in effect.

[39] *See* ''Supply chain chaos is already hitting global growth. And it's about to get worse,'' by Holly Ellyatt, CNBC, *available at https://www.cnbc.com/2021/10/18/supply-chain-chaos-is-hitting-global-growth-and-could-get-worse.html* (October 18, 2021); *and* ''There will be things that people can't get, at Christmas, White House warns'' by Jarrett Renshaw and Trevor Hunnicutt, Reuters, *available at https://www.reuters.com/world/us/americans-may-not-get-some-christmas-treats-white-house-officials-warn-2021-10-12/* (October 12, 2021).

[40] For example, on October 20, 2021, ICE Data Services announced a 3.5% price increase effective January 1, 2022 for most services. The price increase by ICE Data Services includes their SFTI network, which is relied on by a majority of market participants, including the Exchange. *See* email from ICE Data Services to the Exchange, dated October 20, 2021. The Exchange further notes that on October 22, 2019, the Exchange was notified by ICE Data Services that it was raising its fees charged to the Exchange by approximately 11% for the SFTI network.

[41] The Exchange has incurred a cumulative loss of $175 million since its inception in 2008 to 2020, the last year for which the Exchange's Form 1 data is available. *See* Exchange's Form 1/A, Application for Registration or Exemption from Registration as a National Securities Exchange, filed July 28, 2021, *available at https://www.sec.gov/Archives/edgar/vprr/2100/21000460.pdf.*

[42] The term ''System'' means the automated trading system used by the Exchange for the trading of securities. *See* Exchange Rule 100.

[43] The Exchange has not yet finalized its 2021 year end results.

[44] The percentage allocations used in this proposed rule change may differ from past filings from the Exchange or its affiliates due to, among other things, changes in expenses charged by third-parties, adjustments to internal resource allocations, and different system architecture of the Exchange as compared to its affiliates.

[45] For example, the Exchange previously noted that all third-party expense described in its prior fee filing was contained in the information technology and communication costs line item under the section titled ''Operating Expenses Incurred Directly or Allocated From Parent,'' in the Exchange's 2019 Form 1 Amendment containing its financial statements for 2018. *See* Securities Exchange Act Release No. 87875 (December 31,

projected total annual expense is directly related to the access services associated with the Proposed Access Fees, and not any other product or service offered by the Exchange or MIAX Pearl Options. It does not include general costs of operating matching engines and other trading technology. No expense amount was allocated twice. Further, the Exchange notes that, with respect to the MIAX Pearl Options expenses included herein, those expenses only cover the MIAX Pearl options market; expenses associated with MIAX Pearl Equities are accounted for separately and are not included within the scope of this filing.

As discussed above, the Exchange conducted an extensive cost review in which the Exchange analyzed nearly every expense item in the Exchange's general expense ledger (this includes over 150 separate and distinct expense items) to determine whether each such expense relates to the access services associated with the Proposed Access Fees, and, if such expense did so relate, what portion (or percentage) of such expense actually supports those services, and thus bears a relationship that is, ''in nature and closeness,'' directly related to those services. In performing this calculation, the Exchange considered other services and to which the expense may be applied and how much of the expense is directly and/or indirectly utilized in providing those other services. The sum of all such portions of expenses represents the total cost of the Exchange to provide access services associated with the Proposed Access Fees.

External Expense Allocations

For 2021, expenses relating to fees paid by the Exchange and MIAX Pearl Options to third-parties for products and services necessary to provide the access services associated with the Proposed Access Fees is projected to be $3.9 million. This includes, but is not limited to, a portion of the fees paid to: (1) Equinix for data center services, including for the primary, secondary, and disaster recovery locations of the Exchange's trading system infrastructure; (2) Zayo Group Holdings, Inc. (''Zayo'') for network services (fiber and bandwidth products and services) linking the Exchange's and its affiliates' office locations in Princeton, New Jersey and Miami, Florida, to all data center locations; (3) Secure Financial Transaction Infrastructure (''SFTI''),[46] which supports connectivity and feeds for the entire U.S. options industry; (4) various other services providers (including Thompson Reuters, NYSE, Nasdaq, and Internap), which provide content, connectivity services, and infrastructure services for critical components of options connectivity and network services; and (5) various other hardware and software providers (including Dell and Cisco, which support the production environment in which Members connect to the network to trade, receive market data, etc.).

For clarity, the Exchange took a conservative approach in determining the expense and the percentage of that expense to be allocated to providing access services in connection with the Proposed Access Fees. Only a portion of all fees paid to such third-parties is included in the third-party expenses described herein, and no expense amount is allocated twice. Accordingly, the Exchange does not allocate its entire information technology and communication costs to the access services associated with the Proposed Access Fees. This may result in the Exchange under allocating an expense to the provision of access services in connection with the Proposed Access Fees and such expenses may actually be higher or increase above what the Exchange utilizes within this proposal. Further, the Exchange notes that expenses associated with its affiliate, MIAX Emerald, are accounted for separately and are not included within the scope of this filing. Further, as part its ongoing assessment of costs and expenses (described above), the Exchange recently conducted a periodic thorough review of its expenses and resource allocations which, in turn, resulted in revised percentage allocations in this filing. Therefore, the percentage allocations used in this proposed rule change may differ from past filings from the Exchange or its affiliates due to, among other things, changes in expenses charged by third-parties, adjustments to internal resource allocations, and different system architecture of the Exchange as compared to its affiliates.

The Exchange believes it is reasonable to allocate such third-party expense described above towards the total cost to the Exchange and MIAX Pearl Options to provide the access services associated with the Proposed Access Fees. In particular, the Exchange believes it is reasonable to allocate the identified portion of the Equinix expense because Equinix operates the data centers (primary, secondary, and disaster recovery) that host the Exchange's network infrastructure. This includes, among other things, the necessary storage space, which continues to expand and increase in cost, power to operate the network infrastructure, and cooling apparatuses to ensure the Exchange's network infrastructure maintains stability. Without these services from Equinix, the Exchange would not be able to operate and support the network and provide the access services associated with the Proposed Access Fees to its Members and their customers. The Exchange did not allocate all of the Equinix expense toward the cost of providing the access services associated with the Proposed Access Fees, only that portion which the Exchange identified as being specifically mapped to providing the access services associated with the Proposed Access Fees. According to the Exchange's calculations, it allocated approximately 62% of the total applicable Equinix expense to providing the access services associated with the Proposed Access Fees. The Exchange believes this allocation is reasonable because it represents the Exchange's actual cost to provide the access services associated with the Proposed Access Fees, and not any other service, as supported by its cost review.[47]

The Exchange believes it is reasonable to allocate the identified portion of the Zayo expense because Zayo provides the internet, fiber and bandwidth connections with respect to the network, linking the Exchange with its affiliates, MIAX Pearl and MIAX Emerald, as well as the data center and disaster recovery locations. As such, all of the trade data, including the billions of messages each day per exchange, flow through Zayo's infrastructure over the Exchange's network. Without these services from Zayo, the Exchange would not be able to operate and support the network and provide the access services associated with the Proposed Access Fees. The Exchange did not allocate all of the Zayo expense toward the cost of providing the access services associated with the Proposed Access Fees, only the portion which the Exchange identified as being specifically mapped to

2019), 85 FR 770 (January 7, 2020) (SR–MIAX–2019–51). Accordingly, the third-party expense described in this filing is attributed to the same line item for the Exchange's 2021 Form 1 Amendment, which will be filed in 2022.

[46] *See supra* note 40.

[47] As noted above, the percentage allocations used in this proposed rule change may differ from past filings from the Exchange or its affiliates due to, among other things, changes in expenses charged by third-parties, adjustments to internal resource allocations, and different system architecture of the Exchange as compared to its affiliates. Again, as part its ongoing assessment of costs and expenses, the Exchange recently conducted a periodic thorough review of its expenses and resource allocations which, in turn, resulted in a revised percentage allocations in this filing.

providing the Proposed Access Fees. According to the Exchange's calculations, it allocated approximately 62% of the total applicable Zayo expense to providing the access services associated with the Proposed Access Fees. The Exchange believes this allocation is reasonable because it represents the Exchange's actual cost to provide the access services associated with the Proposed Access Fees, and not any other service, as supported by its cost review.[48]

The Exchange believes it is reasonable to allocate the identified portions of the SFTI expense and various other service providers' (including Thompson Reuters, NYSE, Nasdaq, and Internap) expense because those entities provide connectivity and feeds for the entire U.S. options industry, as well as the content, connectivity services, and infrastructure services for critical components of the network. Without these services from SFTI and various other service providers, the Exchange would not be able to operate and support the network and provide access to its Members and their customers. The Exchange did not allocate all of the SFTI and other service providers' expense toward the cost of providing the access services associated with the Proposed Access Fees, only the portions which the Exchange identified as being specifically mapped to providing the access services associated with the Proposed Access Fees. According to the Exchange's calculations, it allocated approximately 75% of the total applicable SFTI and other service providers' expense to providing the access services associated with the Proposed Access Fees. The Exchange believes this allocation is reasonable because it represents the Exchange's actual cost to provide the access services associated with the Proposed Access Fees.[49]

The Exchange believes it is reasonable to allocate the identified portion of the other hardware and software provider expense because this includes costs for dedicated hardware licenses for switches and servers, as well as dedicated software licenses for security monitoring and reporting across the network. Without this hardware and software, the Exchange would not be able to operate and support the network and provide access to its Members and their customers. The Exchange did not allocate all of the hardware and software provider expense toward the cost of providing the access services associated with the Proposed Access Fees, only the portions which the Exchange identified as being specifically mapped to providing the access services associated with the Proposed Access Fees. According to the Exchange's calculations, it allocated approximately 51% of the total applicable hardware and software provider expense to providing the access services associated with the Proposed Access Fees. The Exchange believes this allocation is reasonable because it represents the Exchange's actual cost to provide the access services associated with the Proposed Access Fees.[50]

Internal Expense Allocations

For 2021, total projected internal expenses relating to the Exchange and MIAX Pearl Options providing the access services associated with the Proposed Access Fees are projected to be approximately $12 million. This includes, but is not limited to, costs associated with: (1) Employee compensation and benefits for full-time employees that support the access services associated with the Proposed Access Fees, including staff in network operations, trading operations, development, system operations, business, as well as staff in general corporate departments (such as legal, regulatory, and finance) that support those employees and functions (including an increase as a result of the higher determinism project); (2) depreciation and amortization of hardware and software used to provide the access services associated with the Proposed Access Fees, including equipment, servers, cabling, purchased software and internally developed software used in the production environment to support the network for trading; and (3) occupancy costs for leased office space for staff that provide the access services associated with the Proposed Access Fees. The breakdown of these costs is more fully-described below.

For clarity, and as stated above, the Exchange took a conservative approach in determining the expense and the percentage of that expense to be allocated to providing access services in connection with the Proposed Access Fees. Only a portion of all such internal expenses are included in the internal expense herein, and no expense amount is allocated twice. Accordingly, the Exchange does not allocate its entire costs contained in those items to the access services associated with the Proposed Access Fees. This may result in the Exchange under allocating an expense to the provision of access services in connection with the Proposed Access Fees and such expenses may actually be higher or increase above what the Exchange utilizes within this proposal. Further, as part its ongoing assessment of costs and expenses (described above), the Exchange recently conducted a periodic thorough review of its expenses and resource allocations which, in turn, resulted in a revised percentage allocations in this filing.

The Exchange believes it is reasonable to allocate such internal expenses described above towards the total cost to the Exchange and MIAX Pearl Options to provide the access services associated with the Proposed Access Fees. In particular, the Exchange's and MIAX Pearl Options' combined employee compensation and benefits expense relating to providing the access services associated with the Proposed Access Fees is projected to be $6.1 million, which is only a portion of the approximately $12.6 million (for MIAX) and $9.2 million (for MIAX Pearl Options) total projected expense for employee compensation and benefits. The Exchange believes it is reasonable to allocate the identified portion of such expense because this includes the time spent by employees of several departments, including Technology, Back Office, Systems Operations, Networking, Business Strategy Development (who create the business requirement documents that the Technology staff use to develop network features and enhancements), Trade Operations, Finance (who provide billing and accounting services relating to the network), and Legal (who provide legal services relating to the network, such as rule filings and various license agreements and other contracts). As part of the extensive cost review conducted by the Exchange, the Exchange reviewed the amount of time spent by employees on matters relating to the provision of access services associated with the Proposed Access Fees. Without these employees, the Exchange would not be able to provide the access services associated with the Proposed Access Fees to its Members and their customers. The Exchange did not allocate all of the employee compensation and benefits expense toward the cost of the access services associated with the Proposed Access Fees, only the portions which the Exchange identified as being specifically mapped to providing the access services associated with the Proposed Access Fees. According to the Exchange's calculations, it allocated

[48] *Id.*

[49] *Id. See also supra* note 40 (regarding SFTI's announced fee increases).

[50] *See supra* note 47.

approximately 28% of the total applicable employee compensation and benefits expense to providing the access services associated with the Proposed Access Fees. The Exchange believes this allocation is reasonable because it represents the Exchange's actual cost to provide the access services associated with the Proposed Access Fees, and not any other service, as supported by its cost review.[51]

The Exchange's and MIAX Pearl Options' depreciation and amortization expense relating to providing the services associated with the Proposed Access Fees is projected to be $5.3 million, which is only a portion of the $4.8 million (for MIAX) and $2.9 million (for MIAX Pearl Options) total projected expense for depreciation and amortization. The Exchange believes it is reasonable to allocate the identified portion of such expense because such expense includes the actual cost of the computer equipment, such as dedicated servers, computers, laptops, monitors, information security appliances and storage, and network switching infrastructure equipment, including switches and taps that were purchased to operate and support the network and provide the access services associated with the Proposed Access Fees. Without this equipment, the Exchange would not be able to operate the network and provide the access services associated with the Proposed Access Fees to its Members and their customers. The Exchange did not allocate all of the depreciation and amortization expense toward the cost of providing the access services associated with the Proposed Access Fees, only the portion which the Exchange identified as being specifically mapped to providing the access services associated with the Proposed Access Fees. According to the Exchange's calculations, it allocated approximately 70% of the total applicable depreciation and amortization expense to providing the access services associated with the Proposed Access Fees, as these access services would not be possible without relying on such. The Exchange believes this allocation is reasonable because it represents the Exchange's actual cost to provide the access services associated with the Proposed Access Fees, and not any other service, as supported by its cost review.[52]

The Exchange's and MIAX Pearl Options' occupancy expense relating to providing the services associated with the Proposed Access Fees is projected to be approximately $0.6 million, which is only a portion of the $0.6 million (for MIAX) and $0.5 million (for MIAX Pearl Options) total projected expense for occupancy. The Exchange believes it is reasonable to allocate the identified portion of such expense because such expense represents the portion of the Exchange's cost to rent and maintain a physical location for the Exchange's staff who operate and support the network, including providing the access services associated with the Proposed Access Fees. This amount consists primarily of rent for the Exchange's Princeton, New Jersey office, as well as various related costs, such as physical security, property management fees, property taxes, and utilities. The Exchange operates its Network Operations Center (''NOC'') and Security Operations Center (''SOC'') from its Princeton, New Jersey office location. A centralized office space is required to house the staff that operates and supports the network. The Exchange currently has approximately 200 employees. Approximately two-thirds of the Exchange's staff are in the Technology department, and the majority of those staff have some role in the operation and performance of the access services associated with the Proposed Access Fees. Accordingly, the Exchange believes it is reasonable to allocate the identified portion of its occupancy expense because such amount represents the Exchange's actual cost to house the equipment and personnel who operate and support the Exchange's network infrastructure and the access services associated with the Proposed Access Fees. The Exchange did not allocate all of the occupancy expense toward the cost of providing the access services associated with the Proposed Access Fees, only the portion which the Exchange identified as being specifically mapped to operating and supporting the network. According to the Exchange's calculations, it allocated approximately 53% of the total applicable occupancy expense to providing the access services associated with the Proposed Access Fees. The Exchange believes this allocation is reasonable because it represents the Exchange's cost to provide the access services associated with the Proposed Access Fees, and not any other service, as supported by its cost review.[53]

The Exchange notes that a material portion of its total overall expense is allocated to the provision of access services (including connectivity, ports, and trading permits). The Exchange believes this is reasonable and in line, as the Exchange operates a technology-based business that differentiates itself from its competitors based on its more deterministic and resilient trading systems that rely on access to a high performance network, resulting in significant technology expense. Over two-thirds of Exchange staff are technology-related employees. The majority of the Exchange's expense is technology-based. As described above, the Exchange and MIAX Pearl Options have only four primary sources of fees to recover their costs; thus, the Exchange believes it is reasonable to allocate a material portion of its total overall expense towards access fees.

Based on the above, the Exchange believes that its provision of access services associated with the Proposed Access Fees will not result in excessive pricing or supra-competitive profit. As discussed above, the Exchange projects that its annualized expense for 2021 to provide network connectivity services (all connectivity alternatives) to be approximately $15.9 million per annum or an average of $1,325,000 per month. The Exchange implemented the Proposed Access Fees on August 1, 2021. For July 2021, prior to the Proposed Access Fees, Exchange Members and non-Members purchased a total of 156 10Gb ULL connections for which the Exchange and MIAX Pearl Options charged approximately $1,547,620. This resulted in a profit of $222,620 (a profit margin of 14.4%) for that month (including pro-rated charges). For the month of October 2021, which includes the tiered 10Gb ULL connectivity fees pursuant to the Proposed Access Fees, the Exchange and MIAX Pearl Options had Members and non-Members purchasing a total of 154 10Gb ULL connections for which the Exchange and MIAX Pearl Options charged a total of approximately $1,684,000 (including pro-rated charges). This resulted in a profit of $359,000 for that month for a profit margin of 21.3% (a modest 6.9% profit margin increase from July 2021 to October 2021 from 14.4% to 21.3%). The Exchange believes that the Proposed Access Fees are reasonable because they only generate an additional 6.9% of profit margin per month (reflecting a 21.3% profit margin).[54] The Exchange believes this modest increase in profit margin will allow it to continue to recoup its expenses and continue to invest in its technology infrastructure. Therefore, the Exchange also believes that this proposed profit margin increase is

[51] *Id.*

[52] *Id.*

[53] *Id.*

[54] *See supra* note 32.

reasonable because it represents a reasonable rate of return.

Again, the Exchange cautions that this profit margin may fluctuate from month to month based in the uncertainty of predicting how many connections may be purchased from month to month as Members and non-Members are free to add and drop connections at any time based on their own business decisions. Notwithstanding that the revenue (and profit margin) may vary from month to month due to changes in connections and to changes to the Exchange's expenses, the number of connections has not materially changed over the prior months. Consequently, the Exchange believes that the months it has used as a baseline to perform its assessment are representative of reasonably anticipated costs and expenses. This profit margin may also decrease due to the significant inflationary pressure on capital items that it needs to purchase to maintain the Exchange's technology and systems.[55] Accordingly, the Exchange believes its total projected revenue for the providing the access services associated with the Proposed Access Fees will not result in excessive pricing or supra-competitive profit.

The Exchange believes that conducting the above analysis on a per month basis is reasonable as the revenue generated from access services subject to the proposed fee generally remains static from month to month. The Exchange also conducted the above analysis on a per month basis to comply with the Commission Staff's Guidance, which requires a baseline analysis to assist in determining whether the proposal generates a supra-competitive profit. This monthly analysis was also provided in response to comment received on prior submissions of this proposed rule change.

The Exchange reiterates that it only has four primary sources of revenue and cost recovery mechanisms: Transaction fees, access fees (which includes the Proposed Access Fees), regulatory fees, and market data fees. Accordingly, the Exchange must cover all of its expenses from these four primary sources of revenue and cost recovery mechanisms. As a result, each of these fees cannot be ''flat'' and cover only the expenses directly related to the fee that is charged. The above revenue and associated profit margin therefore are not solely intended to cover the costs associated with providing access services subject to the Proposed Access Fees.

[55] *See supra* note 39.

The Exchange believes it is reasonable, equitable and not unfairly discriminatory to allocate the respective percentages of each expense category described above towards the total cost to the Exchange of operating and supporting the network, including providing the access services associated with the Proposed Access Fees because the Exchange performed a line-by-line item analysis of nearly every expense of the Exchange, and has determined the expenses that directly relate to providing access to the Exchange. Further, the Exchange notes that, without the specific third-party and internal expense items listed above, the Exchange would not be able to provide the access services associated with the Proposed Access Fees to its Members and their customers. Each of these expense items, including physical hardware, software, employee compensation and benefits, occupancy costs, and the depreciation and amortization of equipment, have been identified through a line-by-line item analysis to be integral to providing access services. The Proposed Access Fees are intended to recover the costs of providing access to the Exchange's System. Accordingly, the Exchange believes that the Proposed Access Fees are fair and reasonable because they do not result in excessive pricing or supra-competitive profit, when comparing the actual costs to the Exchange versus the projected annual revenue from the Proposed Access Fees.

The Proposed Tiered-Pricing Structure Is Not Unfairly Discriminatory and Provides for the Equitable Allocation of Fees, Dues, and Other Charges

The Exchange believes the proposed tiered-pricing structure is reasonable, fair, equitable, and not unfairly discriminatory because it will apply to all Members and non-Members in the same manner based on the amount of 10Gb ULL connectivity they require based on their own business decisions and usage of Exchange resources. All similarly situated Members and non-Members would be subject to the same fees. The fees do not depend on any distinction between Members and non-Members because they are solely determined by the individual Members' or non-Members' business needs and its impact on Exchange resources.

The proposed tiered-pricing structure is not unfairly discriminatory and provides for the equitable allocation of fees, dues, and other charges because it is designed to encourage Members and non-Members to be more efficient and economical when determining how to connect to the Exchange and the amount of the fees are based on the number of connections a Member or non-Member utilizes. Charging an incrementally higher fee to a Member or non-Member that utilizes numerous connections is directly related to the increased costs the Exchange incurs in providing and maintaining those additional connections. The proposed tiered pricing structure should also enable the Exchange to better monitor and provide access to the Exchange's network to ensure sufficient capacity and headroom in the System.

The Exchange believes that the proposal to move to a tiered-pricing structure for its 10Gb ULL connections is reasonable, equitably allocated and not unfairly discriminatory because the majority of Members and non-Members that purchase 10Gb ULL connections will either save money or pay the same amount after the tiered-pricing structure is implemented. After the effective date of the First Proposed Rule Change on August 1, 2021, approximately 80% of the firms that purchased at least one 10Gb ULL connection experienced a decrease in their monthly connectivity fees while only approximately 20% of firms experienced an increase in their monthly connectivity fees as a result of the proposed tiered-pricing structure when compared to the flat monthly fee structure. To illustrate, firms that purchase only one 10Gb ULL connection per month used to pay the flat rate of $10,000 per month for that one 10Gb ULL connection. Pursuant to the proposed tiered-pricing structure, these firms now pay $9,000 per month for that same one 10Gb ULL connection, saving $1,000 per month or $12,000 annually. Further, firms that purchase two 10Gb ULL connections per month previously paid a flat rate of $20,000 per month ($10,000 × 2) for those two 10Gb ULL connections. Pursuant to the proposed tiered-pricing structure, these firms now pay $18,000 per month ($9,000 × 2) for those two 10Gb ULL connections, saving $2,000 per month or $24,000 annually.

To achieve a consistent, premium network performance, the Exchange must build out and continue to maintain a network that has the capacity to handle the message rate requirements of not only firms that consume minimal Exchange connectivity resources, but also those firms that most heavily consume Exchange connectivity resources, network consumers, and purchasers of 10Gb ULL connectivity. 10Gb ULL connectivity is not an unlimited resource as the Exchange needs to purchase additional equipment to satisfy requests for additional connections. The Exchange also needs

to provide personnel to set up new connections, service requests related to adding new and/or deleting existing connections, respond to performance queries from, and to maintain those connections on behalf of Members and non-Members. Also, those firms that utilize 10Gb ULL connectivity typically generate a disproportionate amount of messages and order traffic, usually billions per day across the Exchange. These billions of messages per day consume the Exchange's resources and significantly contribute to the overall network connectivity expense for storage and network transport capabilities. The Exchange also has to purchase additional storage capacity on an ongoing basis to ensure it has sufficient capacity to store these messages as part of it surveillance program and to satisfy its record keeping requirements under the Exchange Act.[56] Thus, as the number of connections an entity has increases, certain other costs incurred by the Exchange that are correlated to, though not directly affected by, connection costs (*e.g.,* storage costs, surveillance costs, service expenses) also increase.

The Exchange sought to design the proposed tiered-pricing structure to set the amount of the fees to relate to the number of connections a firm purchases. The more connections purchased by a firm likely results in greater expenditure of Exchange resources and increased cost to the Exchange. With this in mind, the Exchange proposes to decrease the monthly fees for those firms who connect to the Exchange as part of their best execution obligations and generally tend to send the least amount of orders and messages over those connections. The Exchange notes that firms that primarily route orders seeking best execution generally only purchase a limited number of connections. Those firms also generally send fewer orders and messages over those connections, resulting in less strain on Exchange resources. Therefore, the connectivity costs will likely be lower for these firms based on the proposed tiered-pricing structure.

On a similar note, the Exchange proposes to increase the fee for those firms that purchase more connections resulting in greater expenditure of Exchange resources and increased cost to the Exchange. The Exchange notes that these firms that purchase more than two to four 10Gb ULL connections essentially do so for competitive reasons amongst themselves and choose to utilize numerous connections based on their business needs and desire to attempt to access the market quicker by using the connection with the least amount of latency. These firms are generally engaged in sending liquidity removing orders to the Exchange and seek to add more connections so they can access resting liquidity ahead of their competitors. For instance, a Member may have just sent numerous messages and/or orders over one of their 10Gb ULL connections that are in queue to be processed. That same Member then seeks to enter an order to remove liquidity from the Exchange's Book. That Member may choose to send that order over one or more of their other 10Gb ULL connections with less message and/or order traffic to ensure that their liquidity taking order accesses the Exchange quicker because that connection's queue is shorter. These firms also tend to frequently add and drop connections mid-month to determine which connections have the least latency, which results in increased costs to the Exchange to frequently make changes in the data center and provide the additional technical and personnel support necessary to satisfy these requests.

The firms that engage in the above-described liquidity removing and advanced trading strategies typically require multiple connections and, therefore, generate higher costs by utilizing more of the Exchange's resources. Those firms may also conduct other latency measurements over their connections and drop and simultaneously add connections mid-month based on their own assessment of their performance. This results in Exchange staff processing such requests, potentially purchasing additional equipment, and performing the necessary network engineering to replace those connections in the data center. Therefore, the Exchange believes it is equitable for these firms to experience increased connectivity costs based on their disproportionate pull on Exchange resources to provide the additional connectivity.

In addition, the proposed tiered-pricing structure is equitable because it is designed to encourage Members and non-Members to be more efficient and economical when determining how to connect to the Exchange. Section 6(b)(5) of the Exchange Act requires the Exchange to provide access on terms that are not unfairly discriminatory.[57] As stated above, 10Gb ULL connectivity is not an unlimited resource and the Exchange's network is limited in the amount of connections it can provide. However, the Exchange must accommodate requests for additional connectivity and access to the Exchange's System to ensure that the Exchange is able to provide access on non-discriminatory terms and ensure sufficient capacity and headroom in the System. To accommodate requests for additional connectivity on top of current network capacity constraints, requires that the Exchange purchase additional equipment to satisfy these requests. The Exchange also needs to provide personnel to set up new connections and to maintain those connections on behalf of Members and non-Members. The proposed tiered-pricing structure is equitable because it is designed to encourage Members and non-Members to be more efficient and economical in selecting the amount of connectivity they request while balancing that against the Exchange's increased expenses when expanding its network to accommodate additional connectivity.

The Proposed Fees Are Reasonable When Compared to the Fees of Other Options Exchanges With Similar Market Share

The Exchange does not have visibility into other equities exchanges' costs to provide connectivity or their fee markup over those costs, and therefore cannot use other exchanges' connectivity fees as a benchmark to determine a reasonable markup over the costs of providing connectivity. Nevertheless, the Exchange believes the other exchanges' connectivity fees are a useful example of alternative approaches to providing and charging for connectivity. To that end, the Exchange believes the proposed tiered-pricing structure for 10Gb ULL connections is reasonable because the proposed highest tier is still less than fees charged for similar connectivity provided by other options exchanges with comparable market shares. For example, NASDAQ (equity options market share of 8.88% as of November 26, 2021 for the month of November) [58] charges a monthly fee of $10,000 per 10Gb fiber connection and $15,000 per 10Gb Ultra fiber connection.[59] The highest tier of the Exchange's proposed fee structure for a 10Gb ULL connection is $13,000 for the fifth and subsequent connections, which

[56] 17 CFR 240.17a–1 (recordkeeping rule for national securities exchanges, national securities associations, registered clearing agencies and the Municipal Securities Rulemaking Board).

[57] 15 U.S.C. 78f(b)(5).

[58] *See* ''The market at a glance,'' *available at https://www.miaxoptions.com/* (last visited November 26, 2021).

[59] *See* NASDAQ Rules, General 8: Connectivity, Section 1. Co-Location Services.

is $2,000 per month less than NASDAQ and, unlike NASDAQ, the Exchange does not charge installation fees. For market participants with fewer connections, the difference is even more stark. For a market participant with two connections to the Exchange and two connections to NASDAQ, the difference in connection fees would be $12,000 per month. The Exchange notes that the same connectivity fees described above for NASDAQ also apply to its affiliates, ISE [60] (equity options market share of 7.96% as of November 26, 2021 for the month of November) [61] and PHLX (equity options market share of 9.31% as of November 26, 2021 for the month of November).[62] Amex (equity options market share of 5.05% as of November 26, 2021 for the month of November) [63] charges $15,000 per connection initially plus $22,000 monthly per 10Gb LX LCN circuit connection.[64] Again, the highest tier of the Exchange's proposed fee structure for a 10Gb ULL connection is $9,000 per month lower than the Amex connectivity fee after the first month.

In the each of the above cases, the Exchange's highest tier in the proposed tiered-pricing structure only applies to the fifth and additional connections and is still significantly lower than that of competing options exchanges with similar market share. Despite proposing lower or similar fees to that of competing options exchanges with similar market share, the Exchange believes that it provides a premium network experience to its Members and non-Members via a highly deterministic System, enhanced network monitoring and customer reporting, and a superior network infrastructure than markets with higher market shares and more expensive connectivity alternatives. Each of the connectivity rates in place at competing options exchanges were filed with the Commission for immediate effectiveness and remain in place today.

The Exchange further believes that the Proposed Access Fees are reasonable, equitably allocated and not unfairly discriminatory because, for one 10Gb ULL connection, the Exchange provides each Member or non-Member access to all twenty-four (24) matching engines on MIAX and a vast majority choose to connect to all twenty-four (24) matching engines. The Exchange believes that other exchanges require firms to connect to multiple matching engines.[65]

B. Self-Regulatory Organization's Statement on Burden on Competition

The Exchange does not believe that the proposed rule change will impose any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act.

With respect to intra-market competition, the Exchange does not believe that the proposed rule change would place certain market participants at the Exchange at a relative disadvantage compared to other market participants or affect the ability of such market participants to compete. As stated above, the Exchange does not believe its proposed pricing will impose a barrier to entry to smaller participants and notes that its proposed connectivity pricing structure for its 10Gb ULL connections is associated with relative usage of the various market participants. Further, the majority of firms that purchase 10Gb ULL connections may either save money or pay the same amount after the tiered-pricing structure is implemented. While total cost may be increased for market participants with larger capacity needs or for business/technical preferences, such options provide far more capacity and are purchased by those that consume more resources from the network. Accordingly, the proposed tiered-pricing structure does not favor certain categories of market participants in a manner that would impose an undue burden on competition; rather, the allocation reflects the network resources consumed by the various usage of market participants—lowest bandwidth consuming members pay the least, and highest bandwidth consuming members pay the most, particularly since higher bandwidth consumption translates to higher costs to the Exchange.

The Exchange also does not believe that the proposed rule change will result in any burden on inter-market competition that is not necessary or appropriate in furtherance of the purposes of the Act. As discussed above, options market participants are not forced to connect to all options exchanges. The Exchange operates in a highly competitive environment, and as discussed above, its ability to price access and connectivity is constrained by competition among exchanges and third parties. There are other options markets of which market participants may connect to trade options. There is also a possible range of alternative strategies, including routing to the exchange through another participant or market center or accessing the Exchange indirectly. For example, there are 15 other U.S. options exchanges, which the Exchange must consider in its pricing discipline in order to compete for market participants. In this competitive environment, market participants are free to choose which competing exchange or reseller to use to satisfy their business needs. As a result, the Exchange believes this proposed rule change permits fair competition among national securities exchanges. Accordingly, the Exchange does not believe its proposed fee changes impose any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act.

Regrettably, the Exchange believes that the application of the Guidance to date has adversely affected inter-market competition by impeding the ability of smaller, low cost exchanges to adopt or increase fees for their market data and access services (including connectivity and port products and services). Since the adoption of the Guidance, and even more so recently, it has become harder, particularly for smaller, low cost exchanges, to adopt or increase fees to generate revenue necessary to invest in systems, provide innovative trading products and solutions, and improve competitive standing to the benefit of the affected exchanges' market participants. Although the Staff Guidance has served an important policy goal of improving disclosures and requiring exchanges to justify that their market data and access fee proposals are fair and reasonable, it has also negatively impacted exchanges, and particularly many smaller, low cost exchanges, that seek to adopt or increase fees despite providing enhanced disclosures and rationale to support their proposed fee changes.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others

As described above, the Exchange received one comment letter on the First Proposed Rule Change and four

[60] *See* ISE Rules, General 8: Connectivity.

[61] *See supra* note 58.

[62] *See id. See also* PHLX Rules, General 8: Connectivity.

[63] *See supra* note 58.

[64] *See* Amex Fee Schedule, Section IV.

[65] *See* Specialized Quote Interface Specification, Nasdaq PHLX, Nasdaq Options Market, Nasdaq BX Options, Version 6.5a, Section 2, Architecture (revised August 16, 2019), *available at http://www.nasdaqtrader.com/content/technicalsupport/specifications/TradingProducts/SQF6.5a-2019-Aug.pdf.* The Exchange notes that it is unclear whether the NASDAQ exchanges include connectivity to each matching engine for the single fee or charge per connection, per matching engine. *See also* NYSE Technology FAQ and Best Practices: Options, Section 5.1 (How many matching engines are used by each exchange?) (September 2020). The Exchange notes that NYSE provides a link to an Excel file detailing the number of matching engines per options exchange, with Arca and Amex having 19 and 17 matching engines, respectively.

comment letters on the Second Proposed Rule Change.[66] The Exchange responded to the comment letters in the Third Proposed Rule Change and repeats its response in is filing. No comment letters were received in response to the Third Proposed Rule Change.

HMA Letter

The HMA Letter does not raise specific issues with the First or Second Proposed Rule Changes. Instead the HMA Letter is generally critical of the exchange fee filing process contained in Section 19(b)(3)(A)(ii) of the Act,[67] and Rule 19b–4(f)(2) thereunder,[68] and other exchanges' fee filings in recent years. The HMA Letter, however, applauds the level of disclosure the Exchange included in the First and Second Proposed Rule Changes and was supportive of the efforts made by the Exchange and its affiliates to provide transparency and justify their proposed fees. The HMA Letter specifically notes that:

''MIAX has repeatedly filed to change its connectivity fees in a way that will materially lower costs for many users, while increasing the costs for some of its heaviest of users. These filings have been withdrawn and repeatedly refiled. Each time, however, the filings contain significantly greater information about who is impacted and how than other filings that have been permitted to take effect without suspension. For example, MIAX detailed the associated projected revenues generated from the connectivity fees by user class, again in a clear attempt to comply with the SRO Fee Filing Guidance.'' [69]

As the HMA Letter notes, the Exchange refiled its same fee proposals to include significantly greater information about who is impacted and how, primarily at the request of the Commission Staff and in response to comments. The Exchange is again refiling its proposal to include more information surrounding the proposed fees and to respond to commenters.

SIG Letter 2

SIG Letter 2 argues that the Exchange, in withdrawing the First Proposed Rule Change and refiling the Second Proposed Rule Change, ''improperly circumvent[ed] the procedural protections embedded in Exchange Act Section 19(b)(3)(C), and subvert[ed] the balance of interests upheld therein.'' [70] SIG's assertion that the Exchange's entire reason for withdrawing and refiling was to subvert the protections of the Exchange Act are entirely without merit. The Exchange withdrew the First Proposed Rule Change and replaced it with the Second Proposed Rule Change in good faith to provide additional justification and explanation for the proposed fee changes and did so in compliance with the Exchange Act. The same is true in this filing, where the Exchange withdrew the Second Proposed Rule Change and submitted this filing to provide additional justification and explanation for the proposed fee changes and directly responds to certain points raised in SIG Letters 1, 2, and 3, as well as the SIFMA Letter submitted on the First and Second Proposed Rule Changes.

As SIG well knows, exchanges are able withdraw and refile various proposals (including fee changes and other rule changes) with the Commission for a multitude of reasons, not the least of which is to address feedback and comments from market participants and Commission Staff. The Exchange is well within the bounds of the Act and the rules and regulations thereunder to withdraw a proposed rule change and replace it with a new proposed rule change in good faith and to enhance the filing to ensure it complies with the requirements of the Act.

SIG Letters 1 and 3

As an initial matter, SIG Letter 1 cites Rule 700(b)(3) of the Commission's Rules of Fair Practice which places ''the burden to demonstrate that a proposed rule change is consistent with the Act on the self-regulatory organization that proposed the rule change'' and states that a ''mere assertion that the proposed rule change is consistent with those requirements . . . is not sufficient.'' [71] SIG Letter 1's assertion that the Exchange has not met this burden is without merit, especially considering the overwhelming amounts of revenue and cost information the Exchange included in the First and Second Proposed Rule Changes and this filing.

Until recently, the Exchange operated at a net annual loss since it launched operations in 2008.[72] As stated above, the Exchange believes that exchanges in setting fees of all types should meet very high standards of transparency to demonstrate why each new fee or fee increase meets the requirements of the Act that fees be reasonable, equitably allocated, not unfairly discriminatory, and not create an undue burden on competition among market participants. The Exchange believes this high standard is especially important when an exchange imposes various access fees for market participants to access an exchange's marketplace. The Exchange believes it has achieved this standard in this filing and in the First Proposed Rule Change, Second Proposed Rule Change. Similar justifications for the proposed fee change included in the First and Second Proposed Rule Changes, but also in this filing, were previously included in similar fee changes filed by the Exchange and its affiliates, MIAX Emerald and MIAX Pearl Options, and SIG did not submit a comment letter on those filings.[73] Those filings were not suspended by the Commission and continue to remain in effect. The justification included in each of the prior filings was the result of numerous withdrawals and re-filings of the proposals to address comments received from Commission Staff over many months. The Exchange and its affiliates have worked diligently with Commission Staff on ensuring the justification included in past fee filings fully support an assertion that those fee changes are consistent with the Act.[74]

[66] *See supra* note 9.

[67] 15 U.S.C. 78s(b)(3)(A)(ii).

[68] 17 CFR 240.19b–4.

[69] *See* HMA Letter, *supra* note 9.

[70] *See* SIG Letter 2, *supra* note 9.

[71] 17 CFR 201.700(b)(3).

[72] *See supra* note 41.

[73] *See* Securities Exchange Act Release Nos. 91858 (May 12, 2021), 86 FR 26967 (May 18, 2021) (SR–PEARL–2021–23) (Notice of Filing and Immediate Effectiveness of a Proposed Rule Change to Amend the MIAX Pearl Fee Schedule to Remove the Cap on the Number of Additional Limited Service Ports Available to Market Makers); 91460 (April 2, 2021), 86 FR 18349 (April 8, 2021) (SR–EMERALD–2021–11) (Notice of Filing and Immediate Effectiveness of a Proposed Rule Change To Amend Its Fee Schedule To Adopt Port Fees, Increase Certain Network Connectivity Fees, and Increase the Number of Additional Limited Service MIAX Emerald Express Interface Ports Available to Market Makers); *and* 91857 (May 12, 2021), 86 FR 26973 (May 18, 2021) (SR–MIAX–2021–19) (Notice of Filing and Immediate Effectiveness of a Proposed Rule Change To Amend Its Fee Schedule To Remove the Cap on the Number of Additional Limited Service Ports Available to Market Makers).

[74] *See, e.g.,* Securities Exchange Act Release No. 90196 (October 15, 2020), 85 FR 67064 (October 21, 2020) (SR–EMERALD–2020–11) (Notice of Filing and Immediate Effectiveness of a Proposed Rule Change To Amend Its Fee Schedule To Adopt One-Time Membership Application Fees and Monthly Trading Permit Fees). *See* Securities Exchange Act Release Nos. 90601 (December 8, 2020), 85 FR 80864 (December 14, 2020) (SR–EMERALD–2020–18) (re-filing with more detail added in response to Commission Staff's feedback and after withdrawing SR–EMERALD–2020–11); *and* 91033 (February 1, 2021), 86 FR 8455 (February 5, 2021) (SR–EMERALD–2021–03) (re-filing with more detail added in response to Commission Staff's feedback and after withdrawing SR–EMERALD–2020–18). The Exchange initially filed a proposal to remove the cap on the number of additional Limited Service MEO Ports available to Members on April 9, 2021. *See* SR–PEARL–2021–17. On April 22, 2021, the Exchange withdrew SR–PEARL–2021–17 and refiled that proposal (without increasing the actual fee amounts) to provide further clarification regarding the Exchange's revenues, costs, and profitability any time more Limited Service MEO Ports become available, in general, (including

Continued

The Exchange leveraged its past work with Commission Staff to ensure the justification provided herein and in the First and Second Proposed Rule Changes include the same level of detail (or more) as the prior fee changes that survived Commission scrutiny. The Exchange's detailed disclosures in fee filings have also been applauded by one industry group which noted, ''[the Exchange's] filings contain significantly greater information about who is impacted and how than other filings that have been permitted to take effect without suspension.'' [75] That same commenter also noted their ''worry that the Commission's process for reviewing and evaluating exchange filings may be inconsistently applied.'' [76]

Therefore, a finding by the Commission that the Exchange has not met its burden to show that the proposed fee change is consistent with the Act would be different than the Commission's treatment of similar past filings, would create further ambiguity regarding the standards exchange fee filings should satisfy, and is not warranted here.

In addition, the arguments in SIG Letter 1 do not support their claim that the Exchange has not met its burden to show the proposed rule change is consistent with the Act. Prior to, and after submitting the First Proposed Rule Change, the Exchange solicited feedback from its Members, including SIG. SIG relayed their concerns regarding the proposed change. The Exchange then sought to work with SIG to address their concerns and gain a better understanding of the access/connectivity/quoting infrastructure of other exchanges. In response, SIG provided no substantive suggestions on how to amend the First Proposed Rule Change to address their concerns and instead chose to submit three comment letters. One could argue that SIG is using the comment letter process not to raise legitimate regulatory concerns regarding the proposal, but to inhibit or delay proposed fee changes by the Exchange.

Nonetheless, the Exchange has enhanced its cost and revenue analysis and data in this Third [sic] Proposed Rule Change to further justify that the Proposed Access Fees are reasonable in accordance with the Commission Staff's Guidance. Among other things, these enhancements include providing baseline information in the form of data from the month before the Proposed Access Fees became effective.

The Exchange now responds to SIG remaining claims below. SIG Letter 3 first summarizes its arguments made in SIG Letters 1 and 2 and incorporates those arguments by reference. The Exchange responded to the arguments in SIG Letter 2 above. SIG Letter 3 incorporates the following arguments from SIG Letter 1, which the Exchange will first respond to in turn, below:

''(1) The prospect that a member may withdraw from the Exchanges if a fee is too costly is not a basis for asserting that the fee is reasonable; (2) profit margin comparisons do not support the Exchanges' claims that they will not realize a supracompetitive profit, the Exchanges' respective profit margins of 30% (for MIAX and Pearl) and 51% (for Emerald) in relation to connectivity fees are high in any event, and comparisons to competing exchanges' overall operating profit margins are an inapt ''apples-to-oranges'' comparison; (3) the Exchanges provide no support for their claim that their proposed tiered pricing structure is needed to encourage efficiency in connectivity usage; (4) the Exchanges provided no support for their claim that the tiered pricing structure allows them to better monitor connectivity usage, nor that this is an appropriate basis for the pricing structure in any event; (5) the Exchanges' claim that firms who purchase more 10Gb ULL lines generate ''higher'' costs is misleading, and they offered no support for this claim in any event; (6) no other exchange has tiered connectivity pricing; (7) the recoupment of investment for exchange infrastructure has no supporting nexus with the claim that the proposed fees are reasonable, equitably allocated, and not unfairly discriminatory; and (8) the recoupment of investment claim belies the Exchanges' claim of encouraging efficiency in connectivity usage.'' [77]

The Exchange's Examples of Members Terminating Their Exchange Access Shows That Members Have Choice Whether To Connect to an Exchange Based on Fees

SIG asserts that ''the prospect that a member may withdraw from the Exchanges if a fee is too costly is not a basis for asserting that the fee is reasonable.'' [78] SIG misinterprets the Exchange's argument here. The Exchange provided the examples of firms terminating access to certain markets due to fees to support its assertion that firms, including market makers, are not required to connect to all markets and may drop access if fees become too costly for their business models and alternative or substitute forms of connectivity are available to those firms who choose to terminate access. The Commission Staff Guidance also provides that ''[a] statement that substitute products or services are available to market participants in the relevant market (*e.g.,* equities or options) can demonstrate competitive forces if supported by evidence that substitute products or services exist.'' [79] Nonetheless, the Third [sic] Proposed Rule Change no longer makes this assertion as a basis for the proposed fee change and, therefore, the Exchange believes it is not necessary to respond to this portion of SIG Letters 1 and 3.

The Proposed Fees Will Not Result in Excessive Pricing or Supra-Competitive Profit

Next, SIG asserts that the Exchange's ''profit margin comparisons do not support the Exchange's claims that they will not realize a supracompetitive profit,'' that ''the Exchanges' respective profit margins of 30% (for MIAX and Pearl) and 51% (for Emerald) in relation to connectivity fees are high in any event,'' and ''comparisons to competing exchanges' overall operating profit margins are an inapt 'apples-to-oranges' comparison.''

The Exchange has provided ample data that the proposed fees would not result in excessive pricing or a supra-competitive profit. In this Third [sic] Proposed Rule Change, the Exchange no longer utilizes a comparison of its profit margin to that of other options exchanges as a basis that the Proposed Access Fees are reasonable. Rather, the Exchange has enhanced its cost and revenue analysis and data in this Third [sic] Proposed Rule Change to further justify that the Proposed Access Fees are reasonable in accordance with the Commission Staff's Guidance. Therefore, the Exchange believes it is no longer necessary to respond to this portion of SIG Letters 1 and 3.

The Proposed Tiered Pricing Structure Is Not Unfairly Discriminatory

SIG challenges the proposed fees by arguing that ''the Exchange[ ] provide[s] no support for [its] claim that [the] proposed tiered pricing structure is needed to encourage efficiency in connectivity usage and the Exchange[ ]

information regarding the Exchange's methodology for determining the costs and revenues for additional Limited Service MEO Ports). *See* SR–PEARL–2021–20. On May 3, 2021, the Exchange withdrew SR–PEARL–2021–20 and refiled that proposal to further clarify its cost methodology. *See* SR–PEARL–2021–22. On May 10, 2021, the Exchange withdrew SR–PEARL–2021–22 and refiled that proposal as SR–PEARL–2021–23. *See* Securities Exchange Act Release No. 91858 (May 12, 2021), 86 FR 26967 (May 18, 2021) (SR–PEARL–2021–23).

[75] *See* HMA Letter, *supra* note 9.

[76] *Id.* (providing examples where non-transaction fee filings by other exchanges have been permitted to remain effective and not suspended by the Commission despite less disclosure and justification).

[77] *See* SIG Letter 3, *supra* note 9.

[78] *Id.*

[79] *See* Guidance, *supra* note 23.

provided no support for [the] claim that the tiered pricing structure allows them to better monitor connectivity usage, nor that this is an appropriate basis for the pricing structure in any event.'' The Exchange provided additional justification to support that the Proposed Access Fees are equitable and not unfairly discriminatory above in response to SIG's assertions.

Firms That Purchase More 10Gb ULL Generate Higher Exchange Costs

SIG argues that ''the Exchanges' claim that firms who purchase more 10Gb ULL lines generate 'higher' costs is misleading,'' and that the Exchange has ''offered no support for this claim in any event.'' As described above, the Exchange sought to design the proposed tiered-pricing structure to set the amount of the fees to relate to the number of connections a firm purchases and the Exchange believes it provided ample justification for the proposed tiered-pricing structure in the First and Second Proposed Rule Changes. Nonetheless, the Exchange provides additional justification to support that the Proposed Access Fees are equitable and not unfairly discriminatory above in response to SIG's assertions.

The Proposed Tiered-Pricing Structure for 10Gb ULL Connectivity Will Provide Cost Savings for the Majority of Exchange Members

The SIG Letter incorrectly asserts that no other exchange has tiered connectivity pricing. Numerous other exchanges provide tiered fee structures for various other types of access to their platforms, including trading permits and ports.[80] The Exchange provided adequate evidence that most firms would incur cost savings under the Proposed Access Fees in the First and Second Proposed Rule Changes and this filing. Nonetheless, the Exchange believes it provided additional justification to support that the Proposed Access Fees are equitable and not unfairly discriminatory above in response to SIG's assertions.

Recoupment of Exchange Infrastructure Costs

Nowhere in this proposal or in the First Proposed Rule Change did the Exchange assert that it benefits competition to allow a new exchange entrant to recoup their infrastructure costs. Rather, the Exchange asserts above that its ''proposed fees are reasonable, equitably allocated and not unfairly discriminatory because the Exchange, and its affiliates, are still recouping the initial expenditures from building out their systems while the legacy exchanges have already paid for and built their systems.'' The Exchange no longer makes this assertion in this filing and, therefore, does not believe is it necessary to respond to SIG's assertion here.

SIFMA Letter

In sum, the SIFMA Letter asserts that the Exchange has failed to demonstrate that the Proposed Access Fees are reasonable for three reasons:

(i) ''The Exchanges' ''platform competition'' argument that competition for order flow constrains pricing for market data or other products and services exclusively offered by an exchange does not demonstrate that the fees are reasonable.''

(ii) ''. . . order flow competition alone between exchanges does not demonstrate that the fees for the products and services subject to the Proposal are reasonable.''

(iii) ''the Exchanges' argument that the products and services subject to the Proposals are optional does not reflect marketplace reality, nor does it demonstrate that the proposed fees are reasonable.''

The Exchange responds to each of SIFMA's challenges in turn below.

The Exchange Never Set Forth a ''Platform Competition'' Argument

The SIFMA Letter asserts that the Exchange's ''platform competition'' argument that competition for order flow constrains pricing for market data or other products and services exclusively offered by an exchange does not demonstrate that the fees are reasonable.'' [81] The Exchange does not believe it is necessary to respond to this assertion because it has never set forth a ''platform competition'' [82] argument to justify the Proposed Access Fees in the First or Second Proposed Rule Change nor does it do so in this filing.

The Exchange Is Not Arguing That Order Flow Competition Alone Demonstrates That the Proposed Fees Are Reasonable

The SIFMA Letter asserts that ''order flow competition alone between exchanges does not demonstrate that the fees for the products and services subject to the Proposal are reasonable.'' [83] The Exchange never directly asserted in the First or Second Proposed Rule Changes, nor does it do so in this filing, that order flow competition, alone, demonstrated that the Proposed Access Fees are reasonable and has removed any language that could imply this argument from this filing.

Other SIFMA Assertions

SIFMA also challenges or asserts: (i) The substitutability or optionality of 10Gb ULL connections, (ii) whether the Exchange has shown that the fees are equitable and non-discriminatory; (iii) that a tiered pricing structure will impose higher cost on all market participants; (iv) that a tiered pricing structure will encourage market participants to be more economical with the usage; (v) greater number of connections use greater Exchange resources; and (vi) that the Exchange has not provided extensive information regarding its cost data and how it determined it cost analysis. The Exchange believes that these assertions by SIFMA basically echo assertions made in SIG Letters 1 and 3 and that it provided a response to these assertions under its response to SIG above or in provided enhanced transparency and justification in this filing.

III. Suspension of the Proposed Rule Change

Pursuant to Section 19(b)(3)(C) of the Act,[84] at any time within 60 days of the date of filing of a proposed rule change pursuant to Section 19(b)(1) of the Act,[85] the Commission summarily may temporarily suspend the change in the rules of a self-regulatory organization (''SRO'') if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act. As discussed below, the Commission believes a temporary suspension of the proposed rule change is necessary and appropriate to allow for

[80] *See* Cboe Exchange, Inc. Fee Schedule, Logical Connectivity Fees ($750 per port per month for the first 5 BOE/FIX Logical Ports and $800 per port per month for each port over 5; $1,500 per port per month for the first 5 BOE Bulk Logical Ports, $2,500 per port per month for ports 6–30, and $3,000 per port per month for each port over 30); Cboe BXZ Exchange, Inc. Options Fee Schedule, Options Logical Port Fees, Ports with Bulk Quoting Capabilities ($1,500 per port per month for the first and second ports, $2,500 per port per month for three or more); Nasdaq Stock Market LLC, Options 7, Pricing Schedule, Section 3 ($1,500 per port per month for the first 5 SQF ports; $1,000 per port per month for SQF ports 15–20; and $500 per port per month for all SQF ports over 21); NYSE American Options Fee Schedule, Section V.A., Port Fees and NYSE Arca Options Fee Schedule, Port Fees (both charging $450 per port for order/quote entry ports 1–40 and $150 per port for ports 41 and greater).

[81] *See* SIFMA Letter, *supra* note 9.

[82] Pursuant to the Guidance, ''platform theory generally asserts that when a business offers facilities that bring together two or more distinct types of customers, it is the overall return of the platform, rather than the return of any particular fees charged to a type of customer, that should be used to assess the competitiveness of the platform's market.'' *See* Guidance, *supra* note 23.

[83] *See* SIFMA Letter, *supra* note 9.

[84] 15 U.S.C. 78s(b)(3)(C).

[85] 15 U.S.C. 78s(b)(1).

additional analysis of the proposed rule change's consistency with the Act and the rules thereunder.

As the Exchange further details above, the Exchange first filed a proposed rule change proposing fee changes as proposed herein on July 30, 2021, with the proposed fee changes effective beginning August 1, 2021. That proposal, SR–MIAX–2021–35, was published for comment in the **Federal Register** on August 17, 2021.[86] On September 24, 2021 the Exchange withdrew SR–MIAX–2021–35 and filed a proposed rule change proposing fee changes as proposed herein. That proposal, SR–MIAX–2021–41, was published for comment in the **Federal Register** on October 4, 2021.[87] The Commission received four comment letters from three separate commenters on SR–MIAX–2021–41.[88] On November 22, 2021, pursuant to Section 19(b)(3)(C) of the Act, the Commission: (1) Temporarily suspended the proposed rule change; and (2) instituted proceedings to determine whether to approve or disapprove the proposed rule change.[89] On December 1, 2021, the Exchange withdrew SR–MIAX–2021–41 and filed a proposed rule change proposing fee changes as proposed herein. That filing, SR–MIAX–2021–59,[90] was published for comment in the **Federal Register** on December 20, 2021.[91] On January 27, 2022, pursuant to Section 19(b)(3)(C) of the Act, the Commission: (1) Temporarily suspended the proposed rule change (SR–MIAX–2021–59) and (2) instituted proceedings to determine whether to approve or disapprove the proposal.[92] On February 1, 2022, the Exchange withdrew SR–MIAX–2021–59 and filed the instant filing, which is substantially similar.

When exchanges file their proposed rule changes with the Commission, including fee filings like the Exchange's present proposal, they are required to provide a statement supporting the proposal's basis under the Act and the rules and regulations thereunder applicable to the exchange.[93] The instructions to Form 19b–4, on which exchanges file their proposed rule changes, specify that such statement ''should be sufficiently detailed and specific to support a finding that the proposed rule change is consistent with [those] requirements.'' [94]

Among other things, exchange proposed rule changes are subject to Section 6 of the Act, including Sections 6(b)(4), (5), and (8), which requires the rules of an exchange to: (1) Provide for the equitable allocation of reasonable fees among members, issuers, and other persons using the exchange's facilities; [95] (2) perfect the mechanism of a free and open market and a national market system, protect investors and the public interest, and not be designed to permit unfair discrimination between customers, issuers, brokers, or dealers; [96] and (3) not impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act.[97]

In temporarily suspending the Exchange's fee change, the Commission intends to further consider whether the proposal to modify fees for certain connectivity options and implement a tiered pricing fee structure is consistent with the statutory requirements applicable to a national securities exchange under the Act. In particular, the Commission will consider whether the proposed rule change satisfies the standards under the Act and the rules thereunder requiring, among other things, that an exchange's rules provide for the equitable allocation of reasonable fees among members, issuers, and other persons using its facilities; not permit unfair discrimination between customers, issuers, brokers or dealers; and do not impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act.[98]

Therefore, the Commission finds that it is appropriate in the public interest, for the protection of investors, and otherwise in furtherance of the purposes of the Act, to temporarily suspend the proposed rule change.[99]

IV. Proceedings To Determine Whether To Approve or Disapprove the Proposed Rule Change

The Commission is instituting proceedings pursuant to Sections 19(b)(3)(C) [100] and 19(b)(2)(B) [101] of the Act to determine whether the Exchange's proposed rule change should be approved or disapproved. Institution of such proceedings is appropriate at this time in view of the legal and policy issues raised by the proposed rule change. Institution of proceedings does not indicate that the Commission has reached any conclusions with respect to any of the issues involved. Rather, as described below, the Commission seeks and encourages interested persons to provide comments on the proposed rule change to inform the Commission's analysis of whether to approve or disapprove the proposed rule change.

Pursuant to Section 19(b)(2)(B) of the Act,[102] the Commission is providing notice of the grounds for possible disapproval under consideration. The Commission is instituting proceedings to allow for additional analysis of whether the Exchange has sufficiently demonstrated how the proposed rule change is consistent with Sections 6(b)(4),[103] 6(b)(5),[104] and 6(b)(8) [105] of the Act. Section 6(b)(4) of the Act requires that the rules of a national securities exchange provide for the equitable allocation of reasonable dues, fees, and other charges among its members and issuers and other persons using its facilities. Section 6(b)(5) of the Act requires that the rules of a national securities exchange be designed, among other things, to promote just and

[86] *See* Securities Exchange Act Release No. 92643 (August 11, 2021), 86 FR 46034 (August 17, 2021) (SR–MIAX–2021–35). The Commission received one comment letter on that proposal. Comment on SR–MIAX–2021–35 can be found at: *https://www.sec.gov/comments/sr-miax-2021-35/srmiax202135.htm.*

[87] *See* Securities Exchange Act Release No. 93165 (September 28, 2021), 86 FR 54750 (October 4, 2021) (SR–MIAX–2021–41).

[88] Comment on SR–MIAX–2021–41 can be found at: *https://www.sec.gov/comments/sr-miax-2021-41/srmiax202141.htm.*

[89] *See* Securities Exchange Act Release No. 93639 (November 22, 2021), 86 FR 67758 (November 29, 2021).

[90] *See* text accompanying *supra* note 12.

[91] *See* Securities Exchange Act Release No. 93775 (December 14, 2021), 86 FR 71996 (December 20, 2021).

[92] *See* Securities Exchange Act Release No. 94088 (January 27, 2022), 87 FR 5901 (February 2, 2022).

[93] *See* 17 CFR 240.19b–4 (Item 3 entitled ''Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change'').

[94] *Id.*

[95] 15 U.S.C. 78f(b)(4).

[96] 15 U.S.C. 78f(b)(5).

[97] 15 U.S.C. 78f(b)(8).

[98] *Se* 15 U.S.C. 78f(b)(4), (5), and (8), respectively.

[99] For purposes of temporarily suspending the proposed rule change, the Commission has considered the proposed rule's impact on efficiency, competition, and capital formation. *See* 15 U.S.C. 78c(f).

[100] 15 U.S.C. 78s(b)(3)(C). Once the Commission temporarily suspends a proposed rule change, Section 19(b)(3)(C) of the Act requires that the Commission institute proceedings under Section 19(b)(2)(B) to determine whether a proposed rule change should be approved or disapproved.

[101] 15 U.S.C. 78s(b)(2)(B).

[102] 15 U.S.C. 78s(b)(2)(B). Section 19(b)(2)(B) of the Act also provides that proceedings to determine whether to disapprove a proposed rule change must be concluded within 180 days of the date of publication of notice of the filing of the proposed rule change. *See id.* The time for conclusion of the proceedings may be extended for up to 60 days if the Commission finds good cause for such extension and publishes its reasons for so finding, or if the exchange consents to the longer period. *See id.*

[103] 15 U.S.C. 78f(b)(4).

[104] 15 U.S.C. 78f(b)(5).

[105] 15 U.S.C. 78f(b)(8).

equitable principles of trade, to remove impediments to and perfect the mechanism of a free and open market and a national market system and, in general, to protect investors and the public interest, and not be designed to permit unfair discrimination between customers, issuers, brokers, or dealers. Section 6(b)(8) of the Act requires that the rules of a national securities exchange not impose any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act.

The Commission asks that commenters address the sufficiency of the Exchange's statements in support of the proposal, in addition to any other comments they may wish to submit about the proposed rule change. In particular, the Commission seeks comment on the following aspects of the proposal and asks commenters to submit data where appropriate to support their views:

1. *Cost Estimates and Allocation.* The Exchange states that it is not asserting that the Proposed Access Fees are constrained by competitive forces, but rather set forth a ''cost-plus model,'' employing a ''conservative methodology'' that ''strictly considers only those costs that are most clearly directly related to the provision and maintenance of 10Gb ULL connectivity to estimate such costs.'' [106] Setting forth its costs in providing 10Gb ULL connectivity, and as summarized in greater detail above, the Exchange projects $15.9 million in aggregate (between the Exchange and MIAX Pearl Options) annual estimated costs for 2021 as the sum of: (1) $3.9 million in third-party expenses paid in total to Equinix (62% of the total applicable expense) for data center services; Zayo Group Holdings, for network services (62% of the total applicable expense); SFTI for connectivity support, Thompson Reuters, NYSE, Nasdaq, and Internap and others (75% of the total applicable expense) for content, connectivity services, and infrastructure services; and various other hardware and software providers (51% of the total applicable expense) supporting the production environment, and (2) $12 million in internal expenses, allocated to (a) employee compensation and benefit costs ($6.1 million, approximately 28% of the Exchange's and MIAX Pearl Options' total applicable employee compensation and benefits expense); (b) depreciation and amortization ($5.3 million, approximately 70% of the Exchange's and MIAX Pearl Options' total applicable depreciation and amortization expense); and (c) occupancy costs ($0.6 million, approximately 53% of the Exchange's and MIAX Pearl Options' total applicable occupancy expense). Do commenters believe that the Exchange has provided sufficient detail about how it determined which costs are most clearly directly associated with providing and maintaining 10Gb ULL connectivity? The Exchange describes a ''proprietary'' process involving all Exchange department heads, including the finance department and numerous meetings between the Exchange's Chief Information Officer, Chief Financial Officer, Head of Strategic Planning and Operations, Chief Technology Officer, various members of the Legal Department, and other group leaders, but do not specify further what principles were applied in making these determinations or arriving at particular allocations. Do commenters believe further explanation is necessary? For employee compensation and benefit costs, for example, the Exchange calculated an allocation of employee time in several departments, including Technology, Back Office, Systems Operations, Networking, Business Strategy Development, Trade Operations, Finance, and Legal, but do not provide the job titles and salaries of persons whose time was accounted for, or explain the methodology used to determine how much of an employee's time is devoted to that specific activity. What are commenters' views on whether the Exchange has provided sufficient detail on the identity and nature of services provided by third parties? Across all of the Exchange's projected costs, what are commenters' views on whether the Exchange has provided sufficient detail on the elements that go into connectivity costs, including how shared costs are allocated and attributed to connectivity expenses, to permit an independent review and assessment of the reasonableness of purported cost-based fees and the corresponding profit margin thereon? Should the Exchange be required to identify for what services or fees the remaining percentage of un-allocated expenses are attributable to (*e.g.,* what services or fees are associated with the 30% of applicable depreciation and amortization expenses the Exchange does not allocate to the Proposed Access Fees)? Do commenters believe that the costs projected for 2021 are generally representative of expected costs going forward (to the extent commenters consider 2021 to be a typical or atypical year), or should an exchange present an estimated range of costs with an explanation of how profit margins could vary along the range of estimated costs? Should the Exchange use cost projections or actual costs estimated for 2021 in a filing made in 2022, or make cost projections for 2022?

2. *Revenue Estimates and Profit Margin Range.* The Exchange provides a single monthly revenue figure as the basis for calculating the profit margin of 21.3%. Do commenters believe this is reasonable? If not, why not? The Exchange states that their proposed fee structure is ''designed to cover its costs with a limited return in excess of such costs,'' and that ''revenue and associated profit margin [ ] are not solely intended to cover the costs associated with providing access services subject to the Proposed Access Fees,'' and believes that a 21.3% margin is a limited return over such costs.[107] The profit margin is also dependent on the accuracy of the cost projections which, if inflated (intentionally or unintentionally), may render the projected profit margin meaningless. The Exchange acknowledges that this margin may fluctuate from month to month due to changes in the number of connections purchased, and that costs may increase. They also state that the number of connections has not materially changed over the prior months and so the months that the Exchange has used as a baseline to perform its assessment are representative of reasonably anticipated costs and expenses.[108] The Exchange does not account for the possibility of cost decreases, however. What are commenters' views on the extent to which actual costs (or revenues) deviate from projected costs (or revenues)? Do commenters believe that the Exchange's methodology for estimating the profit margin is reasonable? Should the Exchange provide a range of profit margins that they believe are reasonably possible, and the reasons therefor?

3. *Reasonable Rate of Return.* Do commenters agree with the Exchange that its expected 21.3% profit margin would constitute a reasonable rate of return over cost for 10GB ULL connectivity? If not, what would commenters consider to be a reasonable rate of return and/or what methodology would they consider to be appropriate for determining a reasonable rate of return? What are commenters' views regarding what factors should be considered in determining what constitutes a reasonable rate of return for 10Gb ULL connectivity fees? Do commenters believe it relevant to an

[106] *See supra* Section II.A.2.

[107] *See supra* Section II.A.2.

[108] *See id.*

assessment of reasonableness that the Exchange's proposed fees for 10Gb ULL connections, even at the highest tier, are lower than those of other options exchanges to which the Exchange has compared the Proposed Access Fees? Should an assessment of reasonable rate of return include consideration of factors other than costs; and if so, what factors should be considered, and why?

4. *Periodic Reevaluation.* The Exchange has addressed whether it believes a material deviation from the anticipated profit margin would warrant the need to make a rule filing pursuant to Section 19(b) of the Act to increase or decrease the fees accordingly, stating that ''[a]ny requirement that an exchange should conduct a periodic re-evaluation on a set timeline of its cost justification and amend its fees accordingly should be established by the Commission holistically, applied to all exchanges and not just through pending fee proposals, such as this filing,'' and that ''[i]n order to be fairly applied, such a mandate should be applied to existing access fees as well.'' [109] In light of the impact that the number of subscribers has on connectivity profit margins, and the potential for costs to decrease (or increase) over time, what are commenters' views on the need for exchanges to commit to reevaluate, on an ongoing and periodic basis, their cost-based connectivity fees to ensure that they stay in line with their stated profitability target and do not become unreasonable over time, for example, by failing to adjust for efficiency gains, cost increases or decreases, and changes in subscribers? How formal should that process be, how often should that reevaluation occur, and what metrics and thresholds should be considered? How soon after a new connectivity fee change is implemented should an exchange assess whether its subscriber estimates were accurate and at what threshold should an exchange commit to file a fee change if its estimates were inaccurate? Should an initial review take place within the first 30 days after a connectivity fee is implemented? 60 days? 90 days? Some other period?

5. *Tiered Structure for 10Gb ULL Connections.* The Exchange states that the proposed tiered fee structure is designed to decrease the monthly fees for those firms that connect to the Exchange as part of their best execution obligations and generally tend to send the least amount of orders and messages over those connections, because such firms generally only purchase a limited number of connections, and also ''generally send fewer orders and messages over those connections, resulting in less strain on Exchange resources.'' [110] According to the Exchange, 80% of firms have not experienced a fee increase as a result of the tiered structure. However, firms that purchase five or more connections will see a 30% increase in their fees for each connection above the fourth. Regarding these firms, the Exchange has not asserted that it is 30% more costly for the Exchange to offer such connections to these firms, but instead argues generally that these firms are ''likely'' to result in greater expenditure of Exchange resources and increased cost to the Exchange and that as the number of connections an entity has increases, certain other costs incurred by the Exchange that are correlated to, though not directly affected by, connection costs (*e.g.,* storage costs, surveillance costs, service expenses) also increase.[111] Do commenters believe that the price differences between the tiers are supported by the Exchange's assertions that it set the level of its proposed fees in a manner that it is equitable and not unfairly discriminatory? Do commenters believes the Exchange should demonstrate how the proposed tiered fee levels correlate with tiered costs (*e.g.,* by providing cost information broken down by tier, messaging and order volumes through the additional 10Gb ULL connections by tier, and/or mid-month add/drop of connection rates by tier)? Do commenters believe that the Exchange should provide more detail about the costs that firms purchasing three or more or five or more 10Gb ULL connections impose on the Exchange, to permit an assessment of the Exchange's statement that the Proposed Access Fees ''do not depend on any distinction between Members and non-Members because they are solely determined by the individual Members' or non-Members' business needs and its impact on Exchange resources?'' [112]

Under the Commission's Rules of Practice, the ''burden to demonstrate that a proposed rule change is consistent with the Exchange Act and the rules and regulations issued thereunder . . . is on the [SRO] that proposed the rule change.'' [113] The description of a proposed rule change, its purpose and operation, its effect, and a legal analysis of its consistency with applicable requirements must all be sufficiently detailed and specific to support an affirmative Commission finding,[114] and any failure of an SRO to provide this information may result in the Commission not having a sufficient basis to make an affirmative finding that a proposed rule change is consistent with the Act and the applicable rules and regulations.[115] Moreover, ''unquestioning reliance'' on an SRO's representations in a proposed rule change would not be sufficient to justify Commission approval of a proposed rule change.[116]

The Commission believes it is appropriate to institute proceedings to allow for additional consideration and comment on the issues raised herein, including as to whether the proposal is consistent with the Act, any potential comments or supplemental information provided by the Exchange, and any additional independent analysis by the Commission.

V. Commission's Solicitation of Comments

The Commission requests written views, data, and arguments with respect to the concerns identified above as well as any other relevant concerns. In particular, the Commission invites the written views of interested persons concerning whether the proposal is consistent with Sections 6(b)(4), 6(b)(5), and 6(b)(8), or any other provision of the Act, or the rules and regulations thereunder. The Commission asks that commenters address the sufficiency and merit of the Exchange's statements in support of the proposal, in addition to any other comments they may wish to submit about the proposed rule change. Although there do not appear to be any issues relevant to approval or disapproval that would be facilitated by an oral presentation of views, data, and arguments, the Commission will consider, pursuant to Rule 19b–4, any request for an opportunity to make an oral presentation.[117]

Interested persons are invited to submit written data, views, and arguments regarding whether the proposal should be approved or

[109] *See supra* Section II.A.2.

[110] *See id.*

[111] *See id.*

[112] *See id.*

[113] 17 CFR 201.700(b)(3).

[114] *See id.*

[115] *See id.*

[116] *See Susquehanna Int'l Group, LLP* v. *Securities and Exchange Commission,* 866 F.3d 442, 446–47 (D.C. Cir. 2017) (rejecting the Commission's reliance on an SRO's own determinations without sufficient evidence of the basis for such determinations).

[117] 15 U.S.C. 78s(b)(2). Section 19(b)(2) of the Act grants the Commission flexibility to determine what type of proceeding—either oral or notice and opportunity for written comments—is appropriate for consideration of a particular proposal by an SRO. *See* Securities Acts Amendments of 1975, Report of the Senate Committee on Banking, Housing and Urban Affairs to Accompany S. 249, S. Rep. No. 75, 94th Cong., 1st Sess. 30 (1975).

disapproved by March 15, 2022. Any person who wishes to file a rebuttal to any other person's submission must file that rebuttal by March 29, 2022.

Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's internet comment form (*http://www.sec.gov/rules/sro.shtml*); or
- Send an email to *rule-comments@sec.gov.* Please include File No. SR–MIAX–2022–07 on the subject line.

Paper Comments

- Send paper comments in triplicate to Secretary, Securities and Exchange Commission, 100 F Street NE, Washington, DC 20549–1090.

All submissions should refer to File Number SR–MIAX–2022–07. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's internet website (*http://www.sec.gov/rules/sro.shtml*). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street NE, Washington, DC 20549, on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change. Persons submitting comments are cautioned that we do not redact or edit personal identifying information from comment submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR–MIAX–2022–07 and should be submitted on or before March 15, 2022. Rebuttal comments should be submitted by March 29, 2022.

VI. Conclusion

It is therefore ordered, pursuant to Section 19(b)(3)(C) of the Act,[118] that File Numbers SR–MIAX–2022–07 be, and hereby is, temporarily suspended. In addition, the Commission is instituting proceedings to determine whether the proposed rule change should be approved or disapproved.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[119]

J. Matthew DeLesDernier,

Assistant Secretary.

[FR Doc. 2022–03651 Filed 2–18–22; 8:45 am]

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[118] 15 U.S.C. 78s(b)(3)(C).

[119] 17 CFR 200.30–3(a)(12), (57) and (58).

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–94253; File No. SR–CBOE–2021–068]

Self-Regulatory Organizations; Cboe Exchange, Inc.; Order Granting Approval of a Proposed Rule Change To Adopt a Modified Trading Schedule for Holidays

February 15, 2022.

I. Introduction

On November 15, 2021, Cboe Exchange, Inc. (''Exchange'' or ''CBOE'') filed with the Securities and Exchange Commission (''Commission''), pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (''Act''),[1] and Rule 19b–4 thereunder,[2] a proposed rule change to adopt a modified trading schedule for holidays. The proposed rule change was published for comment in the **Federal Register** on December 3, 2021.[3] On January 12, 2022, the Commission designated a longer period for Commission action on the proposed rule change, until March 3, 2022.[4] The Commission has received no comment letters on the proposal. This order approves the proposed rule change.

II. Description of the Proposed Rule Change

The Exchange proposes to adopt a modified trading schedule for holidays observed by the Exchange and amend and conform various rules relating to the proposed holiday trading sessions, as described more fully below. Particularly, the Exchange proposes to (i) adopt an additional Global Trading Hours (''GTH'') [5] trading session that would immediately precede domestic holidays and (ii) start the GTH session that immediately follows a holiday at 8:15 p.m. on the holiday.[6]

The Exchange currently offers two trading sessions.[7] Regular Trading Hours (''RTH'') and GTH. CBOE Rule 5.1 currently sets forth the trading hours for the Exchange's RTH and GTH trading sessions, as well as the trading schedule for holidays observed by the Exchange. RTH for transactions in index options are from 9:30 a.m. to 4:15 p.m., subject to certain exceptions.[8] Currently, the GTH session begins at 8:15 p.m. (previous day) and end at 9:15 a.m. on Monday through Friday.[9] Any GTH session that follows a holiday listed under Rule 5.1(d) begins at 12:00 a.m. on the calendar day immediately following the day the holiday is observed and ends at 9:15 a.m., unless the holiday is observed on a Friday, in which case the subsequent GTH session will begin at 8:15 p.m. (Sunday) and will end at 9:15 a.m. (Monday).[10] Transactions effected during the GTH session have the same trade date as the RTH session that immediately follows it.[11]

Additionally, there are several holidays on which the Exchange is currently not open for business.[12] For any holiday observed by the Exchange that falls on a Saturday, the Exchange is not open for business on the preceding Friday, and when any holiday observed by the Exchange falls on a Sunday, the

[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

[3] *See* Securities Exchange Act Release No. 93677 (November 29, 2021), 86 FR 68703 (''Notice'').

[4] *See* Securities Exchange Act Release No. 93955, 87 FR 2971 (January 19, 2022).

[5] The Exchange's rules provide that the Exchange may designate as eligible for trading during GTH any exclusively listed index option designated for trading under Chapter 4, Section B. If the Exchange designates a class of index options as eligible for trading during GTH, FLEX Options with the same underlying index are also deemed eligible for trading during GTH. Currently, only SPX, VIX and XSP are approved for trading during GTH. Although eligible, XSP is not currently listed for trading during GTH.

[6] If the holiday is observed on a Friday, GTH currently begins (and would continue to begin) at 8:15 p.m. on the following Sunday.

[7] The term ''trading session'' means the hours during which the Exchange is open for trading for Regular Trading Hours or Global Trading Hours (each of which may be referred to as a trading session). Unless otherwise specified in the Rules or the context otherwise indicates, all Rules apply in the same manner during each trading session. *See* CBOE Rule 1.1 (Definitions).

[8] *See* CBOE Rule 5.1(b)(2).

[9] *See also* Securities Exchange Act Release No. 93403 (October 22, 2021), 86 FR 59824 (October 28, 2021) (SR–CBOE–2021–061).

[10] *Id.*

[11] For example, any transactions effected during the GTH session that begins at 8:15 p.m. on Tuesday, November 23 will be considered to have the trade date of Wednesday, November 24 regardless of whether the trades were effected between 8:15 p.m. and 11:59 p.m. on Tuesday, November 23 or between 12:00 a.m. and 9:15 a.m. on Wednesday November 24.

[12] *See* CBOE Rule 5.1(d). Currently, the Exchange is not open for business on: New Year's Day, Martin Luther King, Jr. Day, Presidents' Day, Good Friday, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, or Christmas Day.

Exchange is not open for business on the following Monday, unless unusual business conditions exist at the time. Currently, if the Exchange is not open for RTH on a day, including holidays, then it will not be open for GTH on that same day.[13]

The Exchange now proposes to also adopt a modified holiday trading hours schedule to, according to the Exchange, provide global market participants the ability to trade during GTH sessions that overlap with U.S. domestic holidays.

Trading Hours

The Exchange proposes to amend CBOE Rule 5.1(d) to adopt modified trading schedules for domestic[14] and international[15] holidays.[16] First, the Exchange proposes to adopt CBOE Rule 5.1(d)(1), which would outline the trading hours schedule for domestic holidays and provide specifically that for Martin Luther King, Jr. Day, Presidents' Day, Memorial Day, Independence Day, Labor Day, and Thanksgiving Day (*i.e.,* domestic holidays), the trading day following the holiday would consist of the following three trading sessions: (i) A GTH session from 8:15 p.m. on the calendar day preceding the holiday (observed) to 11:30 a.m. on the holiday (observed), (ii) a GTH session from 8:15 p.m. on the holiday, or if the holiday is on a Friday, on the Sunday following the holiday, to 9:15 a.m. on the trading day and (iii) a RTH session on the trading day.[17] Proposed CBOE Rule 5.1(d)(1) would also make clear that there would continue to be no RTH session on the day a domestic holiday is observed. According to the Exchange, the proposed hours of operation for the GTH session immediately preceding a RTH session that is closed due to a domestic holiday overlaps with the hours of operation of many international markets, which do not observe U.S. domestic holidays and are therefore still open at this time. Moreover, both GTH trading sessions would be considered part of the next trading day (*i.e.,* both GTH sessions would have the trade date of the trading day following the holiday).[18] As an example, the holiday GTH session preceding Memorial Day would start at 8:15 p.m. on the Sunday prior to Memorial Day and end at 11:30 a.m. on Memorial Day. The market would then be closed at 11:30 a.m. on Memorial Day (Monday) (*i.e.,* there would be no RTH session on Memorial Day). The next GTH trading session would begin at 8:15 p.m. on Memorial Day and proceed as normal until 9:15 a.m. on Tuesday, which would be followed by a normal RTH session that begins as 9:30 a.m. on Tuesday. All trading from Sunday night through Tuesday RTH market close would be considered to be part of the Tuesday trading day. The following also illustrates how the holiday schedule applies for U.S. domestic holidays that are observed on a Friday. For example, if Independence Day is observed on a Friday, the trading day following the Friday holiday (Monday Trading Day) would consist of three trading sessions: (1) A GTH session open from 8:15 p.m. on the Thursday preceding Independence Day to 11:30 a.m. on Independence Day, (2) a GTH session from 8:15 p.m. on the Sunday following Independence Day to 9:15 a.m. on the following Monday and (3) a RTH session from 9:30 a.m. to 4:15 p.m. on Monday. All trading from Thursday night through Friday, and from Sunday night through Monday RTH market close is considered to be part of the Monday trading day.

The Exchange next proposes to adopt CBOE Rule 5.1(d)(2), which would outline the trading hours schedule for international holidays and provide specifically that for Good Friday, Christmas Day and New Year's Day (*i.e.,* international holidays), the trading day following the holiday would consist of the following two trading sessions: (i) A GTH session from 8:15 p.m. on the holiday, or if the holiday is observed on a Friday, on the Sunday following the holiday, to 9:15 a.m. on the trading day and (ii) a RTH session on the trading day. Pursuant to proposed CBOE Rule 5.1(d)(2) there would not be a RTH session on the day an international holiday is observed nor a GTH session immediately preceding the day an international holiday is observed, since according to the Exchange, international holidays, unlike domestic holidays, are observed not just by U.S. residents, but by many global market participants. Therefore, many international markets are also closed in observance of these international holidays.[19] Just like regular GTH trading sessions, a GTH trading session that starts on an international holiday at 8:15 p.m., would be considered part of the next trading day. For example, there would be no GTH session immediately preceding Good Friday (*i.e.,* no GTH session that starts on Thursday). Rather, the market would be closed from RTH market close on the Thursday preceding Good Friday until the GTH session that starts at 8:15 p.m. on the Sunday following Good Friday. All trading from Sunday night through RTH market close on the following Monday is for a trading day of Monday.

Entry of Orders, Quotes and Cancellations

The Exchange lastly proposes to update CBOE Rule 5.7(e), which provides that after RTH market close, Users may cancel orders and quotes with Time-in-Force of Good-til-Cancelled (''GTC'')[20] or Good-til-Date (''GTD'')[21] that remain in the Book until 4:45 p.m. In light of the proposed holiday schedule for GTH sessions on domestic holidays (*i.e.,* the GTH session would end at 11:30 a.m. on a domestic holiday (observed)), the Exchange proposes to amend CBOE Rule 5.7(e) to provide that on such domestic holidays, users may cancel orders and quotes with Time-in-Force of GTC or GTD until 11:45 a.m. Pursuant to the proposed rule change, Users would be able to cancel any GTC and GTD orders until 11:45 a.m. on domestic holidays, not just

[13] *See* CBOE Rule 1.1, definition of ''Business Day'' and ''Trading Day''.

[14] Domestic holidays include Martin Luther King, Jr. Day, Presidents' Day, Memorial Day, Independence Day, Labor Day and Thanksgiving Day.

[15] International holidays include Good Friday, Christmas Day and New Year's Day.

[16] The Exchange also proposes making conforming changes to CBOE Rule 5.1(c) to reflect the proposed holiday schedule. *See* Notice, *supra* note 3, 86 FR at 68704.

[17] The Exchange would further amend the definition of ''Business Day and Trading Day'' under Proposed CBOE Rule 1.1 to conform to the proposed rule change by clarifying that a ''business day or trading day that immediately follows a domestic holiday . . . includes the Regular Trading Hours session and the two Global Trading Hours sessions that immediately precede it.'' *See also* Notice, *supra* note 3, 86 FR at 68705–06.

[18] Pursuant to CBOE Rule 6.4 (Reporting of Trades to OCC), all transactions made on the Exchange during these sessions will continue to be submitted for clearance to the Options Clearing Corporation (''OCC'') in the same manner they are today. However, as noted, such trades will have the trade date of the trading day following the holiday.

[19] Moreover, according to the Exchange, futures markets similarly do not provide an extended trading hours session that precede certain international holidays. *See e.g.,* CFE Rule 1202, which provides, among other things, that there will be no extended trading hours session preceding New Year's Day and Christmas Day.

[20] *See* CBOE Rule 5.6(c). The terms ''Good-til-Cancelled'' and ''GTC'' mean, for an order so designated, if after entry into the System, the order is not fully executed, the order (or unexecuted portion) remains available for potential display or execution (with the same timestamp) unless cancelled by the entering User, or until the option expires, whichever comes first. Users may not designate bulk messages as GTC.

[21] *See* CBOE Rule 5.6(c). The terms ''Good-til-Date'' and ''GTD'' mean, for an order so designated, if after entry into the System, the order is not fully executed, the order (or unexecuted portion) remains available for potential display or execution (with the same timestamp) until a date and time specified by the entering User unless cancelled by the entering User. Users may not designate bulk messages as GTD. A User may not designate a GTD order as Direct to PAR.

orders in All Sessions classes (*i.e.,* SPX and VIX).[22]

Market-Maker Rules

Current CBOE Rule 5.50(a) (Market-Maker Appointments) provides that a Market-Maker's selected class appointment applies to classes during all trading sessions. In other words, if a Market-Maker selects an appointment in SPX options, for example, that appointment would apply during both GTH and RTH (and thus, the Market-Maker would have an appointment to make markets in SPX during GTH and RTH). As a result, the Market-Maker continuous quoting obligations set forth in Rule 5.52(d) would apply to the class for an entire trading day (including both trading sessions). Pursuant to Rule 5.52(d), a Market-Maker must enter continuous bids and offers in 60% of the series of the Market-Maker's appointed classes, excluding any adjusted series, any intra-day add-on series on the day during which such series are added for trading, any Quarterly Option series, and any series with an expiration of greater than 270 days.[23] According to the Exchange, it calculates this requirement by taking the total number of seconds the Market-Maker disseminates quotes in each appointed class (excluding the series noted above) and dividing that time by the eligible total number of seconds each appointed class is open for trading that day.[24] However, according to the Exchange, the obligations apply only when the Market-Maker is quoting in a particular class during a given trading day and the obligations are not applicable to an appointed class if a Market-Maker is not quoting in that appointed class.[25] Accordingly, if a Market-Maker does not wish to quote during the proposed new GTH sessions, then so long as the Market-Maker does not log in and quote during those hours, it would not be considered when determining a Market-Maker's compliance with the quoting obligations.[26]

Further, the Exchange has represented that it does not anticipate any changes with respect to the current Lead-Market-Makers (''LMMs'') structure used today during GTH.[27] Accordingly, LMMs appointed in the GTH holiday sessions would therefore continue to not be obligated to satisfy heightened continuous quoting and opening quoting standards during GTH, nor would they receive a benefit in exchange for satisfying an obligation (*i.e.,* LMMs do and would not receive a participation entitlement during GTH, including during holiday trading hours).[28]

Exchange Representations

According to the Exchange, the proposed rule change to adopt a modified holiday trading schedule would not make any changes to the trading rules applicable to GTH.[29] The GTH trading session, including GTH holiday sessions, would continue to be a separate trading sessions from RTH and the rules that currently apply (or do not apply) to the current GTH session would continue to apply (or not apply) to the GTH holiday session.[30] The Exchange would continue to use the same servers and hardware during the GTH holiday sessions as it uses for RTH and GTH today.[31] Further, according to the Exchange, Trading Permit Holders (''TPHs'') may continue to use the same ports and connections to the Exchange for all trading sessions.[32] The Book used during the GTH holiday sessions would also be the same Book used currently during RTH and GTH.[33] Moreover, the Exchange represented the following:[34]

- All TPHs would continue to be allowed to, but would not be required to, participate during GTH holiday trading hours.[35]
- The Exchange would continue to use the same connection lines, message formats, and feeds during RTH and GTH, including GTH holiday sessions.[36] TPHs may use the same ports and EFIDs [37] for each trading session.[38]
- The same opening process would continue to be used to open GTH.
- Order processing would operate in the same manner as it does during RTH and the current GTH session. There would be no changes to the ranking, display, or allocation algorithms rules.
- There would be no changes to the processes for clearing, settlement, exercise, and expiration.
- The Exchange would report Exchange quotation and last sale information to the Options Price Reporting Authority (''OPRA'') pursuant to the Plan for Reporting of Consolidated Options Last Sale Reports and Quotation Information (''OPRA Plan'') during the proposed additional holiday hours in the same manner it currently reports this information to OPRA during RTH and GTH today.[39] The Exchange would also continue to disseminate an opening quote and trade price through OPRA during the proposed additional holiday trading hours (as it does for RTH and GTH today). Therefore, all TPHs that elect to trade during the proposed holiday trading hours would have access to quote and last sale information during that trading session. Exchange proprietary data feeds would also continue to be disseminated during holiday trading hours using the same formats and delivery mechanisms with which the Exchange disseminates them during RTH and GTH today. Use of these proprietary data feeds during holiday trading hours would be optional (as they are today during RTH and GTH).
- The same TPHs that are required to maintain connectivity to a backup trading facility during RTH and GTH today would be required to do so during the proposed holiday trading hours.[40] According to the Exchange, because the same connections and servers would be used for all trading sessions, including any holiday trading hours, a TPH would not be required to take any additional action to comply with this requirement,

[22] *See* Notice, *supra* note 3, 86 FR at 68706.

[23] *See* CBOE Rule 5.52(d)(2).

[24] *See* Notice, *supra* note 3, 86 FR at 68706.

[25] *Id.*

[26] *Id.*

[27] *Id.*

[28] *Id.*

[29] *Id.*

[30] For example, business conduct rules in Chapter 8 and rules related to doing business with the public in Chapter 9 would continue to apply during the GTH holiday session. *Id.* at 68707, n.29. Additionally, a broker-dealer's due diligence and best execution obligations would apply during the GTH holiday session. *Id.* As there would still be no open outcry trading on the floor during GTH, Chapter 5, Section G would continue not to apply as such rules pertain to manual order handling and open-outcry trading. *Id.*

[31] *Id.* at 68707.

[32] *Id.*

[33] *Id.*

[34] *Id.*

[35] In order to participate in GTH, even as amended, a TPH must have a letter of guarantee from a Clearing TPH that is properly authorized by the OCC to operate during the GTH session. *See* CBOE Rule 3.61.

[36] The same telecommunications lines used by TPHs during RTH and/or GTH today may be used during GTH, even as extended, and these lines would be connected to the same application server at the Exchange during both trading sessions.

[37] The term ''EFID'' means an Executing Firm ID. *See* CBOE Rule 1.1. The Exchange assigns an EFID to a TPH, which the System uses to identify the TPH and the clearing number for the execution of orders and quotes submitted to the System with that EFID.

[38] A TPH may elect to have separate ports or EFIDs for each trading session, but the Exchange would not require that.

[39] The Exchange represents that it would report its best bid and offer and executed trades to OPRA during the proposed additional holiday trading hours in the same manner that they are reported during RTH and GTH today.

[40] *See* CBOE Rule 5.24.

regardless of whether the TPH chooses to trade during holiday trading hours.

- The Exchange would process all clearly erroneous trade breaks during holiday trading hours in the same manner it does during RTH and GTH today and would have Exchange officials available to do so.
- The Exchange would perform all necessary surveillance coverage during holiday trading hours.
- The Exchange may halt trading during GTH holiday sessions in the interests of a fair and orderly market in the same manner it may during RTH and GTH today pursuant to Rule 5.20. Among the factors that may be considered in making the foregoing determinations are whether there has been an activation of price limits on futures exchanges or the halt of trading in related futures with respect to index options.[41]
- CBOE Rule 5.22 (Market-wide Trading Halts due to Extraordinary Market Volatility) would continue to not apply during GTH, including the proposed GTH holiday sessions.

The Exchange has further represented that it would have appropriate staff on-site and otherwise available as necessary during the proposed GTH holiday sessions to handle any technical and support issues that may arise during those hours.[42] Additionally, the Exchange would have personnel available to address any trading issues that may arise during the additional GTH trading hours.[43] According to the Exchange, it is also committed to fulfilling its obligations as a self-regulatory organization at all times, including during GTH, and would have appropriately trained, qualified regulatory staff in place during GTH holiday sessions.[44] Moreover, the Exchange has represented that while it believes its surveillance procedures are adequate to properly monitor trading during the proposed GTH holiday sessions, it will revise such procedures to the extent necessary if additional changes are needed in the future.[45]

Implementation Date

The Exchange represents that it will announce the implementation date of the proposed rule change in accordance with Rule 1.5.[46]

III. Discussion and Commission Findings

After careful review, the Commission finds that the proposed rule change is consistent with the requirements of the Act,[47] and the rules and regulations thereunder applicable to a national securities exchange.[48] In particular, the Commission finds that the proposed rule change is consistent with Section 6(b)(5) of the Act,[49] which requires, among other things, that the rules of a national securities exchange be designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, to remove impediments to and perfect the mechanism of a free and open market and a national market system, and, in general, to protect investors and the public interest.

As described above, CBOE proposes to adopt a modified trading schedule for GTH during holidays.[50] The proposed modified trading schedule for holidays is designed to more closely align the Exchange's trading hours with extended trading hours of futures exchanges and market hours of other geographic regions. Specifically, the Exchange states that the modified trading schedule on holidays will increase the overlap in time that SPX and VIX options are open alongside the related futures contracts and provide global market participants with expanded access to trade the products offered during GTH.[51] Among other things, the Exchange believes that the proposed modified holiday trading schedule is designed to respond to investor demand to hedge risk, react to global macroeconomic events contemporaneously, and adjust SPX and VIX options positions outside of RTH.[52] The Exchange believes that the proposed rule change will allow market participants operating in geographic locations that do not observe U.S. domestic holidays to respond to international market conditions that may occur during such holidays.[53] As a result, the Exchange believes that the proposal will allow a new segment of global market participants the ability to trade GTH products in their local time, particularly those trading SPX and VIX options.[54]

The Commission finds that the proposed modifications to the GTH trading schedule for domestic and international holidays are consistent with the Act.[55] The Commission notes that the Exchange has represented that the modified holiday trading schedule makes no changes to the trading rules applicable to GTH.[56] Specifically, the Exchange represents, among other things, that the business conduct rules in Chapter 8 of the Rules and rules related to doing business with the public in Chapter 9 of the Rules will continue to apply during the modified GTH holiday schedule.[57] The processes for options clearing, settlement, exercise, and expiration, as well as clearly erroneous trades, will remain the same during the modified GTH holiday trading schedule.[58] Moreover, the Exchange has represented that it will perform all necessary surveillance and have qualified regulatory staff available during the modified GTH holiday sessions in keeping with its obligations as an self-regulatory organization.[59] The Exchange also states that it has held discussions with the OCC, which has informed the Exchange that it will be able to clear and settle all transactions that occur on the Exchange during the proposed holiday trading hours subject to its existing requirements for transactions executed during extended and overnight trading sessions.[60] As a result, the Commission finds that the proposed rule change is reasonably designed to help prevent fraudulent and manipulative acts and practices, and promote just and equitable principles of trade, by conditioning the increased availability for TPHs to trade outside of the current RTH and GTH sessions with Exchange oversight and regulatory surveillance and reporting.

The proposed rule change is also consistent with Section 11A(a)(1)(C) of the Act.[61] Congress found in those provisions that it is in the public interest and appropriate for the protection of investors and the maintenance of fair and orderly markets

[41] *See* CBOE Rule 5.20(a)(6). As discussed above, futures markets already follow a modified holiday trading schedule similar to what the Exchange is proposing. As such, should a halt of trading in related futures occur during the time a GTH holiday session is open, then the Exchange may consider whether to halt during that session, just as it may do during regular GTH (and RTH) sessions. *See* Notice, *supra* note 3, 86 FR at 68707, n.38.

[42] *Id.* at 68708.

[43] *Id.*

[44] *Id.*

[45] *Id.*

[46] *See id.* at 68708.

[47] 15 U.S.C. 78f.

[48] In approving this proposed rule change, the Commission has considered the proposed rule's impact on efficiency, competition, and capital formation. *See* 15 U.S.C. 78c(f).

[49] 15 U.S.C. 78f(b)(5).

[50] In connection with the modified trading schedule for GTH during domestic and international holidays, the Exchange is also amending Cboe Rule 5.7(e) to allow all GTC or GTD orders to be cancelled until 11:45 a.m. on the day a domestic holiday is observed.

[51] *See* Notice, *supra* note 3, 86 FR at 68708.

[52] *See id.*

[53] *See id.*

[54] *See id.* at 68704.

[55] *See id.*

[56] *See id.*

[57] *See id.* at 68707, n.29.

[58] *See id.* at 68707.

[59] *See id.* at 68707–08.

[60] *See id.* at 68707, n.34.

[61] 15 U.S.C. 78k–1(a)(1)(C).

to assure the availability to brokers, dealers, and investors of information with respect to quotations for and transactions in securities, and to assure the practicability of brokers executing investors' orders in the best market. The proposed rule change is designed to accomplish these objectives by ensuring that the Exchange will report its best bid and offer and executed trades to OPRA during the modified GTH holiday sessions in the same manner that they are reported currently during RTH and GTH,[62] thereby providing public transparency of activity during the modified GTH holiday session.

Finally, the Commission also believes that the Exchange's proposed change to Cboe Rule 5.7(e), which would allow Users to cancel all GTC or GTD orders until 11:45 a.m. on domestic holidays (observed) is also consistent with the Act. The Commission notes that Users are currently able to cancel orders and quotes prior to RTH starting at 7:30 a.m. for RTH Classes. The Commission believes that this proposed change should provide Users with additional flexibility to manage their GTC or GTD orders.

IV. Conclusion

It is therefore ordered, pursuant to Section 19(b)(2) of the Act,[63] that the proposed rule change (SR–CBOE–2021–068) be, and hereby is, approved.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[64]

J. Matthew DeLesDernier,

Assistant Secretary.

[FR Doc. 2022–03650 Filed 2–18–22; 8:45 am]

BILLING CODE 8011–01–P

SECURITIES AND EXCHANGE COMMISSION

[SEC File No. 270–621, OMB Control No. 3235–0672, (Electronic Data Collection System); SEC File No. 270–625, OMB Control No. 3235–0686, (Form TCR)]

Proposed Collection; Comment Request

Upon Written Request, Copies Available From: Securities and Exchange Commission, Office of FOIA Services, 100 F Street NE, Washington, DC 20549–2736

Extensions:

Electronic Data Collection System, Form TCR

Notice is hereby given that, pursuant to the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*), the Securities and Exchange Commission (''Commission'') is soliciting comments on the collection of information summarized below. The Commission plans to submit an extension for these two current collections of information to the Office of Management and Budget for approval, and to consolidate both collections of information within OMB Control No. 3235–0672.

The Commission invites comment on updates to its Electronic Data Collection System database (the Database), which will support information provided by members of the public who would like to file an online tip, complaint or referral (TCR) to the Commission. The Database will be a web based e-filed dynamic report based on technology that pre-populates and establishes a series of questions based on the data that the individual enters. The individual will then complete specific information on the subject(s) and nature of the suspicious activity, using the data elements appropriate to the type of complaint or subject. The information collection is voluntary. The public interface to the Database will be available using the agency's website, *www.sec.gov.* The Commission estimates that it takes a complainant, on average, 30 minutes to submit a TCR through the Database. Based on the receipt of an average of approximately 28,000 annual TCRs for the past three fiscal years, the Commission estimates that the annual reporting burden is 14,000 hours.

The Commission further invites comment on updates to Form TCR, which is a hard copy form adopted by the Commission in 2011.[1] Form TCR may be submitted by whistleblowers who wish to provide information to the Commission and its staff regarding potential violations of the federal securities laws. The Commission estimates that it takes a whistleblower, on average, one and one half hours to complete Form TCR. Based on the receipt of an average of approximately 560 annual Form TCR submissions for the past three fiscal years, the Commission estimates that the annual reporting burden of Form TCR is 840 hours.

Written comments are invited on: (a) Whether this collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility; (b) the accuracy of the agency's estimate of the burden imposed by the collection of information; (c) ways to enhance the quality, utility, and clarity of the information collected; and (d) ways to minimize the burden of the collection of information on respondents, including through the use of automated collection techniques or other forms of information technology.

Consideration will be given to comments and suggestions submitted in writing within 30 days of this publication. Please direct your written comments to David Bottom, Director/Chief Information Officer, Securities and Exchange Commission, c/o John R. Pezzullo, 100 F St. NE, Washington, DC 20549; or send an email to: *PRA_Mailbox@sec.gov.*

Dated: February 15, 2022.

J. Matthew DeLesDernier,

Assistant Secretary.

[FR Doc. 2022–03623 Filed 2–18–22; 8:45 am]

BILLING CODE 8011–01–P

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–94262; File No. SR–MIAX–2022–10]

Self-Regulatory Organizations; Miami International Securities Exchange, LLC; Notice of Filing of a Proposed Rule Change To Establish Fees for the Exchange's cToM Market Data Product; Suspension of and Order Instituting Proceedings To Determine Whether To Approve or Disapprove the Proposed Rule Change

February 15, 2022.

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (''Act''),[1] and Rule 19b–4 thereunder,[2] notice is hereby given that on February 7, 2022, Miami International Securities Exchange, LLC (''MIAX'' or ''Exchange'') filed with the Securities and Exchange Commission (''Commission'') a proposed rule change as described in Item II below, which Item has been prepared by the Exchange. The Exchange filed the proposed rule change pursuant to Section 19(b)(3)(A)(ii) of the Act,[3] and Rule 19b–4(f)(2) thereunder.[4] The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons and is, pursuant to Section 19(b)(3)(C) of the Act, hereby: (i) Temporarily suspending the proposed

[62] *See* Notice, *supra* note 3, 86 FR at 68707, nn.35–36 and accompanying text.

[63] *Id.*

[64] 17 CFR 200.30–3(a)(57) and (58).

[1] Implementation of the Whistleblower Provisions of Section 21F of the Securities Exchange Act of 1934, Release No. 34–64545; File No. S7–33–10 (adopted May 25, 2011).

[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

[3] 15 U.S.C. 78s(b)(3)(A)(ii).

[4] 17 CFR 240.19b–4(f)(2).

rule change; and (ii) instituting proceedings to determine whether to approve or disapprove the proposed rule change.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

The Exchange is filing a proposal to amend the MIAX Options Fee Schedule (the ''Fee Schedule'') to establish fees for the market data product known as MIAX Complex Top of Market (''cToM''). The fees became operative on February 7, 2022. The text of the proposed rule change is available on the Exchange's website at *http://www.miaxoptions.com/rule-filings,* at MIAX's principal office, and at the Commission's Public Reference Room.

II. Self-Regulatory Organization's Description of the Proposed Rule Change

In its filing with the Commission, the Exchange included statements concerning the purpose of and basis for the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in Item IV [sic] below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

The Exchange proposes to amend Section 6)a) of the Fee Schedule to establish fees for the cToM data product. The Exchange initially filed this proposal on June 30, 2021 with the proposed fees to be effective beginning July 1, 2021 (''First Proposed Rule Change'').[5] The First Proposed Rule Change was published for comment in the **Federal Register** on July 15, 2021.[6] Although the Commission did not receive any comment letters on the First Proposed Rule Change, on August 27, 2021, the Commission issued its Suspension of and Order Instituting Proceedings to Determine Whether to Approve or Disapprove Proposed Rule Changes to Establish Fees for the Exchanges' cToM Market Data Products (relating to the First Proposed Rule Change and a similar filing by the Exchange's affiliate, MIAX Emerald, LLC (''MIAX Emerald''), to also adopt cToM fees).[7] The Exchange withdrew the First Proposed Rule Change on September 30, 2021 [8] and re-submitted the proposal, with the proposed fee changes being immediately effective (''Second Proposed Rule Change'').[9] The Second Proposed Rule Change provided additional justification for the proposed fee changes and addressed comments provided by the Commission Staff. On October 14, 2021, the Exchange withdrew the Second Proposed Rule Change and submitted its proposal to adopt cToM fees to again provide additional justification for the proposed fee changes and address comments provided by the Commission Staff (''Third Proposed Rule Change'').[10] The Third Proposed Rule Change was published for comment in the **Federal Register** on November 1, 2021.[11] Although the Commission did not again receive any comment letters on the Third Proposed Rule Change, the Exchange withdrew the Third Proposed Rule Change on December 10, 2021 and submitted a revised proposal for immediate effectiveness (''Fourth Proposed Rule Change'').[12] The Fourth Proposed Rule Change was published for comment in the **Federal Register** on December 23, 2021.[13] The Fourth Proposed Rule Change meaningfully attempted to provide additional justification and explanation for the proposed fee change in response to a telephone conversation with Commission Staff on December 7, 2021 relating to the Third Proposed Rule Change. Although the Commission again did not receive any comment letters on the Fourth Proposed Rule Change, the Exchange withdrew the Fourth Proposed Rule Change on February 7, 2022 and now submits this revised proposal for immediate effectiveness (''Fifth Proposed Rule Change''). This Fifth Proposed Rule Change provides additional justification and explanation for the proposed fee changes.

Background

The Exchange previously adopted rules governing the trading of Complex Orders [14] on the MIAX System [15] in 2016.[16] At that time, the Exchange also adopted the market data product cToM and expressly waived fees for cToM to provide an incentive to prospective market participants to subscribe to that market data feed.[17] Prior to the First Proposed Rule Change, the Exchange did not charge fees to cToM subscribers during the nearly five years since it was first available for subscription.

In summary, cToM provides subscribers with the same information as the MIAX Top of Market (''ToM'') data product as it relates to the Strategy Book,[18] *i.e.,* the Exchange's best bid and offer for a complex strategy, with aggregate size, based on displayable order and quoting interest in the complex strategy on the Exchange. However, cToM provides subscribers with the following additional information that is not included in ToM: (i) The identification of the complex strategies currently trading on the Exchange; (ii) complex strategy last sale information; and (iii) the status of securities underlying the complex strategy (*e.g.,* halted, open, or resumed). cToM is therefore a distinct market data product from ToM in that it includes additional information that is not available to subscribers that receive only the ToM data feed. ToM subscribers are not required to subscribe to cToM, and cToM subscribers are not required to subscribe to ToM.[19]

Proposal

The Exchange now proposes to amend Section (6)(a) of the Fee Schedule to charge monthly fees to Distributors [20] of cToM. Specifically, the Exchange proposes to assess Internal Distributors

[5] *See* Securities Exchange Act Release No. 92359 (July 9, 2021), 86 FR 37393 (July 15, 2021) (SR–MIAX–2021–28).

[6] *Id.*

[7] *See* Securities Exchange Act Release No. 92789 (August 27, 2021), 86 FR 49364 (September 2, 2021) (SR–MIAX–2021–28, SR–EMERALD–2021–21) (the ''Suspension Order'').

[8] *See* Securities Exchange Act Release No. 93471 (October 29, 2021), 86 FR 60947 (November 4, 2021).

[9] *See* SR–MIAX–2021–44.

[10] Securities Exchange Act Release No. 93426 (October 26, 2021), 86 FR 60314 (November 1, 2021) (SR–MIAX–2021–50).

[11] *Id.*

[12] Securities Exchange Act Release No. 93808 (December 17, 2021), 86 FR 73011 (December 23, 2021) (SR–MIAX–2021–62).

[13] *Id.*

[14] *See* Exchange Rule 518(a)(5) for the definition of Complex Orders.

[15] The term ''System'' means the automated trading system used by the Exchange for the trading of securities. *See* Exchange Rule 100.

[16] *See* Securities Exchange Act Release No. 79072 (October 7, 2016), 81 FR 71131 (October 14, 2016) (SR–MIAX–2016–26) (Order Approving a Proposed Rule Change to Adopt New Rules to Govern the Trading of Complex Orders).

[17] *See* Securities Exchange Act Release No. 79146 (October 24, 2016), 81 FR 75171 (October 28, 2016) (SR–MIAX–2016–36) (providing a complete description of the cToM data feed).

[18] The ''Strategy Book'' is the Exchange's electronic book of complex orders and complex quotes. *See* Exchange Rule 518(a)(17).

[19] *See supra* note 14.

[20] A ''Distributor'' of MIAX data is any entity that receives a feed or file of data either directly from MIAX or indirectly through another entity and then distributes it either internally (within that entity) or externally (outside that entity). All Distributors are required to execute a MIAX Distributor Agreement. *See* Section (6)(a) of the Fee Schedule.

$1,250 per month and External Distributors $1,750 per month for the cToM data feed.[21] The Exchange notes that the proposed monthly cToM fees for Internal and External Distributors are the same prices that the Exchange charges for its ToM data product, and are identical to the prices the Exchange's affiliate, MIAX Emerald, proposes to charge for its cToM product.

As it does today for ToM, MIAX proposes to assess cToM fees on Internal and External Distributors in each month the Distributor is credentialed to use cToM in the production environment. Also, as the Exchange does today for ToM, market data fees, the fee for cToM will be reduced for new Distributors for the first month during which they subscribe to cToM, based on the number of trading days that have been held during the month prior to the date on which that subscriber has been credentialed to use cToM in the production environment. Such new Distributors will be assessed a pro-rata percentage of the fees in the table in Section (6)(a) of the Fee Schedule, which is the percentage of the number of trading days remaining in the affected calendar month as of the date on which they have been credentialed to use cToM in the production environment, divided by the total number of trading days in the affected calendar month.

The Exchange believes that other exchanges' fees for complex market data are useful examples and provides the below table for comparison purposes only to show how the Exchange's proposed fees compare to fees currently charged by other options exchanges for similar complex market data. As shown by the below table, the Exchange's proposed fees for cToM are similar to or less than fees charged for similar data products provided by other options exchanges.

Exchange	Monthly fee
MIAX (as proposed)	$1,250—Internal Distributor; $1,750—External Distributor.
NYSE American, LLC (''Amex'')[22]	$1,500—Access Fee; $1,000—Redistribution Fee.
NYSE Arca, Inc. (''Arca'')[23]	$1,500—Access Fee; $1,000—Redistribution Fee.
NASDAQ PHLX LLC (''PHLX'')[24]	$3,000—Internal Distributor; $3,500—External Distributor.

The Exchange also proposes to amend the paragraph below the table of fees for ToM and cToM in Section (6)(a) of the Fee Schedule to make a minor, non-substantive corrective edit. In particular, the Exchange proposes to delete the phrase ''(as applicable)'' in the first sentence following the table of fees for ToM and cToM. The purpose of this proposed change is to remove unnecessary text from the Fee Schedule.

cToM Content Is Available From Alternative Sources

cToM is also not the exclusive source for Complex Order information from the Exchange, and market participants may choose to subscribe to the Exchange's other data products to receive such information. It is a business decision of market participants whether to subscribe to the cToM data product or not. Market participants that choose not to subscribe to cToM can derive much, if not all, of the same information provided in the cToM feed from other Exchange sources, including, for example, the MIAX Options Order Feed (''MOR'').[25] The following cToM information is provided to subscribers of MOR: The Exchange's best bid and offer for a complex strategy, with aggregate size, based on displayable order and quoting interest in the complex strategy on the Exchange; the identification of the complex strategies currently trading on the Exchange; and the status of securities underlying the complex strategy (*e.g.,* halted, open, or resumed). In addition to the cToM information contained in MOR, complex strategy last sale information can be derived from the Exchange's ToM data feed. Specifically, market participants may deduce that last sale information for multiple trades in related options series that are disseminated via the ToM data feed with the same timestamp are likely part of a Complex Order transaction and last sale.

Implementation

The proposed rule change is immediately effective.

2. Statutory Basis

The Exchange believes that its proposal to amend its Fee Schedule is consistent with Section 6(b) of the Act[26] in general, and furthers the objectives of Section 6(b)(4) of the Act[27] in particular, in that it is an equitable allocation of reasonable dues, fees and other charges among its members and issuers and other persons using its facilities. The Exchange also believes the proposal furthers the objectives of Section 6(b)(5) of the Act in that it is designed to promote just and equitable principles of trade, remove impediments to and perfect the mechanism of a free and open market and a national market system, and, in general protect investors and the public interest and is not designed to permit unfair discrimination between customers, issuers, brokers and dealers.

On March 29, 2019, the Commission issued an Order disapproving a proposed fee change by the BOX Market LLC Options Facility to establish connectivity fees for its BOX Network (the ''BOX Order'').[28] On May 21, 2019, the Commission Staff issued guidance ''to assist the national securities exchanges and FINRA . . . in preparing Fee Filings that meet their burden to demonstrate that proposed fees are consistent with the requirements of the Securities Exchange Act.''[29] Based on

[21] The Exchange also proposes to make a minor related change to remove ''(as applicable)'' from the explanatory paragraph in Section (6)(a) as it will not change fees for both the ToM and cToM data feeds.

[22] *See* NYSE American Options Proprietary Market Data Fees, American Options Complex Fees, at *https://www.nyse.com/publicdocs/nyse/data/NYSE_American_Options_Market_Data_Fee_Schedule.pdf.*

[23] See NYSE Arca Options Proprietary Market Data Fees, Arca Options Complex Fees, at *https://www.nyse.com/publicdocs/nyse/data/NYSE_Arca_Options_Proprietary_Data_Fee_Schedule.pdf.*

[24] *See* PHLX Price List—U.S. Derivatives Data, PHLX Orders Fees, at *http://www.nasdaqtrader.com/Trader.aspx?id=DPPriceListOptions#PHLX.*

[25] *See* MIAX website, Market Data & Offerings, at *https://www.miaxoptions.com/market-data-offerings* (last visited December 10, 2021). In general, MOR provides real-time ultra-low latency updates on the following information: New Simple Orders added to the MIAX Order Book; updates to Simple Orders resting on the MIAX Order Book; new Complex Orders added to the Strategy Book (*i.e.,* the book of Complex Orders); updates to Complex Orders resting on the Strategy Book; MIAX listed series updates; MIAX Complex Strategy definitions; the state of the MIAX System; and MIAX's underlying trading state.

[26] 15 U.S.C. 78f(b).

[27] 15 U.S.C. 78f(b)(4) and (5).

[28] *See* Securities Exchange Act Release No. 85459 (March 29, 2019), 84 FR 13363 (April 4, 2019) (SR–BOX–2018–24, SR–BOX–2018–37, and SR–BOX–2019–04) (Order Disapproving Proposed Rule Changes to Amend the Fee Schedule on the BOX Market LLC Options Facility to Establish BOX Connectivity Fees for Participants and Non-Participants Who Connect to the BOX Network).

[29] *See* Staff Guidance on SRO Rule Filings Relating to Fees (May 21, 2019), at *https://www.sec.gov/tm/staff-guidance-sro-rule-filings-fees* (the ''Guidance'').

both the BOX Order and the Guidance, the Exchange believes that it has clearly met its burden to demonstrate that the proposed fees are consistent with the Act because they (i) are reasonable, equitably allocated, not unfairly discriminatory, and not an undue burden on competition; (ii) comply with the BOX Order and the Guidance; (iii) are supported by evidence (including comprehensive revenue and cost data and analysis) that they are fair and reasonable because they will not result in excessive pricing or supra-competitive profit; and (iv) utilize a cost-based justification framework that is substantially similar to a framework previously used by the Exchange, and its affiliates MIAX Emerald and MIAX PEARL, LLC (''MIAX Pearl''), to adopt or amend market data and non-transaction fees.[30]

The Proposed Fees Will Not Result in a Supra-Competitive Profit

The Exchange believes that exchanges, in setting fees of all types, should meet very high standards of transparency to demonstrate why each new fee or fee amendment meets the requirements of the Act that fees be reasonable, equitably allocated, not unfairly discriminatory, and not create an undue burden on competition among market participants. The Exchange believes this high standard is especially important when an exchange sets certain non-transaction fees, including market data fees. The Exchange believes that it is important to demonstrate that these fees are based on its costs to provide these products and reasonable business needs.

In the Guidance, the Commission Staff stated that, ''[a]s an initial step in assessing the reasonableness of a fee, staff considers whether the fee is constrained by significant competitive forces.'' [31] The Guidance further states that, ''. . . even where an SRO cannot demonstrate, or does not assert, that significant competitive forces constrain the fee at issue, a cost-based discussion may be an alternative basis upon which to show consistency with the Exchange Act.'' [32] In the Guidance, the Commission Staff further states that, ''[i]f an SRO seeks to support its claims that a proposed fee is fair and reasonable because it will permit recovery of the SRO's costs, or will not result in excessive pricing or supra-competitive profit, specific information, including quantitative information, should be provided to support that argument.'' [33] The Exchange does not assert that the proposed fees are constrained by competitive forces. Rather, the Exchange asserts that the proposed fees are reasonable because they will permit recovery of the Exchange's costs in providing services to supply cToM data and will not result in the Exchange generating a supra-competitive profit.

The Guidance defines ''supra-competitive profit'' as ''profits that exceed the profits that can be obtained in a competitive market.'' [34] The Commission Staff further states in the Guidance that ''the SRO should provide an analysis of the SRO's baseline revenues, costs, and profitability (before the proposed fee change) and the SRO's expected revenues, costs, and profitability (following the proposed fee change) for the product or service in question.'' [35] The Exchange provides this analysis below.

Based on this analysis, the Exchange believes the proposed fees are reasonable and do not result in a ''supra-competitive'' [36] profit. The Exchange believes that it is important to demonstrate that the proposed fees are based on its costs and reasonable business needs. The Exchange believes the proposed fees will allow the Exchange to offset expenses the Exchange has and will incur, and that the Exchange provides sufficient transparency (described below) into the costs and revenue underlying the proposed fees. Accordingly, the Exchange provides an analysis of its revenues, costs, and profitability associated with the proposed fees. This analysis includes information regarding its methodology for determining the costs and revenues associated with the proposed fees. As a result of this analysis, the Exchange believes the proposed fees are fair and reasonable as a form of cost recovery plus present the possibility of a reasonable return for the Exchange's aggregate costs of offering cToM data, which has been offered for free for over five years.

The proposed fees are based on a cost-plus model. In determining the appropriate fees to charge, the Exchange considered its costs to provide cToM data, using what it believes to be a conservative methodology (*i.e.,* that strictly considers only those costs that are most clearly directly related to the provision and maintenance of cToM data) to estimate such costs,[37] as well as the relative costs of providing and maintaining cToM data feeds, and set fees that are designed to cover its costs with a limited return in excess of such costs. However, as discussed more fully below, such fees may also result in the Exchange recouping less than all of its costs of providing and maintaining cToM data feeds because of the uncertainty of forecasting subscriber decision making with respect to firms' needs for cToM data and the likely potential for increased costs to procure the third-party services described below.

To determine the Exchange's costs to provide cToM data associated with the proposed fees, the Exchange conducted an extensive cost review in which the Exchange analyzed nearly every expense item in the Exchange's general expense ledger to determine whether each such expense relates to the proposed fees, and, if such expense did so relate, what portion (or percentage) of such expense actually supports the cToM data product associated with the proposed fees.

The Exchange also provides detailed information regarding the Exchange's cost allocation methodology—namely, information that explains the Exchange's rationale for determining that it was reasonable to allocate certain expenses described in this filing towards the cost to the Exchange to provide the services associated with the proposed fees. The Exchange conducted a thorough internal analysis to determine the portion (or percentage) of each expense to allocate to the support of services associated with the proposed fees. This analysis included discussions with each Exchange department head to determine the expenses that support services associated with the proposed fees. This included numerous meetings between the Exchange's Chief Information Officer, Chief Financial

[30] *See* Securities Exchange Act Release Nos. 91145 (February 17, 2021), 86 FR 11033 (February 23, 2021) (SR–EMERALD–2021–05) (proposal to establish market data fees for MIAX Emerald ToM, Administrative Information Subscriber feed, and MIAX Emerald Order Feed); 90981 (January 25, 2021), 86 FR 7582 (January 29, 2021) (SR–PEARL–2021–01) (proposal to increase connectivity fees); 91460 (April 2, 2021), 86 FR 18349 (SR–EMERALD–2021–11) (proposal to adopt port fees, increase connectivity fees, and increase additional limited service ports); 91033 (February 1, 2021), 86 FR 8455 (February 5, 2021) (SR–EMERALD–2021–03) (proposal to adopt trading permit fees).

[31] *See* the Guidance, *supra* note 27.

[32] *Id.*

[33] *Id.*

[34] *Id.*

[35] *Id.*

[36] *Id.*

[37] For example, the Exchange only included the costs associated with providing and supporting cToM data feeds and excluded from its cost calculations any cost not directly associated with providing and maintaining such cToM data feeds. Thus, the Exchange notes that this methodology underestimates the total costs of providing and maintaining cToM data feeds.

Officer, Head of Strategic Planning and Operations, Chief Technology Officer, various members of the Legal Department, and other group leaders. The Exchange reviewed each individual expense to determine if such expense was related to the proposed fees. Once the expenses were identified, the Exchange department heads, with the assistance of our internal finance department, reviewed such expenses holistically on an Exchange-wide level to determine what portion of that expense supports providing services for the proposed fees. The sum of all such portions of expenses represents the total cost to the Exchange to provide services associated with the proposed fees. For the avoidance of doubt, no expense amount was allocated twice.

The internal cost analysis conducted by the Exchange is a proprietary process that is designed to make a fair and reasonable assessment of costs and resources allocated to support the provision of services associated with the proposed fees. The Exchange acknowledges that this assessment can only capture a moment in time and that costs and resource allocations may change. That is why the Exchange has historically, and on an ongoing basis, periodically revisits its costs and resource allocations to ensure it is appropriately allocating resources to properly provide services to the Exchange's constituents. Any requirement that an exchange should conduct a periodic re-evaluation on a set timeline of its cost justification and amend its fees accordingly should be established by the Commission holistically, applied to all exchanges and not just pending fee proposals such as this filing. In order to be fairly applied, such a mandate should be applied to existing market data fees as well.

In accordance with the Guidance, the Exchange has provided sufficient detail to support a finding that the proposed fees are consistent with the Exchange Act. The proposal includes a detailed description of the Exchange's costs and how the Exchange determined to allocate those costs related to the proposed fees. In fact, the detail and analysis provided in this proposed rule change far exceed the level of disclosure provided in other exchange fee filings that have not been suspended by the Commission during its 60-day suspension period. A Commission determination that it is unable to make a finding that this proposed rule change is consistent with the Exchange Act would run contrary to the Commission Staff's treatment of other recent exchange fee proposals that have not been suspended and remain in effect today.[38] For example, a proposed fee filing that closely resembles the Exchange's current filing was submitted in 2021 by Nasdaq PHLX LLC (''PHLX''), which increased fees for PHLX's end of day, intra-day and historical market data, and adopted fees for external distribution of PHLX's derived data.[39] This filing was submitted on September 30, 2021, over two years after the Staff's Guidance was issued. In that filing, PHLX argued that the proposed fees were subject to competing products' fees at other exchanges and that there were available substitutes. This filing provided no cost based data or revenue analysis to support the amount of the proposed fees. Among other things, PHLX did not provide a description of the costs underlying its market data feeds to show that these particular fees did not generate supra-competitive profits or describe how any potential profit may be offset by increased costs associated with another fee included in its proposal. This filing, nonetheless, was not suspended by the Commission and remains in effect today.

The Exchange notes that the Investors Exchange, Inc. (''IEX'') recently submitted a proposed rule change to adopt fees for two real-time proprietary market data feeds, TOPS and DEEP (''IEX Fee Proposal''). Like the Exchange proposes herein, IEX previously provided its TOP and DEEP market data feeds for free and proposed to adopt modest, below market fees. Also like in this proposal, the IEX Fee Proposal included a detailed subscriber data and cost-based analysis in compliance with the Guidance. Nonetheless, on December 30, 2021, the Commission suspended the IEX Fee Proposal and instituted proceedings to determine whether to approve or disapprove the IEX Fee Proposal.[40]

The Commission received three comment letters on the IEX Order.[41] The Virtu Letter and HMA Letter 2 specifically applaud the amount of detail included in the IEX Fee Proposal. Specifically, the Virtu Letter states that ''[i]n significant detail, IEX provides data about three cost components: '(1) Direct costs, such as servers, infrastructure, and monitoring; (2) enhancement initiative costs (*e.g.,* new functionality for IEX Data and increased capacity for the proprietary market data feeds . . .); and (3) personnel costs.' ''[42] HMA Letter 2 similarly commends the level of detail included in the IEX Fee Proposal and also highlights the disparate treatment by Commission Staff of exchange fee filings.[43] HMA Letter 2 provides three examples to support this assertion.[44] The Nasdaq Letter urges the Commission to approve the IEX Fee Proposal promptly and raises concern the questions asked by the Commission in the IEX Order imply that they are exercising rate making authority that they clearly do not possess. The Nasdaq Letter states that ''[i]f the Commission believes it has authority to conduct cost-plus ratemaking, the Administrative Procedure Act dictates that it must propose a rule for notice and comment and that its final rule must be prepared

[38] *See, e.g.,* Securities Exchange Act Release Nos. 93293 (October 12, 2021), 86 FR 57716 (October 18, 2021) (SR–PHLX–2021–58) (increasing several market data fees and adopting new market data fee without providing a cost based justification); 91339 (March 17, 2021), 86 FR 15524 (March 23, 2021) (SR–CboeBZX–2021–020) (increasing fees for a market data product while not providing a cost based justification for the increase); 93293 (October 21, 2021), 86 FR 57716 (October 18, 2021) (SR–PHLX–2021–058) (increasing fees for historical market data while not providing a cost based justification for the increase); 92970 (September 14, 2021), 86 FR 52261 (September 20, 2021) (SR–CboeBZX–2021–047) (adopting fees for a market data related product while not providing a cost based justification for the fees); and 89826 (September 10, 2021), 85 FR 57900 (September 16, 2021) (SR–CBOE–2020–086) (increasing connectivity fees without including a cost based justification).

[39] *See* Securities Exchange Act Release No. 93293 (October 12, 2021), 86 FR 57716 (October 18, 2021) (SR–PHLX–2021–58) (increasing several market data fees and adopting new market data fee without providing a cost based justification).

[40] *See* Securities Exchange Act Release No. 93883 (December 30, 2021), 87 FR 523 (January 5, 2021) (SR–IEX–2021–14) (the ''IEX Order'').

[41] *See* letters to Ms. Venessa A. Countryman, Secretary, Commission, from Douglas A. Cifu, Chief Executive Officer, Virtu Financial, Inc., dated January 26, 2022 (the ''Virtu Letter''), Tyler Gellasch, Executive Director, Healthy Markets Association (''HMA''), dated January 26, 2022 (the ''HMA Letter 2''), and Erika Moore, Vice President and Corporate Secretary, The Nasdaq Stock Market LLC, dated January 27, 2022 (the ''Nasdaq Letter'').

[42] *See* Virtu Letter at page 3, *id.*

[43] HMA previously expressed their ''worry that the Commission's process for reviewing and evaluating exchange filings may be inconsistently applied.'' *See* letter from Tyler Gellasch, Executive Director, HMA, to Hon. Gary Gensler, Chair, Commission, dated October 29, 2021 (commenting on SR–CboeEDGA–2021–017, SR–CboeBYX–2021–020, SR–Cboe–BZX–2021–047, SR–CboeEDGX–2021–030, SR–MIAX–2021–41, SR–PEARL–2021–45, and SR–EMERALD–2021–29 and stating that ''MIAX has repeatedly filed to change its connectivity fees in a way that will materially lower costs for many users, while increasing the costs for some of its heaviest of users. These filings have been withdrawn and repeatedly refiled. *Each time, however, the filings contain significantly greater information about who is impacted and how than other filings that have been permitted to take effect without suspension*'') (*emphasis added*) (''HMA Letter 1'').

[44] *See* HMA Letter 2 at 2–3. The Exchange has provided further examples to support HMA's assertion above. *See supra* note 39 and accompanying text.

to withstand judicial scrutiny.'' [45] The Exchange agrees.

The Exchange believes exchanges, like all businesses, should be provided flexibility when allocating costs and resources they deem necessary to operate their business, including providing market data and access services. The Exchange notes that costs and resource allocations may vary from business to business and, likewise, costs and resource allocations may differ from exchange to exchange when it comes to providing market data and access services. It is a business decision that must be evaluated by each exchange as to how to allocate internal resources and what costs to incur internally or via third parties that it may deem necessary to support its business and its provision of market data and access services to market participants. An exchange's costs may also vary based on fees charged by third parties and periodic increases to those fees that may be outside of the control of an exchange.

To determine the Exchange's projected revenue associated with the proposed fees in the instant filing, the Exchange analyzed the number of Members and non-Members currently subscribing to the cToM data feeds and used a recent monthly billing cycle representative of 2021 monthly revenue. The Exchange also provided its baseline by analyzing June 2021, the monthly billing cycle prior to the proposed fees going into effect, and compared it to its expenses for that month. As discussed below, the Exchange does not believe it is appropriate to factor into its analysis projected or estimated future revenue growth or decline for purposes of these calculations, given the uncertainty of such projections due to the continually changing market data needs of market participants and potential increase in internal and third party expenses. The Exchange is presenting its revenue and expense associated with the proposed fees in this filing in a manner that is consistent with how the Exchange presents its revenue and expense in its Audited Unconsolidated Financial Statements. The Exchange's most recent Audited Unconsolidated Financial Statement is for 2020. However, since the revenue and expense associated with the proposed fees were not in place in 2020 or for the first six months of 2021, the Exchange believes its 2020 Audited Unconsolidated Financial Statement is not representative of its current total annualized revenue and costs associated with the proposed fees. Accordingly, the Exchange believes it is more appropriate to analyze the proposed fees utilizing its 2021 revenue and costs, as described herein, which utilize the same presentation methodology as set forth in the Exchange's previously-issued Audited Unconsolidated Financial Statements. Based on this analysis, the Exchange believes that the proposed fees are reasonable because they will allow the Exchange to recover its costs associated with providing services related to the proposed fees and not result in excessive pricing or supra-competitive profit. Since 2016, when the Exchange adopted Complex Order functionality, the Exchange has spent time and resources building out various Complex Order functionality in its System to provide better trading strategies and risk functionality for market participants in order to better compete with other exchanges' complex functionality and similar data products focused on complex orders.[46] The cToM data product allows market participants to better utilize the Exchange's Complex Order functionality by providing insights into the Exchange's Complex Order flow. The Exchange notes that one market participant ceased subscribing to the cToM feed since July 1, 2021, the date on which the fees became effective pursuant to the First Proposed Rule Change.

As outlined in more detail below, the Exchange projects that the final annualized expense for 2021 to provide cToM data to be $273,494 per annum or an average of $22,791.17 per month. The Exchange implemented the proposed fees on July 1, 2021 in the First Proposed Rule Change. For June 2021, prior to the proposed fees, Exchange Members and non-Members subscribed to a total of 17 cToM data feeds for which the Exchange charged $0, as it has for the past five years. This resulted in a loss of approximately $22,791.17 for that month. For the month of November 2021, which includes the proposed fees, Exchange Members and non-Members purchased 16 cToM data feeds, for which the Exchange charged approximately $21,000 for that month.[47] This resulted in a loss of approximately $1,791.17 for that month (a margin of approximately −8.5%). The Exchange cautions that this margin is likely to fluctuate from month to month based on the uncertainty of predicting how many cToM data feeds may be purchased from month to month as Members and non-Members are able to add and drop subscriptions at any time based on their own business decisions. This margin may also decrease due to the significant inflationary pressure on capital items that the Exchange needs to purchase to maintain the Exchange's technology and systems.[48] The Exchange has been subject to price increases upwards of 30% during the past year on network equipment due to supply chain shortages. This, in turn, results in higher overall costs for ongoing system maintenance, but also to purchase the items necessary to ensure ongoing system resiliency, performance, and determinism. These costs are expected to continue to go up as the U.S. economy continues to struggle with supply chain and inflation related issues.

Further, the Exchange chose to provide cToM data for free for the past five years to attract order flow and encourage market participants to experience the determinism and resiliency of the Exchange's trading systems and market data products. This resulted in the Exchange forgoing revenue it could have generated from assessing any fees. The Exchange could have sought to charge fees for the cToM data feed at the outset, but that could have served to discourage participation on the Exchange. Instead, the Exchange chose to provide a free exchange data product to the options industry, which resulted in no revenues for providing this service for five years. The Exchange now proposes to amend its fee structure to enable it to continue to maintain and improve its overall market and systems while also providing a highly reliable and deterministic trading system to the marketplace, complete with robust market data products, including cToM.

As mentioned above, the Exchange projects that the final annualized

[45] *See* Nasdaq Letter at page 13, *id.*

[46] *See* Securities Exchange Act Release Nos. 79405 (November 28, 2016), 81 FR 87086 (December 2, 2016) (SR–MIAX–2016–44) (amendment to clarify the manner in which the System allocates contracts at the end of a Complex Auction); 80089 (February 22, 2017), 82 FR 12153 (February 28, 2017) (SR–MIAX–2017–06) (adopting the Complex MIAX Options Price Collar, an additional price protection feature); 81229 (July 27, 2017), 82 FR 36023 (August 2, 2017) (SR–MIAX–2017–34) (amendment to ensure price and trade protections apply to Complex Orders); 89085 (June 17, 2020), 85 FR 37719 (June 23, 2020) (SR–MIAX–2020–16) (adopting new order type, Complex Attributable Order).

[47] The Exchange notes that one market participant cancelled its cToM subscription since the First Proposed Rule change became effective on July 1, 2021.

[48] *See* ''Supply chain chaos is already hitting global growth. And it's about to get worse'', by Holly Ellyatt, CNBC, *available at https://www.cnbc.com/2021/10/18/supply-chain-chaos-is-hitting-global-growth-and-could-get-worse.html* (October 18, 2021); *and* ''There will be things that people can't get, at Christmas, White House warns'' by Jarrett Renshaw and Trevor Hunnicutt, Reuters, *available at https://www.reuters.com/world/us/americans-may-not-get-some-christmas-treats-white-house-officials-warn-2021-10-12/* (October 12, 2021).

expense for 2021 to provide cToM data to be approximately $273,494 per annum or an average of $22,791.17 per month and that these costs are expected to increase not only due to anticipated significant inflationary pressure, but also periodic fee increases by third parties.[49] The Exchange notes that there are material costs associated with providing the infrastructure and headcount to fully-support access to the Exchange and various Exchange products. The Exchange incurs technology expense related to establishing and maintaining Information Security services, enhanced network monitoring and customer reporting, as well as Regulation SCI mandated processes, associated with its network technology. While some of the expense is fixed, much of the expense is not fixed, and thus increases the cost to the Exchange to provide services associated with the proposed fees. For example, new Members to the Exchange may require the purchase of additional hardware to support those Members as well as enhanced monitoring and reporting of customer performance that the Exchange and its affiliates provide. Further, as the total number of Members increases, the Exchange and its affiliates may need to increase their data center footprint and consume more power, resulting in increased costs charged by their third-party data center provider. Accordingly, the cost to the Exchange and its affiliates to provide services and products to its Members is not fixed and indeed is likely to increase rather than decrease over time. The Exchange believes the proposed fees are a reasonable attempt to offset a portion of the costs to the Exchange associated with providing certain Exchange products.

The Exchange only has four primary sources of revenue and cost recovery mechanisms to fund all of its operations: transaction fees, access fees, regulatory fees, and market data fees. Accordingly, the Exchange must cover all of its expenses from these four primary sources of revenue and cost recovery mechanisms. Until recently, the Exchange has operated at a cumulative net annual loss since it launched operations in 2008.[50] This is a result of providing a low cost alternative to attract order flow and encourage market participants to experience the high determinism and resiliency of the Exchange's trading Systems. To do so, the Exchange chose to waive the fees for some non-transaction related services and market data products or provide them at a very marginal cost, which has not been profitable to the Exchange, but beneficial to the overall options industry. This resulted in the Exchange forgoing revenue it could have generated from assessing any amount of fees.

The Exchange believes that the proposed fees are fair and reasonable because they will not result in excessive pricing or supra-competitive profit, when comparing the total annual expense that the Exchange projects to incur in connection with providing these services versus the total annual revenue that the Exchange projects to collect in connection with services associated with the proposed fees. As mentioned above, for 2021,[51] the total annual expense for providing the services associated with the proposed fees is projected to be approximately $273,494 per annum, or approximately $22,791.17 per month. This projected total annual expense is comprised of the following, all of which are directly related to the services associated with the proposed fees: (1) Third-party expense, relating to fees paid by the Exchange to third-parties for certain products and services; and (2) internal expense, relating to the internal costs of the Exchange to provide the services associated with the proposed fees.[52] As noted above, the Exchange believes it is more appropriate to analyze the proposed fees utilizing its 2021 revenue and costs, which utilize the same presentation methodology as set forth in the Exchange's previously-issued Audited Unconsolidated Financial Statements.[53] The $273,494 projected total annual expense is directly related to the services associated with the proposed fees, and not any other product or service offered by the Exchange. It does not include general costs of operating matching engines and other trading technology. No expense amount was allocated twice.

As discussed above, the Exchange conducted an extensive cost review in which the Exchange analyzed nearly every expense item in the Exchange's general expense ledger (this includes over 150 separate and distinct expense items) to determine whether each such expense relates to the services associated with the proposed fees, and, if such expense did so relate, what portion (or percentage) of such expense actually supports those services, and thus bears a relationship that is, ''in nature and closeness,'' directly related to those services. In performing this calculation, the Exchange considered other services and to which the expense may be applied and how much of the expense is directly or indirectly utilized in providing those other services. The sum of all such portions of expenses represents the total cost of the Exchange to provide services associated with the proposed fees.

External Expense Allocations

For 2021, total third-party expense relating to fees paid by the Exchange to third-parties for certain products and services for the Exchange to be able to provide the services associated with the proposed fees, is projected to be $5,398. This includes, but is not limited to, a portion of the fees paid to: (1) Equinix, for data center services, for the primary, secondary, and disaster recovery locations of the Exchange's trading system infrastructure; (2) Zayo Group Holdings, Inc. (''Zayo'') for network services (fiber and bandwidth products and services) linking the Exchange's office locations in Princeton, New Jersey and Miami, Florida, to all data center locations; and (3) various other hardware and software providers (including Dell and Cisco, which support the production environment in which Members connect to the network to trade, receive market data, etc.). For clarity, the Exchange took a

[49] For example, on October 20, 2021, ICE Data Services announced a 3.5% price increase effective January 1, 2022 for most services. The price increase by ICE Data Services includes their Secure Financial Transaction Infrastructure (''SFTI'') network, which is relied on by a majority of market participants, including the Exchange. *See* email from ICE Data Services to the Exchange, dated October 20, 2021. The Exchange further notes that on October 22, 2019, the Exchange was notified by ICE Data Services that it was raising its fees charged to the Exchange by approximately 11% for the SFTI network.

[50] The Exchange has incurred a cumulative loss of $175 million since its inception in 2008 to 2020, the last year for which the Exchange's Form 1 data is available. *See* Exchange's Form 1/A, Application for Registration or Exemption from Registration as a National Securities Exchange, filed July 28, 2021, *available at https://www.sec.gov/Archives/edgar/vprr/2100/21000460.pdf.*

[51] The Exchange has not yet finalized its 2021 year end results.

[52] The percentage allocations used in this proposed rule change may differ from past filings from the Exchange or its affiliates due to, among other things, changes in expenses charged by third-parties, adjustments to internal resource allocations, and different system architecture of the Exchange as compared to its affiliates.

[53] For example, the Exchange previously noted that all third-party expense described in its prior fee filing was contained in the information technology and communication costs line item under the section titled ''Operating Expenses Incurred Directly or Allocated From Parent,'' in the Exchange's 2019 Form 1 Amendment containing its financial statements for 2018. *See* Securities Exchange Act Release No. 87875 (December 31, 2019), 85 FR 770 (January 7, 2020) (SR–MIAX–2019–51). Accordingly, the third-party expense described in this filing is attributed to the same line item for the Exchange's 2021 Form 1 Amendment, which will be filed in 2022.

conservative approach in determining the expense and the percentage of that expense to be allocated to providing the services associated with the proposed fees. Only a portion of all fees paid to such third-parties is included in the third-party expenses described herein, and no expense amount is allocated twice. Accordingly, the Exchange does not allocate its entire information technology and communication costs to the market data product associated with the proposed fees. Further, the Exchange notes that, with respect to the expenses included herein, those expenses only cover the MIAX market; expenses associated with MIAX Pearl for its options and equities markets and MIAX Emerald, are accounted for separately and are not included within the scope of this filing. As noted above, the percentage allocations used in this proposed rule change may differ from past filings from the Exchange or its affiliates due to, among other things, changes in expenses charged by third-parties, adjustments to internal resource allocations, and different system architecture of the Exchange as compared to its affiliates. Further, as part its ongoing assessment of costs and expenses, the Exchange recently conducted a periodic thorough review of its expenses and resource allocations, which, in turn, resulted in revised percentage allocations in this filing.

The Exchange believes it is reasonable to allocate such third-party expense described above towards the total cost to the Exchange to provide the services associated with the proposed fees. In particular, the Exchange believes it is reasonable to allocate the identified portion of the Equinix expense because Equinix operates the data centers (primary, secondary, and disaster recovery) that host the Exchange's network infrastructure. This includes, among other things, the necessary storage space, which continues to expand and increase in cost, power to operate the network infrastructure, and cooling apparatuses to ensure the Exchange's network infrastructure maintains stability. Without these services from Equinix, the Exchange would not be able to operate and support the network and provide the cToM product associated with the proposed fees to its Members, non-Members and their customers. The Exchange did not allocate all of the Equinix expense toward the cost of providing the cToM product associated with the proposed fees, only that portion which the Exchange identified as being specifically mapped to providing the cToM product associated with the proposed fees. According to the Exchange's calculations, it allocated approximately 0.20% of the total applicable Equinix expense to providing the services associated with the proposed fees. The Exchange believes this allocation is reasonable because it represents the Exchange's actual cost to provide the cToM product associated with the proposed fees, and not any other service, as supported by its cost review.[54]

The Exchange believes it is reasonable to allocate the identified portion of the Zayo expense because Zayo provides the internet, fiber and bandwidth connections with respect to the network, linking the Exchange with its affiliates, MIAX Pearl and MIAX Emerald, as well as the data center and disaster recovery locations. As such, all of the trade data, including the billions of messages each day per exchange, flow through Zayo's infrastructure over the Exchange's network. Without these services from Zayo, the Exchange would not be able to operate and support the network and provide the cToM data associated with the proposed fees. The Exchange did not allocate all of the Zayo expense toward the cost of providing the cToM data associated with the proposed fees, only the portion which the Exchange identified as being specifically mapped to providing the cToM data associated with the proposed fees. According to the Exchange's calculations, it allocated approximately 0.20% of the total applicable Zayo expense to providing the services associated with the proposed fees. The Exchange believes this allocation is reasonable because it represents the Exchange's actual cost to provide the cToM data associated with the proposed fees, and not any other service, as supported by its cost review.[55]

The Exchange did not allocate any expense associated with the proposed fees towards SFTI and various other service providers' (including Thompson Reuters, NYSE, Nasdaq, and Internap) because the MIAX architecture takes advantage of an advance in design to eliminate the need for a market data distribution gateway layer. The computation and dissemination via an API is done solely within the match engine environment and is then delivered via the Member and non-Member connectivity infrastructure. This architecture delivers a market data system that is more efficient both in cost and performance. Accordingly, the Exchange determined not to allocate any expense associated with SFTI and various other service providers.

The Exchange believes it is reasonable to allocate the identified portion of the other hardware and software provider expense because this includes costs for dedicated hardware licenses for switches and servers, as well as dedicated software licenses for security monitoring and reporting across the network. Without this hardware and software, the Exchange would not be able to operate and support the network and provide cToM data to its Members, non-Members and their customers. The Exchange did not allocate all of the hardware and software provider expense toward the cost of providing the cToM data associated with the proposed fees, only the portions which the Exchange identified as being specifically mapped to providing the cToM data associated with the proposed fees. According to the Exchange's calculations, it allocated approximately 0.20% of the total applicable hardware and software provider expense to providing the services associated with the proposed fees. The Exchange believes this allocation is reasonable because it represents the Exchange's actual cost to provide the cToM data associated with the proposed fees.[56]

Internal Expense Allocations

For 2021, total projected internal expenses relating to the Exchange providing the cToM data associated with the proposed fees, is projected to be $268,096. This includes, but is not limited to, costs associated with: (1) Employee compensation and benefits for full-time employees that support the cToM data product associated with the proposed fees, including staff in network operations, trading operations, development, system operations, and business that support those employees and functions; (2) depreciation and amortization of hardware and software used to provide the cToM data product associated with the proposed fees, including equipment, servers, cabling, purchased software and internally developed software used in the production environment to support the network for trading; and (3) occupancy costs for leased office space for staff that provide the cToM data associated with

[54] As noted above, the percentage allocations used in this proposed rule change may differ from past filings from the Exchange or its affiliates due to, among other things, changes in expenses charged by third-parties, adjustments to internal resource allocations, and different system architecture of the Exchange as compared to its affiliates. Again, as part its ongoing assessment of costs and expenses, the Exchange recently conducted a periodic thorough review of its expenses and resource allocations which, in turn, resulted in a revised percentage allocations in this filing.

[55] *Id.*

[56] *Id.*

the proposed fees. The breakdown of these costs is more fully described below.

For clarity, and as stated above, the Exchange took a conservative approach in determining the expense and the percentage of that expense to be allocated to providing services in connection with the proposed fees. Only a portion of all such internal expenses are included in the internal expense herein, and no expense amount is allocated twice. Accordingly, the Exchange does not allocate its entire costs contained in those items to the cToM data associated with the proposed fees. This may result in the Exchange under allocating an expense to the provision of access services in connection with the proposed fees and such expenses may actually be higher or increase above what the Exchange utilizes within this proposal. Further, as part its ongoing assessment of costs and expenses (described above), the Exchange recently conducted a periodic thorough review of its expenses and resource allocations which, in turn, resulted in a revised percentage allocations in this filing.

The Exchange believes it is reasonable to allocate such internal expense described above towards the total cost to the Exchange to provide the cToM data associated with the proposed fees. In particular, the Exchange's employee compensation and benefits expense relating to providing the cToM data associated with the proposed fees is projected to be approximately $251,427, which is only a portion of the $12.6 million total projected expense for employee compensation and benefits. The Exchange believes it is reasonable to allocate the identified portion of such expense because this includes the time spent by employees of several departments, including Technology, Back Office, Systems Operations, Networking, Business Strategy Development (who create the business requirement documents that the Technology staff use to develop network features, products and enhancements), and Trade Operations. As part of the extensive cost review conducted by the Exchange, the Exchange reviewed the amount of time spent by nearly every employee on matters relating to cToM. Without these employees, the Exchange would not be able to provide the cToM product to its Members, non-Members and their customers. The Exchange did not allocate all of the employee compensation and benefits expense toward the cost of the cToM product, only the portion which the Exchange identified as being specifically mapped to providing the cToM product associated with the proposed fees. According to the Exchange's calculations, it allocated approximately 2.0% of the total applicable employee compensation and benefits expense to providing the services associated with the proposed fees. The Exchange believes this allocation is reasonable because it represents the Exchange's actual cost to provide the cToM data associated with the proposed fees, and not any other service, as supported by its cost review.[57]

The Exchange's depreciation and amortization expense relating to providing the cToM data associated with the proposed fees is projected to be $3,884, which is only a portion of the $4.8 million total projected expense for depreciation and amortization. The Exchange believes it is reasonable to allocate the identified portion of such expense because such expense includes the actual cost of the computer equipment, such as dedicated servers, computers, laptops, monitors, information security appliances and storage, and network switching infrastructure equipment, including switches and taps that were purchased to operate and support the network and provide the cToM product. Without this equipment, the Exchange would not be able to operate the network and provide the cToM product to its Members, non-Members and their customers. The Exchange did not allocate all of the depreciation and amortization expense toward the cost of providing the cToM product, only the portion which the Exchange identified as being specifically mapped to providing the cToM product. According to the Exchange's calculations, it allocated approximately 0.20% of the total applicable depreciation and amortization expense to providing the services associated with the proposed fees, as this product would not be possible without relying on such. The Exchange believes this allocation is reasonable because it represents the Exchange's actual cost to provide the cToM product associated with the proposed fees, and not any other service, as supported by its cost review.[58]

The Exchange's occupancy expense relating to providing the cToM product associated with the proposed fees is projected to be $12,785, which is only a portion of the $0.60 million total projected expense for occupancy. The Exchange believes it is reasonable to allocate the identified portion of such expense because such expense represents the portion of the Exchange's cost to rent and maintain a physical location for the Exchange's staff who operate and support the network, including providing the cToM product. This amount consists primarily of rent for the Exchange's Princeton, New Jersey office, as well as various related costs, such as physical security, property management fees, property taxes, and utilities. The Exchange operates its Network Operations Center (''NOC'') and Security Operations Center (''SOC'') from its Princeton, New Jersey office location. A centralized office space is required to house the staff that operates and supports the network and Exchange products. The Exchange currently has approximately 200 employees. Approximately two-thirds of the Exchange's staff are in the Technology department, and the majority of those staff have some role in the operation and performance of the services associated with the proposed fees. Accordingly, the Exchange believes it is reasonable to allocate the identified portion of its occupancy expense because such amount represents the Exchange's actual cost to house the equipment and personnel who operate and support the Exchange's network infrastructure and the market data services associated with the proposed fees. The Exchange did not allocate all of the occupancy expense toward the cost of providing the market data services associated with the proposed fees, only the portion which the Exchange identified as being specifically mapped to operating and supporting the network. According to the Exchange's calculations, it allocated approximately 2.0% of the total applicable occupancy expense to providing the services associated with the proposed fees. The Exchange believes this allocation is reasonable because it represents the Exchange's cost to provide the market data services associated with the proposed fees, and not any other service, as supported by its cost review.[59]

Based on the above, the Exchange believes that its provision of market data services associated with the proposed fees will not result in excessive pricing or supra-competitive profit. As discussed above, the Exchange projects that its annualized expense for 2021 to provide the cToM data associated with the proposed fees is projected to be approximately $273,494, or approximately $22,791.17 per month on average. The Exchange implemented the proposed fees on July 1, 2021 in the First Proposed Rule Change. For June

[57] *Id.*

[58] *Id.*

[59] *Id.*

2021, prior to the proposed fees, Members and non-Members subscribed to a total of 17 cToM data feeds, for which the Exchange charged $0, for the past five years. This resulted in a month over month loss of approximately $22,791.17. For the month of November 2021, which includes the proposed fees, Members and non-Members subscribed to 16 cToM data feeds, for which the Exchange charged approximately $21,000 for that month. This resulted in a loss of $1,791.17 for that month (a margin of approximately −8.5%). Therefore, the Exchange believes that the proposed fees are reasonable because the Exchange is operating at a negative margin for this product.

Again, the Exchange cautions that this margin is likely to fluctuate from month to month based in the uncertainty of predicting how many market data feeds may be purchased from month to month as Members and non-Members are free to add and drop subscriptions at any time based on their own business decisions. Notwithstanding that the revenue (and profit margin) may vary from month to month due to changes in subscriptions and to changes to the Exchange's expenses, the number of subscriptions has not materially changed over previous months. Consequently, the Exchange believes that the months it has used as a baseline to perform its assessment are representative of reasonably anticipated costs and expenses. This margin may also decrease due to the significant inflationary pressure on capital items that it needs to purchase to maintain the Exchange's technology and systems. Accordingly, the Exchange believes its total projected revenue for the providing the market data services associated with the proposed fees will not result in excessive pricing or supra-competitive profit.

The Exchange believes that conducting the above analysis on a per month basis is reasonable as the revenue generated from access services subject to the proposed fee generally remains static from month to month. The Exchange also conducted the above analysis on a per month basis to comply with the Guidance which requires a baseline analysis to assist in determining whether the proposal generates a supra-competitive profit. This monthly analysis was also provided in response to comment received on prior submissions of this proposed rule change.

The Exchange reiterates that it only has four primary sources of revenue and cost recovery mechanisms: Transaction fees, access fees, regulatory fees, and market data fees. Accordingly, the Exchange must cover all of its expenses from these four primary sources of revenue and cost recovery mechanisms. As a result, each of these fees cannot be ''flat'' and cover only the expenses directly related to the fee that is charged. The above revenue and associated profit margin therefore are not solely intended to cover the costs associated with providing services subject to the proposed fees. Moreover, as noted above, because the Exchange was previously offering the cToM data feed at no cost, the provision of the feed during the time in which it generated no revenue was being subsidized by other fees charged by the Exchange. The Exchange believes establishing a separate fee for the cToM feed is therefore reasonable and equitable so that the provision of the cToM data feed is no longer subsidized by other fees less directly related to providing cToM. Instead, the cToM feed will be supported primarily through fees charged only to users who choose to subscribe to cToM.

The Exchange believes it is reasonable, equitable and not unfairly discriminatory to allocate the respective percentages of each expense category described above towards the total cost to the Exchange of operating and supporting the network, including providing the market data services associated with the proposed fees because the Exchange performed a line-by-line item analysis of nearly every expense of the Exchange, and has determined the expenses that directly relate to providing market data services to the Exchange. Further, the Exchange notes that, without the specific third-party and internal expense items listed above, the Exchange would not be able to provide the market data services associated with the proposed fees to its Members, non-Members and their customers. Each of these expense items, including physical hardware, software, employee compensation and benefits, occupancy costs, and the depreciation and amortization of equipment, have been identified through a line-by-line item analysis to be integral to providing market data services. The proposed fees are intended to recover the costs of providing cToM data. Accordingly, the Exchange believes that the proposed fees are fair and reasonable because they do not result in excessive pricing or supra-competitive profit, when comparing the actual costs to the Exchange versus the projected annual revenue from the proposed fees.

No market participant is required by any rule or regulation to utilize the Exchange's Complex Order functionality or subscribe to the cToM data feed. Further, unlike orders on the Exchange's Simple Order Book, Complex Orders are not protected and will never trade through Priority Customer[60] orders, thus protecting the priority that is established in the Simple Order Book.[61] Additionally, unlike the continuous quoting requirements of Market Makers in the simple order market, there are no continuous quoting requirements respecting Complex Orders. It is a business decision whether market participants utilize Complex Order strategies on the Exchange and whether to purchase cToM data to help effect those strategies.

The Proposed Fees Are Reasonable When Compared to the Fees of Other Options Exchanges With Similar Market Share

The Exchange does not have visibility into other options exchanges' costs to provide market data or their fee markup over those costs, and therefore cannot use other exchange's market data fees as a benchmark to determine a reasonable markup over the costs of providing market data. Nevertheless, the Exchange believes the other exchange's market data fees are a useful example of alternative approaches to providing and charging for market data. To that end, the Exchange believes the proposed pricing is reasonable because the proposed rates are similar to or less than the fees charged by other options exchanges for similar data products.[62]

Until recently, the Exchange has operated at a cumulative net annual loss since it launched operations in 2008.[63] This is a result of providing a low cost alternative to attract order flow and encourage market participants to experience the high determinism and resiliency of the Exchange's trading Systems. To do so, the Exchange chose to waive the fees for some non-transaction related services and Exchange products (including the cToM data feed) or provide them at a very marginal cost, which was not profitable to the Exchange. This resulted in the Exchange forgoing revenue it could have generated from assessing any fees or higher fees. The Exchange could have sought to charge higher fees at the

[60] The term ''Priority Customer'' means a person or entity that (i) is not a broker or dealer in securities and (ii) does not place more than 390 orders in listed options per day on average during a calendar month for its own beneficial accounts(s). The term ''Priority Customer Order'' means an order for the account of a Priority Customer. *See* Exchange Rule 100.

[61] The ''Simple Order Book'' is the Exchange's regular electronic book of orders and quotes. *See* Exchange Rule 100.

[62] *See supra* notes 20, 21 and 22.

[63] *See supra* notes 48.

outset, but that could have served to discourage participation on the Exchange. Instead, the Exchange chose to provide a low cost exchange alternative to the options industry which resulted in lower initial revenues. An example of this is cToM, for which the Exchange only now seeks to adopt fees at a level similar to or lower than those of other options exchanges.

Since the Exchange initially established the cToM data product in 2016, all Exchange Members and non-Members have had the ability to receive the Exchange's cToM data free of charge for the past five years.[64] Since 2016, when the Exchange adopted Complex Order functionality, the Exchange has spent time and resources building out various Complex Order functionality in its System to provide better trading strategies and risk functionality for market participants in order to better compete with other exchanges' complex functionality and similar data products focused on complex orders.[65] The cToM data product allows market participants to better utilize the Exchange's Complex Order functionality by providing insights into the Exchange's Complex Order flow. The Exchange currently has 16 subscribers (14 Members and 2 non-Members) for its cToM data product. None of these subscribers has paid a specific fee to receive cToM data (other than the five months in which the First, Second and Third Proposed Rule Changes were in effect) but has received the benefit of the Exchange building out its Complex Order functionality to better compete with other exchanges complex functionality. The Exchange notes that one market participant ceased subscribing to the cToM feed since July 1, 2021, the date on which the fees became effective when established in the First Proposed Rule Change.

The Proposed Pricing Is Not Unfairly Discriminatory and Provides for the Equitable Allocation of Fees, Dues, and Other Charges

The Exchange believes that it is reasonable, equitable and not unfairly discriminatory to assess Internal Distributors fees that are less than the fees assessed for External Distributors for subscriptions to the cToM data feed because Internal Distributors have limited, restricted usage rights to the market data, as compared to External Distributors, which have more expansive usage rights. All Members and non-Members that determine to receive any market data feed of the Exchange (or its affiliates, MIAX Pearl and MIAX Emerald), must first execute, among other things, the MIAX Exchange Group Exchange Data Agreement (the ''Exchange Data Agreement'').[66] Pursuant to the Exchange Data Agreement, Internal Distributors are restricted to the ''internal use'' of any market data they receive. This means that Internal Distributors may only distribute the Exchange's market data to the recipient's officers and employees and its affiliates.[67] External Distributors may distribute the Exchange's market data to persons who are not officers, employees or affiliates of the External Distributor,[68] and may charge their own fees for the redistribution of such market data. Accordingly, the Exchange believes it is fair, reasonable and not unfairly discriminatory to assess External Distributors a higher fee for the Exchange's market data products as External Distributors have greater usage rights to commercialize such market data and can adjust their own fee structures if necessary. The Exchange also utilizes more resources to support External Distributors versus Internal Distributors, as External Distributors have reporting and monitoring obligations that Internal Distributors do not have, thus requiring additional time and effort of Exchange staff. The Exchange believes the proposed cToM fees are equitable and not unfairly discriminatory because the fee level results in a reasonable and equitable allocation of fees amongst subscribers for similar services, depending on whether the subscriber is an Internal or External Distributor. Moreover, the decision as to whether or not to purchase market data is entirely optional to all market participants. Potential purchasers are not required to purchase the market data, and the Exchange is not required to make the market data available. Purchasers may request the data at any time or may decline to purchase such data. The allocation of fees among users is fair and reasonable because, if market participants determine not to subscribe to the data feed, firms can discontinue their use of the cToM data.

Further, the Exchange believes that the proposal is equitable and not unfairly discriminatory because the proposed cToM fees will apply to all market participants of the Exchange on a uniform basis. The Exchange also notes that the proposed monthly cToM fees for Internal and External Distributors are the same prices that the Exchange charges for its ToM data product.

The Exchange believes the proposed change to delete certain text from Section 6)a) of the Fee Schedule promotes just and equitable principles of trade and removes impediments to and perfects the mechanism of a free and open market and a national market system because the proposed change is a non-substantive edit to the Fee Schedule to remove unnecessary text. The Exchange believes that this proposed change will provide greater clarity to Members and the public regarding the Exchange's Fee Schedule and that it is in the public interest for the Fee Schedule to be accurate and concise so as to eliminate the potential for confusion.

B. Self-Regulatory Organization's Statement on Burden on Competition

The Exchange does not believe that the proposed rule change will result in any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act.

Intra-Market Competition

The Exchange believes the proposed fees will not result in any burden on intra-market competition that is not necessary or appropriate in furtherance of the purposes of the Act because the proposed fees will allow the Exchange to recoup some of its costs in providing cToM to market participants. As described above, the Exchange has operated at a cumulative net annual loss since it launched operations in 2008[69] due to providing a low cost alternative to attract order flow and encourage market participants to experience the high determinism and resiliency of the Exchange's trading Systems. To do so, the Exchange chose to waive the fees for some non-transaction related services and Exchange products or provide them at a very marginal cost, which was not profitable to the Exchange. This resulted in the Exchange forgoing revenue it could have generated from assessing any

[64] *See supra* note 15.

[65] *See* Securities Exchange Act Release Nos. 79405 (November 28, 2016), 81 FR 87086 (December 2, 2016) (SR–MIAX–2016–44) (amendment to clarify the manner in which the System allocates contracts at the end of a Complex Auction); 80089 (February 22, 2017), 82 FR 12153 (February 28, 2017) (SR–MIAX–2017–06) (adopting the Complex MIAX Options Price Collar, an additional price protection feature); 81229 (July 27, 2017), 82 FR 36023 (August 2, 2017) (SR–MIAX–2017–34) (amendment to ensure price and trade protections apply to Complex Orders); 89085 (June 17, 2020), 85 FR 37719 (June 23, 2020) (SR–MIAX–2020–16) (adopting new order type, Complex Attributable Order).

[66] *See* Exchange Data Agreement, available at *https://miaxweb2.pairsite.com/sites/default/files/page-files/MIAX_Exchange_Group_Data_Agreement_09032020.pdf.*

[67] *See id.*

[68] *See id.*

[69] *See supra* notes 48.

fees or higher fees. The Exchange could have sought to charge higher fees at the outset, but that could have served to discourage participation on the Exchange. Instead, the Exchange chose to provide a low cost exchange alternative to the options industry which resulted in lower initial revenues. An example of this is cToM, for which the Exchange only now seeks to adopt fees at a level similar to or lower than those of other options exchanges.

Since the Exchange initially established the cToM data product in 2016, all Exchange Members and non-Members have had the ability to receive the Exchange's cToM data free of charge for the past five years.[70] Since 2016, when the Exchange adopted Complex Order functionality, the Exchange has spent time and resources building out various Complex Order functionality in its System to provide better trading strategies and risk functionality for market participants in order to better compete with other exchanges' complex functionality and similar data products focused on complex orders.[71] The Exchange now seeks to recoup its costs for providing cToM to market participants and believes the proposed fees will not result in excessive pricing or supra-competitive profit.

Inter-Market Competition

The Exchange also does not believe the proposed fees would cause any unnecessary or in appropriate burden on intermarket competition as other exchanges are free to introduce their own comparable data product and lower their prices to better compete with the Exchange's offering. The Exchange does not believe the proposed rule change would cause any unnecessary or inappropriate burden on inter-market competition. Particularly, the proposed product and fees apply uniformly to any purchaser, in that it does not differentiate between subscribers that purchase cToM. The proposed fees are set at a modest level that would allow any interested Member or non-Member to purchase such data based on their business needs.

The Exchange does not believe that the proposed rule change to make a minor, non-substantive edit to Section 6)a) of the Fee Schedule by deleting unnecessary text will result in any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act. This proposed rule change is not being made for competitive reasons, but rather is designed to remedy a minor non-substantive issue and will provide added clarity to the Fee Schedule. The Exchange believes that it is in the public interest for the Fee Schedule to be accurate and concise so as to eliminate the potential for confusion on the part of market participants. In addition, the Exchange does not believe the proposal will impose any burden on inter-market competition as the proposal does not address any competitive issues and is intended to protect investors by providing further transparency regarding the Exchange's Fee Schedule.

Regrettably, the Exchange believes that the application of the Guidance to date has adversely affected inter-market competition by impeding the ability of smaller, low cost exchanges to adopt or increase fees for their market data and access services (including connectivity and port products and services). Since the adoption of the Guidance, and even more so recently, it has become harder, particularly for smaller, low cost exchanges, to adopt or increase fees to generate revenue necessary to invest in systems, provide innovative trading products and solutions, and improve competitive standing to the benefit of the affected exchanges' market participants. Although the Guidance has served an important policy goal of improving disclosures in proposed rule changes and requiring exchanges to more clearly justify that their market data and access fee proposals are fair and reasonable, it has also been inconsistently applied and therefore negatively impacted exchanges, and particularly many smaller, low cost exchanges, that seek to adopt or increase fees despite providing enhanced disclosures and rationale to support their proposed fee changes.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others

Written comments were neither solicited nor received.

III. Suspension of the Proposed Rule Change

Pursuant to Section 19(b)(3)(C) of the Act,[72] at any time within 60 days of the date of filing of a proposed rule change pursuant to Section 19(b)(1) of the Act,[73] the Commission summarily may temporarily suspend the change in the rules of a self-regulatory organization (''SRO'') if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act. As discussed below, the Commission believes a temporary suspension of the proposed rule change is necessary and appropriate to allow for additional analysis of the proposed rule change's consistency with the Act and the rules thereunder.

As the Exchange further details above, the Exchange first filed a proposed rule change proposing fee changes as proposed herein on June 30, 2021, with the proposed fee changes effective beginning July 1, 2021. That proposal, MIAX–2021–28, was published for comment in the **Federal Register** on July 15, 2021.[74] On August 27, 2021, pursuant to Section 19(b)(3)(C) of the Act, the Commission: (1) Temporarily suspended the proposed rule change; and (2) instituted proceedings to determine whether to approve or disapprove the proposal.[75] On September 30, 2021, the Exchange withdrew the proposed rule change,[76] and filed two other proposed rule changes proposing fee changes as proposed herein,[77] which were each also subsequently withdrawn. The instant filing is substantially similar.[78]

When exchanges file their proposed rule changes with the Commission, including fee filings like the Exchange's present proposal, they are required to provide a statement supporting the proposal's basis under the Act and the rules and regulations thereunder applicable to the exchange.[79] The instructions to Form 19b–4, on which exchanges file their proposed rule changes, specify that such statement ''should be sufficiently detailed and specific to support a finding that the proposed rule change is consistent with [those] requirements.'' [80]

Among other things, exchange proposed rule changes are subject to Section 6 of the Act, including Sections 6(b)(4), (5), and (8), which requires the rules of an exchange to (1) provide for the equitable allocation of reasonable fees among members, issuers, and other persons using the exchange's

[70] *See supra* note 15.

[71] *See supra* note 63.

[72] 15 U.S.C. 78s(b)(3)(C).

[73] 15 U.S.C. 78s(b)(1).

[74] *See supra* note 5, and accompanying text.

[75] *See* Securities Exchange Act Release No. 92789, 86 FR 49364 (September 2, 2021) (''OIP'').

[76] *See* Securities Exchange Act Release No. 93471 (October 29, 2021), 86 FR 60947 (November 4, 2021).

[77] *See* Securities Exchange Act Release Nos. 93426 (October 26, 2021), 86 FR 60314 (November 1, 2021); 93808 (December 17, 2021), 86 FR 73011 (December 23, 2021).

[78] *See* OIP, *supra* note 75.

[79] *See* 17 CFR 240.19b–4 (Item 3 entitled ''Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change'').

[80] *Id.*

facilities;[81] (2) perfect the mechanism of a free and open market and a national market system, protect investors and the public interest, and not be designed to permit unfair discrimination between customers, issuers, brokers, or dealers;[82] and (3) not impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act.[83]

In temporarily suspending the Exchange's fee change, the Commission intends to further consider whether the proposed fees for the cToM market data feed are consistent with the statutory requirements applicable to a national securities exchange under the Act. In particular, the Commission will consider whether the proposed rule change satisfies the standards under the Act and the rules thereunder requiring, among other things, that an exchange's rules provide for the equitable allocation of reasonable fees among members, issuers, and other persons using its facilities; not permit unfair discrimination between customers, issuers, brokers or dealers; and do not impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act.[84]

Therefore, the Commission finds that it is appropriate in the public interest, for the protection of investors, and otherwise in furtherance of the purposes of the Act, to temporarily suspend the proposed rule change.[85]

IV. Proceedings To Determine Whether To Approve or Disapprove the Proposed Rule Change

In addition to temporarily suspending the proposal, the Commission also hereby institutes proceedings pursuant to Sections 19(b)(3)(C)[86] and 19(b)(2)(B) of the Act[87] to determine whether the proposed rule change should be approved or disapproved. Institution of such proceedings is appropriate at this time in view of the legal and policy issues raised by the proposed rule change. Institution of proceedings does not indicate that the Commission has reached any conclusions with respect to any of the issues involved. Rather, the Commission seeks and encourages interested persons to provide additional comment on the proposed rule change to inform the Commission's analysis of whether to disapprove the proposed rule change.

Pursuant to Section 19(b)(2)(B) of the Act,[88] the Commission is providing notice of the grounds for possible disapproval under consideration. The Commission is instituting proceedings to allow for additional analysis of whether the Exchange has sufficiently demonstrated how the proposed rule change is consistent with Sections 6(b)(4),[89] 6(b)(5),[90] and 6(b)(8)[91] of the Act. Section 6(b)(4) of the Act requires that the rules of a national securities exchange provide for the equitable allocation of reasonable dues, fees, and other charges among its members and issuers and other persons using its facilities. Section 6(b)(5) of the Act requires that the rules of a national securities exchange be designed, among other things, to promote just and equitable principles of trade, to remove impediments to and perfect the mechanism of a free and open market and a national market system and, in general, to protect investors and the public interest, and not be designed to permit unfair discrimination between customers, issuers, brokers, or dealers. Section 6(b)(8) of the Act requires that the rules of a national securities exchange not impose any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act.

The Commission asks that commenters address the sufficiency of the Exchange's statements in support of the proposal, which are set forth above, in addition to any other comments they may wish to submit about the proposed rule change. In particular, the Commission seeks comment on the following aspects of the proposal and asks commenters to submit data where appropriate to support their views:

1. *Cost Estimates and Allocation*. The Exchange states that it is not asserting that the proposed fees are constrained by competitive forces, but rather sets forth a ''cost-plus model,'' employing a ''conservative methodology'' that ''strictly considers only those costs that are most clearly directly related to the provision and maintenance of cToM data . . . .''[92] Setting forth its costs in providing the cToM data product, and as summarized in greater detail above, MIAX projects $273,494 in aggregate annual estimated costs for 2021 as the sum of: (1) $5,398 in third-party expenses paid in total to Equinix (0.20% of the total applicable expense) for data center services; Zayo Group Holdings for network services (0.20% of the total applicable expense); and various other hardware and software providers (0.20% of the total applicable expense) supporting the production environment, and (2) $268,096 in internal expenses, allocated to (a) employee compensation and benefit costs ($251,427, approximately 2.0% of the Exchange's total applicable employee compensation and benefits expense); (b) depreciation and amortization ($3,884, approximately 0.20% of the Exchange's and total applicable depreciation and amortization expense); and (c) occupancy costs ($12,785, approximately 2.0% of the Exchange's total applicable occupancy expense). Do commenters believe that the Exchange has provided sufficient detail about how it determined which costs are most clearly directly associated with providing and maintaining the cToM data product? The Exchange describes a ''proprietary'' process involving all Exchange department heads, including the finance department and numerous meetings between the Exchange's Chief Information Officer, Chief Financial Officer, Head of Strategic Planning and Operations, Chief Technology Officer, various members of the Legal Department, and other group leaders, but does not specify further what principles were applied in making these determinations or arriving at particular allocations. Do commenters believe further explanation is necessary? For employee compensation and benefit costs, for example, the Exchange calculated an allocation of employee time in several departments, including Technology, Back Office, Systems Operations, Networking, Business Strategy Development, and Trade Operations, but does not provide the job titles and salaries of persons whose time was accounted for, nor explain the methodology used to determine how much of an employee's time is devoted to that specific activity. What are commenters' views on whether the Exchange has provided sufficient detail on the identity and nature of services provided by third parties? Across all of the Exchange's projected costs, what are commenters' views on whether the Exchange has provided sufficient detail on the elements that go into market data costs, including how shared costs are allocated and attributed to market data expenses, to permit an independent review and assessment of the reasonableness of purported cost-based fees and the corresponding profit margin thereon? Should the Exchange be required to identify what Exchange products or services the remaining percentage of un-allocated expenses are attributable to (*e.g.,* what products or services are associated with the approximately 99.80% of applicable depreciation and amortization expenses that MIAX does *not* allocate to the proposed fees)? Do commenters believe that the costs projected for 2021 are generally representative of expected costs going forward (to the extent commenters consider 2021 to be a typical or atypical year), or should an exchange present an estimated

[81] 15 U.S.C. 78f(b)(4).

[82] 15 U.S.C. 78f(b)(5).

[83] 15 U.S.C. 78f(b)(8).

[84] *See* 15 U.S.C. 78f(b)(4), (5), and (8), respectively.

[85] For purposes of temporarily suspending the proposed rule change, the Commission has considered the proposed rule's impact on efficiency, competition, and capital formation. *See* 15 U.S.C. 78c(f).

[86] 15 U.S.C. 78s(b)(3)(C). Once the Commission temporarily suspends a proposed rule change, Section 19(b)(3)(C) of the Act requires that the Commission institute proceedings under Section 19(b)(2)(B) to determine whether a proposed rule change should be approved or disapproved.

[87] 15 U.S.C. 78s(b)(2)(B).

[88] *Id.*

[89] 15 U.S.C. 78f(b)(4).

[90] 15 U.S.C. 78f(b)(5).

[91] 15 U.S.C. 78f(b)(8).

[92] *See supra* note 37 and accompanying text.

range of costs with an explanation of how profit margins could vary along the range of estimated costs? Should the Exchange use cost projections or actual costs estimated for 2021 in a filing made in 2022, or make cost projections for 2022?

2. *Revenue Estimates and Profit Margin Range.* The Exchange provides a single monthly revenue figure as the basis for calculating the profit margin of −8.5%. Do commenters believe this is reasonable? If not, why not? The Exchange states that the proposed fees are ''designed to cover its costs with a limited return in excess of such costs,'' and that ''revenue and associated profit margin . . . are not solely intended to cover the costs associated with providing services subject to the proposed fees.'' [93] The profit margin is also dependent on the accuracy of the cost projections which, if inflated (intentionally or unintentionally), may render the projected profit margin meaningless. The Exchange acknowledges that this margin may fluctuate from month to month as Members and non-Members add and drop subscriptions,[94] and that costs may increase. The Exchange also states that the number of subscriptions has not materially changed over previous months and so the months that the Exchange has used as a baseline to perform its assessment are representative of reasonably anticipated costs and expenses.[95] The Exchange does not account for the possibility of cost decreases, however. What are commenters' views on the extent to which actual costs (or revenues) deviate from projected costs (or revenues)? Do commenters believe that the Exchange's methodology for estimating the profit margin is reasonable? Should the Exchange provide a range of profit margins that it believes are reasonably possible, and the reasons therefor?

3. *Reasonable Rate of Return.* The Exchange states that its expected profit margin is −8.5% and that the proposed fees are reasonable because the Exchange is operating at a negative margin for this product. Further, the Exchange states that it chose to initially provide the cToM data product for free and to forego revenue that they otherwise could have generated from assessing any fees.[96] What are commenters' views regarding what factors should be considered in determining what constitutes a reasonable rate of return for the cToM market data product? Do commenters believe it relevant to an assessment of reasonableness that, according to the Exchange, the Exchange's proposed fees are similar to or lower than fees charged by competing options exchanges with similar market share? Should an assessment of reasonable rate of return include consideration of factors other than costs; and if so, what factors should be considered, and why?

4. *Periodic Reevaluation.* The Exchange addresses whether it believes a material deviation from the anticipated profit margin would warrant the need to make a rule filing pursuant to Section 19(b) of the Act to increase or decrease the fees accordingly, stating that ''[a]ny requirement that an exchange should conduct a periodic re-evaluation on a set timeline of its cost justification and amend its fees accordingly should be established by the Commission holistically, applied to all exchanges and not just through pending fee proposals, such as this filing,'' and that ''[i]n order to be fairly applied, such a mandate should be applied to existing access fees as well.'' [97] In light of the impact that the number of subscriptions has on profit margins, and the potential for costs to decrease (or increase) over time, what are commenters' views on the need for exchanges to commit to reevaluate, on an ongoing and periodic basis, their cost-based data fees to ensure that the fees stay in line with their stated profitability projections and do not become unreasonable over time, for example, by failing to adjust for efficiency gains, cost increases or decreases, and changes in subscribers? How formal should that process be, how often should that reevaluation occur, and what metrics and thresholds should be considered? How soon after a new data fee change is implemented should an exchange assess whether its revenue and/or cost estimates were accurate and at what threshold should an exchange commit to file a fee change if its estimates were inaccurate? Should an initial review take place within the first 30 days after a data fee is implemented? 60 days? 90 days? Some other period?

5. *Fees for Internal Distributors versus External Distributors.* The Exchange argues that it is reasonable, equitable, and not unfairly discriminatory to assess Internal Distributors fees that are lower than the fees assessed for External Distributors for subscriptions to the cToM data feed ($1,250 per month for Internal Distributors versus $1,750 per month for External Distributors), since Internal Distributors have limited, restricted usage rights to the market data, as compared to External Distributors, which have more expansive usage rights, including rights to commercialize such market data.[98] In addition, the Exchange states that it ''utilizes more resources'' to support External Distributors as compared to Internal Distributors, as External Distributors have reporting and monitoring obligations that Internal Distributors do not have, thus requiring ''additional time and effort'' of the Exchange's staff.[99] What are commenters' views on the adequacy of the information the Exchange provides regarding the differential between the Internal Distributor and External Distributor fees? Do commenters believe that the fees for Internal Distributors and External Distributors, as well as the fee differences between Distributors, are supported by the Exchange's assertions that it sets the differentiated pricing structure in a manner that is equitable and not unfairly discriminatory? Do commenters believe that the Exchange should demonstrate how the proposed Distributor fee levels correlate with different costs to better substantiate how the Exchange ''utilizes more resources'' to support External Distributors versus Internal Distributors and permit an assessment of the Exchange's statement that ''External Distributors have reporting and monitoring obligations that Internal Distributors do not have, thus requiring additional time and effort of Exchange staff''? [100]

Under the Commission's Rules of Practice, the ''burden to demonstrate that a proposed rule change is consistent with the [Act] and the rules and regulations issued thereunder . . . is on the [SRO] that proposed the rule change.'' [101] The description of a proposed rule change, its purpose and operation, its effect, and a legal analysis of its consistency with applicable requirements must all be sufficiently detailed and specific to support an affirmative Commission finding,[102] and any failure of an SRO to provide this information may result in the Commission not having a sufficient basis to make an affirmative finding that a proposed rule change is consistent with the Act and the applicable rules and regulations.[103] Moreover, ''unquestioning reliance'' on an SRO's representations in a proposed rule change would not be sufficient to justify Commission approval of a proposed rule change.[104]

The Commission believes it is appropriate to institute proceedings to allow for additional consideration and comment on the issues raised herein, including as to whether the proposal is consistent with the Act, any potential comments or supplemental information provided by the Exchange, and any additional independent analysis by the Commission.

V. Request for Written Comments

The Commission requests written views, data, and arguments with respect to the concerns identified above, as well as any other relevant concerns. In particular, the Commission invites the written views of interested persons concerning whether the proposal is consistent with Sections 6(b)(4), 6(b)(5), and 6(b)(8), or any other provision of the Act, or the rules and regulations thereunder. The Commission asks that commenters address the sufficiency and merit of the Exchange's statements in support of the proposal, in addition to any other comments they may wish to

[93] *See supra* Section II.A.2.

[94] *See* text accompanying *supra* notes 47–48.

[95] *See supra* Section II.A.2.

[96] *See* text accompanying *supra* notes 70–71.

[97] *See supra* Section II.A.2.

[98] *See* text accompanying *supra* notes 66–68.

[99] *See id.*

[100] *See id.*

[101] Rule 700(b)(3), Commission Rules of Practice, 17 CFR 201.700(b)(3).

[102] *See id.*

[103] *See id.*

[104] *See Susquehanna Int'l Group, LLP* v. *Securities and Exchange Commission,* 866 F.3d 442, 446–47 (D.C. Cir. 2017) (rejecting the Commission's reliance on an SRO's own determinations without sufficient evidence of the basis for such determinations).

submit about the proposed rule change. Although there do not appear to be any issues relevant to approval or disapproval that would be facilitated by an oral presentation of views, data, and arguments, the Commission will consider, pursuant to Rule 19b–4, any request for an opportunity to make an oral presentation.[105]

Interested persons are invited to submit written data, views, and arguments concerning the proposed rule change, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's internet comment form (*http://www.sec.gov/rules/sro.shtml*); or
- Send an email to *rule-comments@sec.gov.* Please include File Number SR–MIAX–2022–10 on the subject line.

Paper Comments

- Send paper comments in triplicate to Secretary, Securities and Exchange Commission, 100 F Street NE, Washington, DC 20549–1090.

All submissions should refer to File Number SR–MIAX–2022–10. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's internet website (*http://www.sec.gov/rules/sro.shtml*). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street NE, Washington, DC 20549 on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change. Persons submitting comments are cautioned that we do not redact or edit personal identifying information from comment submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR–MIAX–2022–10 and should be submitted on or before March 15, 2022. Rebuttal comments should be submitted by March 29, 2022.

VI. Conclusion

It is Therefore Ordered, pursuant to Section 19(b)(3)(C) of the Act,[106] that File Number SR–MIAX–2022–10 be and hereby is, temporarily suspended. In addition, the Commission is instituting proceedings to determine whether the proposed rule change should be approved or disapproved.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[107]

J. Matthew DeLesDernier,

Assistant Secretary.

[FR Doc. 2022–03656 Filed 2–18–22; 8:45 am]

BILLING CODE 8011–01–P

[105] 15 U.S.C. 78s(b)(2). Section 19(b)(2) of the Act grants the Commission flexibility to determine what type of proceeding—either oral or notice and opportunity for written comments—is appropriate for consideration of a particular proposal by an SRO. *See* Securities Acts Amendments of 1975, Report of the Senate Committee on Banking, Housing and Urban Affairs to Accompany S. 249, S. Rep. No. 75, 94th Cong., 1st Sess. 30 (1975).

[106] 15 U.S.C. 78s(b)(3)(C).

[107] 17 CFR 200.30–3(a)(12), (57), and (58).

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–94259; File No. SR–MIAX–2022–08]

Self-Regulatory Organizations; Miami International Securities Exchange, LLC; Notice of Filing of a Proposed Rule Change To Amend Its Fee Schedule To Adopt a Tiered-Pricing Structure for Additional Limited Service MIAX Express Interface Ports; Suspension of and Order Instituting Proceedings To Determine Whether To Approve or Disapprove the Proposed Rule Change

February 15, 2022.

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (''Act''),[1] and Rule 19b–4 thereunder,[2] notice is hereby given that on February 1, 2022, Miami International Securities Exchange, LLC (''MIAX'' or ''Exchange'') filed with the Securities and Exchange Commission (''Commission'') a proposed rule change as described in Items I and II below, which Items have been prepared by the Exchange. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons and is, pursuant to Section 19(b)(3)(C) of the Act, hereby: (i) Temporarily suspending the rule change; and (ii) instituting proceedings to determine whether to approve or disapprove the proposed rule change.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

The Exchange is filing a proposal to amend the MIAX Options Fee Schedule (the ''Fee Schedule'') to amend certain port fees.

The text of the proposed rule change is available on the Exchange's website at *http://www.miaxoptions.com/rule-filings,* at MIAX's principal office, and at the Commission's Public Reference Room.

II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the Exchange included statements concerning the purpose of and basis for the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in Item IV [sic] below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

The Exchange proposes to amend the Fee Schedule to adopt a tiered-pricing structure for additional Limited Service MIAX Express Interface (''MEI'') Ports [3] available to Market Makers.[4] The Exchange believes a tiered-pricing structure will encourage Market Makers to be more efficient and economical when determining how to connect to the Exchange. This should also enable the Exchange to better monitor and provide access to the Exchange's network to ensure sufficient capacity and headroom in the System.[5]

The Exchange initially filed the proposed fee changes on August 2,

[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

[3] MIAX Express Interface is a connection to MIAX systems that enables Market Makers to submit simple and complex electronic quotes to MIAX. *See* Fee Schedule, note 26.

[4] The term ''Market Makers'' refers to Lead Market Makers (''LMMs''), Primary Lead Market Makers (''PLMMs''), and Registered Market Makers (''RMMs'') collectively. *See* Exchange Rule 100.

[5] The term ''System'' means the automated trading system used by the Exchange for the trading of securities. *See* Exchange Rule 100.

2021, with the changes being immediately effective.[6] The First Proposed Rule Change was published for comment in the **Federal Register** on August 19, 2021.[7] The Commission received one comment letter on the First Proposed Rule Change.[8] The Exchange withdrew the First Proposed Rule Change on September 28, 2021 and resubmitted its proposal (''Second Proposed Rule Change'').[9] The Second Proposed Rule Change was published for comment in the **Federal Register** on October 5, 2021.[10] The Second Proposed Rule Change provided additional justification for the proposed fee changes and addressed certain points raised in the single comment letter that was submitted on the First Proposed Rule Change. The Commission received four comment letters from three separate commenters on the Second Proposed Rule Change.[11] The Commission suspended the Second Proposed Rule Change on November 22, 2021.[12] The Exchange withdrew the Second Proposed Rule Change on December 1, 2021 and submitted a revised proposal for immediate effectiveness (''Third Proposed Rule Change'').[13] The Third Proposed Rule Change meaningfully attempted to address issues or questions that have been raised by providing additional justification and explanation for the proposed fee changes and directly respond to the points raised in SIG Letters 1, 2, and 3, as well as the SIFMA Letter submitted on the First and Second Proposed Rule Changes,[14] and feedback provided by Commission Staff during a telephone conversation on November 18, 2021 relating to the Second Proposed Rule Change. The Third Proposed Rule Change was published for comment in the **Federal Register** on December 20, 2021.[15] The Exchange receive no comment letters on the Third Proposed Rule Change. The Commission suspended the Third Proposed Rule Change on January 27, 2022.[16] The Exchange withdrew the Third Proposed Rule Change on February 1, 2022 and now submits this proposal for immediate effectiveness (''Fourth Proposed Rule Change''). This Fourth Proposed Rule Change provides additional justification and explanation for the proposed fee changes.

Additional Limited Service MEI Port Tiered-Pricing Structure

The Exchange proposes to amend the fees for additional Limited Service MEI Ports. Currently, the Exchange allocates two (2) Full Service MEI Ports [17] and two (2) Limited Service MEI Ports [18] per matching engine [19] to which each Market Maker connects. Market Makers may also request additional Limited Service MEI Ports for each matching engine to which they connect. The Full Service MEI Ports, Limited Service MEI Ports and the additional Limited Service MEI Ports all include access to the Exchange's primary and secondary data centers and its disaster recovery center. Market Makers may request additional Limited Service MEI Ports. Prior to the First Proposed Rule Change, Market Makers were assessed a $100 monthly fee for each additional Limited Service MEI Port for each matching engine. This fee was unchanged since 2016.[20]

The Exchange now proposes to move from a flat monthly fee per additional Limited Service MEI Port for each matching engine to a tiered-pricing structure for additional Limited Service MEI Ports for each matching engine under which the monthly fee would vary depending on the number of additional Limited Service MEI Ports the Market Maker elects to purchase. Specifically, the Exchange will continue to provide the first and second additional Limited Service MEI Ports for each matching engine free of charge, as described above, per the initial allocation of Limited Service MEI Ports that Market Makers receive. The Exchange now proposes the following tiered-pricing structure: (i) The third and fourth additional Limited Service MEI Ports for each matching engine will increase from the current flat monthly fee of $100 to $150 per port; (ii) the fifth and sixth additional Limited Service MEI Ports for each matching engine will increase from the current flat monthly fee of $100 to $200 per port; and (iii) the seventh to the twelfth additional Limited Service MEI Ports will increase from the current monthly flat fee of $100 to $250 per port (collectively, the ''Proposed Access Fees'').

The Exchange believes the other exchanges' port fees are a useful example of alternative approaches to providing and charging for port access

[6] *See* Securities Exchange Act Release No. 92661 (August 13, 2021), 86 FR 46737 (August 19, 2021) (SR–MIAX–2021–37).

[7] *Id.*

[8] *See* Letter from Richard J. McDonald, Susquehanna International Group, LLC (''SIG''), to Vanessa Countryman, Secretary, Commission, dated September 7, 2021 (''SIG Letter 1'').

[9] *See* Securities Exchange Act Release No. 93185 (September 29, 2021), 86 FR 55093 (October 5, 2021) (SR–MIAX–2021–43).

[10] *Id.*

[11] *See* letters from Richard J. McDonald, SIG, to Vanessa Countryman, Secretary, Commission, dated October 1, 2021 (''SIG Letter 2'') and October 26, 2021 (''SIG Letter 3''); *and* Ellen Green, Managing Director, Equity and Options Market Structure, Securities Industry and Financial Markets Association (''SIFMA''), to Vanessa Countryman, Secretary, Commission, dated November 26, 2021 (''SIFMA Letter'').

The Exchange notes that the Healthy Markets Association (''HMA'') submitted a comment letter on a related filing to amend fees for 10Gb ULL connections, on which SIG Letters 1, 2, and 3 as well as the SIFMA Letter also commented. *See* letter from Tyler Gellasch, Executive Director, HMA (''HMA''), to Hon. Gary Gensler, Chair, Commission, dated October 29, 2021 (commenting on SR–CboeEDGA–2021–017, SR–CboeBYX–2021–020, SR–Cboe–BZX–2021–047, SR–CboeEDGX–2021–030, SR–MIAX–2021–41, SR–PEARL–2021–45, and SR–EMERALD–2021–29 and stating that ''MIAX has repeatedly filed to change its connectivity fees in a way that will materially lower costs for many users, while increasing the costs for some of its heaviest of users. These filings have been withdrawn and repeatedly refiled. *Each time, however, the filings contain significantly greater information about who is impacted and how than other filings that have been permitted to take effect without suspension*'') (*emphasis added*) (''HMA Letter'').

[12] *See* Securities Exchange Act Release No. 93640 (November 22, 2021), 86 FR 67745 (November 29, 2021).

[13] *See* Securities Exchange Act Release No. 93771 (December 14, 2021), 86 FR 71940 (December 20, 2021) (SR–MIAX–2021–60).

[14] The Exchange notes that while the HMA Letter applauds the level of disclosure the Exchange included in the First and Second Proposed Rule Changes, the HMA Letter does not raise specific issues with the First or Second Proposed Rule Changes. Rather, it references the Exchange's proposals by way of comparison to show the varying levels of transparency in exchange fees filings and recommends changes to the Commission's review process of exchange fee filings generally. Therefore, the Exchange does not feel it is necessary to address the issues raised in the HMA Letter.

[15] *See supra* note 13.

[16] *See* Securities Exchange Act Release No. 94087 (January 27, 2022) (Suspension of and Order Instituting Proceedings to Determine Whether to Approve or Disapprove Proposed Rule Changes to Amend Fee Schedules to Adopt Tiered-Pricing Structures for Additional Limited Service MIAX and MIAX Emerald Express Interface Ports).

[17] Full Service MEI Ports provide Market Makers with the ability to send Market Maker quotes, eQuotes, and quote purge messages to the MIAX System. Full Service MEI Ports are also capable of receiving administrative information. Market Makers are limited to two Full Service MEI Ports per matching engine. *See* Fee Schedule, Section (5)(d)(ii), note 27.

[18] Limited Service MEI Ports provide Market Makers with the ability to send eQuotes and quote purge messages only, but not Market Maker Quotes, to the MIAX System. Limited Service MEI Ports are also capable of receiving administrative information. Market Makers initially receive two Limited Service MEI Ports per matching engine. *See* Fee Schedule, Section 5)d)ii), note 28.

[19] A ''matching engine'' is a part of the MIAX electronic system that processes options quotes and trades on a symbol-by-symbol basis. Some matching engines will process option classes with multiple root symbols, and other matching engines will be dedicated to one single option root symbol (for example, options on SPY will be processed by one single matching engine that is dedicated only to SPY). A particular root symbol may only be assigned to a single designated matching engine. A particular root symbol may not be assigned to multiple matching engines. *See* Fee Schedule, Section 5)d)ii), note 29.

[20] *See* Securities Exchange Act Release No. 79666 (December 22, 2016), 81 FR 96133 (December 29, 2016) (SR–MIAX–2016–47).

and provides the below table for comparison purposes only to show how its proposed fees compare to fees currently charged by other options exchanges for similar port access. As shown by the below table, the Exchange's proposed highest tier is still less than fees charged for similar port access provided by other options exchanges.

Exchange	Type of port	Monthly fee (per port)
MIAX (as proposed)	Limited Service MEI Port	1–2 ports. FREE (not changed in this proposal), 3–4 ports. $150, 5–6 ports. $200, 7 or more ports. $250.
NYSE American, LLC (''Amex'') [21]	Order/Quote Entry Port	$450.
NYSE Arca, Inc. (''Arca'') [22]	Order/Quote Entry Port	$450.
The NASDAQ Stock Market LLC (''NASDAQ'') [23].	SQF Port	1–5 ports. $1,500.00, 6–20 ports. $1,000.00, 21 or more ports. $500.

2. Statutory Basis

The Exchange believes that its proposal to amend its Fee Schedule is consistent with Section 6(b) of the Act [24] in general, and furthers the objectives of Section 6(b)(4) of the Act [25] in particular, in that it provides for the equitable allocation of reasonable dues, fees and other charges among Exchange Members and issuers and other persons using any facility or system which the Exchange operates or controls. The Exchange also believes the proposal furthers the objectives of Section 6(b)(5) of the Act [26] in that it is designed to promote just and equitable principles of trade, remove impediments to and perfect the mechanism of a free and open market and a national market system, and, in general protect investors and the public interest and is not designed to permit unfair discrimination between customers, issuers, brokers and dealers.

On March 29, 2019, the Commission issued an Order disapproving a proposed fee change by the BOX Market LLC Options Facility to establish connectivity fees for its BOX Network (the ''BOX Order'').[27] On May 21, 2019, the Commission Staff issued guidance ''to assist the national securities exchanges and FINRA . . . in preparing Fee Filings that meet their burden to demonstrate that proposed fees are consistent with the requirements of the Securities Exchange Act.'' [28] Based on both the BOX Order and the Guidance, the Exchange believes that the Proposed Access Fees are consistent with the Act because they (i) are reasonable, equitably allocated, not unfairly discriminatory, and not an undue burden on competition; (ii) comply with the BOX Order and the Guidance; (iii) are supported by evidence (including comprehensive revenue and cost data and analysis) that they are fair and reasonable because they will not result in excessive pricing or supra-competitive profit; and (iv) utilize a cost-based justification framework that is substantially similar to a framework previously used by the Exchange, and its affiliates MIAX Emerald, LLC (''MIAX Emerald'') and MIAX PEARL, LLC (''MIAX Pearl''), to amend other non-transaction fees.[29]

The Proposed Access Fees Will Not Result in a Supra-Competitive Profit

The Exchange believes that exchanges, in setting fees of all types, should meet very high standards of transparency to demonstrate why each new fee or fee amendment meets the requirements of the Act that fees be reasonable, equitably allocated, not unfairly discriminatory, and not create an undue burden on competition among market participants. The Exchange believes this high standard is especially important when an exchange imposes various access fees for market participants to access an exchange's marketplace. The Exchange deems ports to be access fees. It records these fees as part of its ''Access Fees'' revenue in its financial statements.

In the Guidance, the Commission Staff stated that, ''[a]s an initial step in assessing the reasonableness of a fee, staff considers whether the fee is constrained by significant competitive forces.'' [30] The Guidance further states that, ''. . . even where an SRO cannot demonstrate, or does not assert, that significant competitive forces constrain the fee at issue, a cost-based discussion may be an alternative basis upon which to show consistency with the Exchange Act.'' [31] In its Guidance, the Commission Staff further states that, ''[i]f an SRO seeks to support its claims that a proposed fee is fair and reasonable because it will permit recovery of the SRO's costs, or will not result in excessive pricing or supracompetitive profit, specific information, including quantitative information, should be provided to support that argument.'' [32] The Exchange does not assert that the Proposed Access Fees are constrained by competitive forces. Rather, the Exchange asserts that the Proposed Access Fees are reasonable because they will permit recovery of the Exchange's costs in providing access services to supply additional Limited Service MEI Ports and will not result in the Exchange generating a supra-competitive profit.

The Guidance defines ''supra-competitive profit'' as ''profits that exceed the profits that can be obtained in a competitive market.'' [33] The Commission Staff further states in the Guidance that ''the SRO should provide an analysis of the SRO's baseline revenues, costs, and profitability (before the proposed fee change) and the SRO's

[21] *See* NYSE American Options Fee Schedule, Section V.A., Port Fees.

[22] *See* NYSE Arca Options Fee Schedule, Port Fees.

[23] *See* Nasdaq Stock Market, Nasdaq Options 7 Pricing Schedule, Section 3, Nasdaq Options Market—Ports and Other Services.

[24] 15 U.S.C. 78f(b).

[25] 15 U.S.C. 78f(b)(4).

[26] 15 U.S.C. 78f(b)(5).

[27] *See* Securities Exchange Act Release No. 85459 (March 29, 2019), 84 FR 13363 (April 4, 2019) (SR–BOX–2018–24, SR–BOX–2018–37, and SR–BOX–2019–04) (Order Disapproving Proposed Rule Changes to Amend the Fee Schedule on the BOX Market LLC Options Facility to Establish BOX Connectivity Fees for Participants and Non-Participants Who Connect to the BOX Network).

[28] *See* Staff Guidance on SRO Rule Filings Relating to Fees (May 21, 2019), at *https://www.sec.gov/tm/staff-guidance-sro-rule-filings-fees* (the ''Guidance'').

[29] *See* Securities Exchange Act Release Nos. 90981 (January 25, 2021), 86 FR 7582 (January 29, 2021) (SR–PEARL–2021–01) (proposal to increase connectivity fees); 91460 (April 2, 2021), 86 FR 18349 (SR–EMERALD–2021–11) (proposal to adopt port fees, increase connectivity fees, and increase additional limited service ports); 91033 (February 1, 2021), 86 FR 8455 (February 5, 2021) (SR–EMERALD–2021–03) (proposal to adopt trading permit fees).

[30] *See* Guidance, *supra* note 28.

[31] *Id.*

[32] *Id.*

[33] *Id.*

expected revenues, costs, and profitability (following the proposed fee change) for the product or service in question.'' [34] The Exchange provides this analysis below.

Based on this analysis, the Exchange believes the Proposed Access Fees are reasonable and do not result in a ''supra-competitive'' [35] profit. The Exchange believes that it is important to demonstrate that the Proposed Access Fees are based on its costs and reasonable business needs. The Exchange believes the Proposed Access Fees will allow the Exchange to offset expenses the Exchange has and will incur, and that the Exchange provides sufficient transparency (described below) into the costs and revenue underlying the Proposed Access Fees. Accordingly, the Exchange provides an analysis of its revenues, costs, and profitability associated with the Proposed Access Fees. This analysis includes information regarding its methodology for determining the costs and revenues associated with the Proposed Access Fees. As a result of this analysis, the Exchange believes the Proposed Access Fees are fair and reasonable as a form of cost recovery plus present the possibility of a reasonable return for the Exchange's aggregate costs of offering additional Limited Service MEI Port access to the Exchange.

The Proposed Access Fees are based on a cost-plus model. In determining the appropriate fees to charge, the Exchange considered its costs to provide port access, using what it believes to be a conservative methodology (*i.e.,* that strictly considers only those costs that are most clearly directly related to the provision and maintenance of additional Limited Service MEI Ports) to estimate such costs,[36] as well as the relative costs of providing and maintaining additional Limited Service MEI Ports, and set fees that are designed to cover its costs with a limited return in excess of such costs. However, as discussed more fully below, such fees may also result in the Exchange recouping less than all of its costs of providing and maintaining additional Limited Service MEI Ports because of the uncertainty of forecasting subscriber decision making with respect to firms' additional Limited Service MEI Port needs and the likely potential for increased costs to procure the third-party services described below.

To determine the Exchange's costs to provide access services associated with the Proposed Access Fees, the Exchange conducted an extensive cost review in which the Exchange analyzed nearly every expense item in the Exchange's general expense ledger to determine whether each such expense relates to the Proposed Access Fees, and, if such expense did so relate, what portion (or percentage) of such expense actually supports access services associated with the Proposed Access Fees.

The Exchange also provides detailed information regarding the Exchange's cost allocation methodology—namely, information that explains the Exchange's rationale for determining that it was reasonable to allocate certain expenses described in this filing towards the cost to the Exchange to provide the access services associated with the Proposed Access Fees. The Exchange conducted a thorough internal analysis to determine the portion (or percentage) of each expense to allocate to the support of access services associated with the Proposed Access Fees. This analysis [37] included discussions with each Exchange department head to determine the expenses that support access services associated with the Proposed Access Fees. This included numerous meetings between the Exchange's Chief Information Officer, Chief Financial Officer, Head of Strategic Planning and Operations, Chief Technology Officer, various members of the Legal Department, and other group leaders. The Exchange reviewed each individual expense to determine if such expense was related to the Proposed Access Fees. Once the expenses were identified, the Exchange department heads, with the assistance of our internal finance department, reviewed such expenses holistically on an Exchange-wide level to determine what portion of that expense supports providing access services for the Proposed Access Fees. The sum of all such portions of expenses represents the total cost to the Exchange to provide access services associated with the Proposed Access Fees. For the avoidance of doubt, no expense amount was allocated twice.

The internal cost analysis conducted by the Exchange is a proprietary process that is designed to make a fair and reasonable assessment of costs and resources allocated to support the provision of access services associated with the Proposed Access Fees. The Exchange acknowledges that this assessment can only capture a moment in time and that costs and resource allocations may change. That is why the Exchange has historically, and on an ongoing basis, periodically revisits its costs and resource allocations to ensure it is appropriately allocating resources to properly provide services to the Exchange's constituents. Any requirement that an exchange should conduct a periodic re-evaluation on a set timeline of its cost justification and amend its fees accordingly should be established by the Commission holistically, applied to all exchanges and not just pending fee proposals such as this filing. In order to be fairly applied, such a mandate should be applied to existing access fees as well.

In accordance with the Guidance, the Exchange has provided sufficient detail to support a finding that the proposed fees are consistent with the Exchange Act. The proposal includes a detailed description of the Exchange's costs and how the Exchange determined to allocate those costs related to the proposed fees. In fact, the detail and analysis provided in this proposed rule change far exceed the level of disclosure provided in other exchange fee filings that have not been suspended by the Commission during its 60-day suspension period. A finding that this proposed rule change is inconsistent with the Exchange Act would run contrary to the Commission Staff's treatment of other recent exchange fee proposals that have not been suspended and remain in effect today.[38] For example, a proposed fee filing that closely resembles the Exchange's current filing was submitted in 2020 by the Cboe Exchange, Inc. (''Cboe'') and

[34] *Id.*

[35] *Id.*

[36] For example, the Exchange only included the costs associated with providing and supporting additional Limited Service MEI Port access and excluded from its cost calculations any cost not directly associated with providing and maintaining such additional Limited Service MEI Port access. Thus, the Exchange notes that this methodology underestimates the total costs of providing and maintaining additional Limited Service MEI Port access.

[37] A description of the Exchange's methodology for determining the portion (or percentage) of each expense to allocate to the Proposed Access Fees is being provide in response to comments from SIG and SIFMA. *See* SIG Letter 3 *and* SIFMA Letter, *supra* note 11.

[38] *See, e.g.,* Securities Exchange Act Release Nos. 91339 (March 17, 2021), 86 FR 15524 (March 23, 2021) (SR–CboeBZX–2021–020) (increasing fees for a market data product while not providing a cost based justification for the increase); 93293 (October 21, 2021), 86 FR 57716 (October 18, 2021) (SR–PHLX–2021–058) (increasing fees for historical market data while not providing a cost based justification for the increase); 92970 (September 14, 2021), 86 FR 52261 (September 20, 2021) (SR–CboeBZX–2021–047) (adopting fees for a market data related product while not providing a cost based justification for the fees); and 89826 (September 10, 2021), 85 FR 57900 (September 16, 2021) (SR–CBOE–2020–086) (increasing connectivity fees without including a cost based justification).

increased fees for Cboe's 10Gb connections.[39] This filing was submitted on September 2, 2020, nearly 15 months after the Staff's Guidance was issued. In that filing, the Cboe stated that the ''proposed changes were not designed with the objective to generate an overall increase in access fee revenue.'' [40] This filing provided no cost based data to support its assertion that the proposal was intended to be revenue neutral. Among other things, Cboe did not provide a description of the costs underlying its provision of 10Gb connections to show that this particular fee did not generate a supra-competitive profit or describe how any potential profit may be offset by increased costs associated with another fee included in its proposal. This filing, nonetheless, was not suspended by the Commission and remains in effect today.

The Exchange believes exchanges, like all businesses, should be provided flexibility when allocating costs and resources they deem necessary to operate their business, including providing market data and access services. The Exchange notes that costs and resource allocations may vary from business to business and, likewise, costs and resource allocations may differ from exchange to exchange when it comes to providing market data and access services. It is a business decision that must be evaluated by each exchange as to how to allocate internal resources and what costs to incur internally or via third parties that it may deem necessary to support its business and its provision of market data and access services to market participants. An exchange's costs may also vary based on fees charged by third parties and periodic increases to those fees that may be outside of the control of an exchange.

To determine the Exchange's projected revenue associated with the Proposed Access Fees, the Exchange analyzed the number of Market Makers currently utilizing additional Limited Service MEI Ports and used a recent monthly billing cycle representative of 2021 monthly revenue. The Exchange also provided its baseline by analyzing July 2021, the monthly billing cycle prior to the Proposed Access Fees going into effect, and compared it to its expenses for that month.[41] As discussed below, the Exchange does not believe it is appropriate to factor into its analysis future revenue growth or decline into its projections for purposes of these calculations, given the uncertainty of such projections due to the continually changing access needs of market participants and potential increase in internal and third party expenses. The Exchange is presenting its revenue and expense associated with the Proposed Access Fees in this filing in a manner that is consistent with how the Exchange presents its revenue and expense in its Audited Unconsolidated Financial Statements. The Exchange's most recent Audited Unconsolidated Financial Statement is for 2020. However, since the revenue and expense associated with the Proposed Access Fees were not in place in 2020 or for the first seven months of 2021, the Exchange believes its 2020 Audited Unconsolidated Financial Statement is not representative of its current total annualized revenue and costs associated with the Proposed Access Fees. Accordingly, the Exchange believes it is more appropriate to analyze the Proposed Access Fees utilizing its 2021 revenue and costs, as described herein, which utilize the same presentation methodology as set forth in the Exchange's previously-issued Audited Unconsolidated Financial Statements. Based on this analysis, the Exchange believes that the Proposed Access Fees are reasonable because they will allow the Exchange to recover its costs associated with providing access services related to the Proposed Access Fees and not result in excessive pricing or supra-competitive profit.

As outlined in more detail below, the Exchange projects that the final annualized expense for 2021 to provide additional Limited Service MEI Ports to be approximately $1,320,000 per annum or an average of $110,000 per month. The Exchange implemented the Proposed Access Fees on August 1, 2021 in the First Proposed Rule Change. For July 2021, prior to the Proposed Access Fees, the Exchange Members and non-Members purchased a total of 1,248 additional Limited Service MEI Ports for which the Exchange charged approximately $124,800. This resulted in a gain of $14,800 for that month (a profit margin of approximately 12%). For the month of November 2021, which includes the tiered rates for additional Limited Service MEI Ports for the Proposed Access Fees, Exchange Members and non-Members increased the number of additional Limited Service MEI Ports they purchased resulting in a total of 1,672 additional Limited Service MEI Ports, for which the Exchange charged approximately $248,950 for that month. This resulted in a profit of $138,950 for that month (a profit margin of approximately 56%). The Exchange cautions that this profit margin is likely to fluctuate from month to month based on the uncertainty of predicting how many ports may be purchased from month to month as Members and non-Members are able to add and drop ports at any time based on their own business decisions. This profit margin may also decrease due to the significant inflationary pressure on capital items that the Exchange needs to purchase to maintain the Exchange's technology and systems.[42] The Exchange has been subject to price increases upwards of 30% during the past year on network equipment due to supply chain shortages. This, in turn, results in higher overall costs for ongoing system maintenance, but also to purchase the items necessary to ensure ongoing system resiliency, performance, and determinism. These costs are expected to continue to go up as the U.S. economy continues to struggle with supply chain and inflation related issues.

Further, the Exchange chose to provide additional Limited Service MEI Ports at a discounted price to attract order flow and encourage market participants to experience the determinism and resiliency of the Exchange's trading systems. This resulted in the Exchange forgoing revenue it could have generated from assessing higher fees. The Exchange could have sought to charge higher fees at the outset, but that could have served to discourage participation on the Exchange. Instead, the Exchange chose to provide a low cost exchange alternative to the options industry, which resulted in lower initial revenues. The Exchange now proposes to amend its fee structure to enable it to continue to maintain and improve its overall market and systems while also providing a highly reliable and deterministic trading system to the marketplace.

As mentioned above, the Exchange projects that its annualized expense for 2021 to provide additional Limited Service MEI Ports to be approximately $1,320,000 per annum or an average of

[39] *See* Securities Exchange Act Release No. 89826 (September 10, 2020), 85 FR 57900 (September 16, 2020) (SR–CBOE–2020–086) (increasing connectivity fees without including a cost based justification).

[40] *See id.* at 57909.

[41] *See supra* note 37.

[42] *See* ''Supply chain chaos is already hitting global growth. And it's about to get worse'', by Holly Ellyatt, CNBC, *available at https://www.cnbc.com/2021/10/18/supply-chain-chaos-is-hitting-global-growth-and-could-get-worse.html* (October 18, 2021); *and* ''There will be things that people can't get, at Christmas, White House warns'' by Jarrett Renshaw and Trevor Hunnicutt, Reuters, *available at https://www.reuters.com/world/us/americans-may-not-get-some-christmas-treats-white-house-officials-warn-2021-10-12/* (October 12, 2021).

$110,000 per month and that these costs are expected to increase not only due to anticipated significant inflationary pressure, but also periodic fee increases by third parties.[43] The Exchange notes that there are material costs associated with providing the infrastructure and headcount to fully-support access to the Exchange. The Exchange incurs technology expense related to establishing and maintaining Information Security services, enhanced network monitoring and customer reporting, as well as Regulation SCI mandated processes, associated with its network technology. While some of the expense is fixed, much of the expense is not fixed, and thus increases the cost to the Exchange to provide access services associated with the Proposed Access Fees. For example, new Members to the Exchange may require the purchase of additional hardware to support those Members as well as enhanced monitoring and reporting of customer performance that the Exchange and its affiliates provide. Further, as the total number Members increases, the Exchange and its affiliates may need to increase their data center footprint and consume more power, resulting in increased costs charged by their third-party data center provider. Accordingly, the cost to the Exchange and its affiliates to provide access to its Members is not fixed. The Exchange believes the Proposed Access Fees are a reasonable attempt to offset a portion of the costs to the Exchange associated with providing access to its network infrastructure.

The Exchange only has four primary sources of revenue and cost recovery mechanisms to fund all of its operations: Transaction fees, access fees (which includes the Proposed Access Fees), regulatory fees, and market data fees. Accordingly, the Exchange must cover all of its expenses from these four primary sources of revenue and cost recovery mechanisms. Until recently, the Exchange has operated at a cumulative net annual loss since it launched operations in 2008.[44] This is a result of providing a low cost alternative to attract order flow and encourage market participants to experience the high determinism and resiliency of the Exchange's trading Systems. To do so, the Exchange chose to waive the fees for some non-transaction related services or provide them at a very marginal cost, which was not profitable to the Exchange. This resulted in the Exchange forgoing revenue it could have generated from assessing higher fees.

The Exchange believes that the Proposed Access Fees are fair and reasonable because they will not result in excessive pricing or supra-competitive profit, when comparing the total annual expense that the Exchange projects to incur in connection with providing these access services versus the total annual revenue that the Exchange projects to collect in connection with services associated with the Proposed Access Fees. As mentioned above, for 2021,[45] the total annual expense for providing the access services associated with the Proposed Access Fees is projected to be approximately $1,320,000, or approximately $110,000 per month. This projected total annual expense is comprised of the following, all of which are directly related to the access services associated with the Proposed Access Fees: (1) Third-party expense, relating to fees paid by the Exchange to third-parties for certain products and services; and (2) internal expense, relating to the internal costs of the Exchange to provide the services associated with the Proposed Access Fees.[46] As noted above, the Exchange believes it is more appropriate to analyze the Proposed Access Fees utilizing its 2021 revenue and costs, which utilize the same presentation methodology as set forth in the Exchange's previously-issued Audited Unconsolidated Financial Statements.[47] The $1,320,000 projected total annual expense is directly related to the access services associated with the Proposed Access Fees, and not any other product or service offered by the Exchange. It does not include general costs of operating matching engines and other trading technology. No expense amount was allocated twice.

As discussed above, the Exchange conducted an extensive cost review in which the Exchange analyzed nearly every expense item in the Exchange's general expense ledger (this includes over 150 separate and distinct expense items) to determine whether each such expense relates to the access services associated with the Proposed Access Fees, and, if such expense did so relate, what portion (or percentage) of such expense actually supports those services, and thus bears a relationship that is, ''in nature and closeness,'' directly related to those services. In performing this calculation, the Exchange considered other services and to which the expense may be applied and how much of the expense is directly and or indirectly utilized in providing those other services. The sum of all such portions of expenses represents the total cost of the Exchange to provide access services associated with the Proposed Access Fees.

External Expense Allocations

For 2021, total third-party expense, relating to fees paid by the Exchange to third-parties for certain products and services for the Exchange to be able to provide the access services associated with the Proposed Access Fees, is projected to be $0.16 million. This includes, but is not limited to, a portion of the fees paid to: (1) Equinix, for data center services, for the primary, secondary, and disaster recovery locations of the Exchange's trading system infrastructure; (2) Zayo Group Holdings, Inc. (''Zayo'') for network services (fiber and bandwidth products and services) linking the Exchange's office locations in Princeton, New Jersey and Miami, Florida, to all data center locations; (3) SFTI,[48] which supports connectivity and feeds for the entire U.S. options industry; (4) various other services providers (including Thompson Reuters, NYSE, Nasdaq, and Internap), which provide content, connectivity services, and infrastructure services for critical components of options connectivity and network services; and

[43] For example, on October 20, 2021, ICE Data Services announced a 3.5% price increase effective January 1, 2022 for most services. The price increase by ICE Data Services includes their Secure Financial Transaction Infrastructure (''SFTI'') network, which is relied on by a majority of market participants, including the Exchange. *See* email from ICE Data Services to the Exchange, dated October 20, 2021. The Exchange further notes that on October 22, 2019, the Exchange was notified by ICE Data Services that it was raising its fees charged to the Exchange by approximately 11% for the SFTI network.

[44] The Exchange has incurred a cumulative loss of $175 million since its inception in 2008 to 2020, the last year for which the Exchange's Form 1 data is available. *See* Exchange's Form 1/A, Application for Registration or Exemption from Registration as a National Securities Exchange, filed July 28, 2021, *available at https://www.sec.gov/Archives/edgar/vprr/2100/21000460.pdf.*

[45] The Exchange has not yet finalized its 2021 year end results.

[46] The percentage allocations used in this proposed rule change may differ from past filings from the Exchange or its affiliates due to, among other things, changes in expenses charged by third-parties, adjustments to internal resource allocations, and different system architecture of the Exchange as compared to its affiliates.

[47] For example, the Exchange previously noted that all third-party expense described in its prior fee filing was contained in the information technology and communication costs line item under the section titled ''Operating Expenses Incurred Directly or Allocated From Parent,'' in the Exchange's 2019 Form 1 Amendment containing its financial statements for 2018. *See* Securities Exchange Act Release No. 87875 (December 31, 2019), 85 FR 770 (January 7, 2020) (SR–MIAX–2019–51). Accordingly, the third-party expense described in this filing is attributed to the same line item for the Exchange's 2021 Form 1 Amendment, which will be filed in 2022.

[48] *See supra* note 43.

(5) various other hardware and software providers (including Dell and Cisco, which support the production environment in which Members connect to the network to trade, receive market data, etc.). For clarity, only a portion of all fees paid to such third-parties is included in the third-party expense herein, and no expense amount is allocated twice. Accordingly, the Exchange does not allocate its entire information technology and communication costs to the access services associated with the Proposed Access Fees.

For clarity, the Exchange took a conservative approach in determining the expense and the percentage of that expense to be allocated to providing access services in connection with the Proposed Access Fees. Only a portion of all fees paid to such third-parties is included in the third-party expenses described herein, and no expense amount is allocated twice. Accordingly, the Exchange does not allocate its entire information technology and communication costs to the access services associated with the Proposed Access Fees. Further, the Exchange notes that, with respect to the expenses included herein, those expenses only cover the MIAX market; expenses associated with MIAX Pearl for its options and equities markets and MIAX Emerald, are accounted for separately and are not included within the scope of this filing. As noted above, the percentage allocations used in this proposed rule change may differ from past filings from the Exchange or its affiliates due to, among other things, changes in expenses charged by third-parties, adjustments to internal resource allocations, and different system architecture of the Exchange as compared to its affiliates. Further, as part its ongoing assessment of costs and expenses, the Exchange recently conducted a periodic thorough review of its expenses and resource allocations which, in turn, resulted in a revised percentage allocations in this filing.

The Exchange believes it is reasonable to allocate such third-party expense described above towards the total cost to the Exchange to provide the access services associated with the Proposed Access Fees. In particular, the Exchange believes it is reasonable to allocate the identified portion of the Equinix expense because Equinix operates the data centers (primary, secondary, and disaster recovery) that host the Exchange's network infrastructure. This includes, among other things, the necessary storage space, which continues to expand and increase in cost, power to operate the network infrastructure, and cooling apparatuses to ensure the Exchange's network infrastructure maintains stability. Without these services from Equinix, the Exchange would not be able to operate and support the network and provide the access services associated with the Proposed Access Fees to its Members and their customers. The Exchange did not allocate all of the Equinix expense toward the cost of providing the access services associated with the Proposed Access Fees, only that portion which the Exchange identified as being specifically mapped to providing the access services associated with the Proposed Access Fees. According to the Exchange's calculations, it allocated approximately 4.95% of the total applicable Equinix expense to providing the access services associated with the Proposed Access Fees. The Exchange believes this allocation is reasonable because it represents the Exchange's actual cost to provide the access services associated with the Proposed Access Fees, and not any other service, as supported by its cost review.[49]

The Exchange believes it is reasonable to allocate the identified portion of the Zayo expense because Zayo provides the internet, fiber and bandwidth connections with respect to the network, linking the Exchange with its affiliates, MIAX Pearl and MIAX Emerald, as well as the data center and disaster recovery locations. As such, all of the trade data, including the billions of messages each day per exchange, flow through Zayo's infrastructure over the Exchange's network. Without these services from Zayo, the Exchange would not be able to operate and support the network and provide the access services associated with the Proposed Access Fees. The Exchange did not allocate all of the Zayo expense toward the cost of providing the access services associated with the Proposed Access Fees, only the portion which the Exchange identified as being specifically mapped to providing the Proposed Access Fees. According to the Exchange's calculations, it allocated approximately 2.64% of the total applicable Zayo expense to providing the access services associated with the Proposed Access Fees. The Exchange believes this allocation is reasonable because it represents the Exchange's actual cost to provide the access services associated with the Proposed Access Fees, and not any other service, as supported by its cost review.[50]

The Exchange believes it is reasonable to allocate the identified portions of the SFTI expense and various other service providers' (including Thompson Reuters, NYSE, Nasdaq, and Internap) expense because those entities provide connectivity and feeds for the entire U.S. options industry, as well as the content, connectivity services, and infrastructure services for critical components of the network. Without these services from SFTI and various other service providers, the Exchange would not be able to operate and support the network and provide access to its Members and their customers. The Exchange did not allocate all of the SFTI and other service providers' expense toward the cost of providing the access services associated with the Proposed Access Fees, only the portions which the Exchange identified as being specifically mapped to providing the access services associated with the Proposed Access Fees. According to the Exchange's calculations, it allocated approximately 4.95% of the total applicable SFTI and other service providers' expense to providing the access services associated with the Proposed Access Fees. The Exchange believes this allocation is reasonable because it represents the Exchange's actual cost to provide the access services associated with the Proposed Access Fees.[51]

The Exchange believes it is reasonable to allocate the identified portion of the other hardware and software provider expense because this includes costs for dedicated hardware licenses for switches and servers, as well as dedicated software licenses for security monitoring and reporting across the network. Without this hardware and software, the Exchange would not be able to operate and support the network and provide access to its Members and their customers. The Exchange did not allocate all of the hardware and software provider expense toward the cost of providing the access services associated with the Proposed Access Fees, only the portions which the Exchange identified as being specifically mapped to providing the access services associated with the Proposed Access Fees. According to the Exchange's calculations, it allocated approximately

[49] As noted above, the percentage allocations used in this proposed rule change may differ from past filings from the Exchange or its affiliates due to, among other things, changes in expenses charged by third-parties, adjustments to internal resource allocations, and different system architecture of the Exchange as compared to its affiliates. Again, as part its ongoing assessment of costs and expenses, the Exchange recently conducted a periodic thorough review of its expenses and resource allocations which, in turn, resulted in a revised percentage allocations in this filing.

[50] *Id.*

[51] *Id.*

4.95% of the total applicable hardware and software provider expense to providing the access services associated with the Proposed Access Fees. The Exchange believes this allocation is reasonable because it represents the Exchange's actual cost to provide the access services associated with the Proposed Access Fees.[52]

Internal Expense Allocations

For 2021, total projected internal expense, relating to the Exchange providing the access services associated with the Proposed Access Fees, is projected to be $1.16 million. This includes, but is not limited to, costs associated with: (1) Employee compensation and benefits for full-time employees that support the access services associated with the Proposed Access Fees, including staff in network operations, trading operations, development, system operations, and business that support those employees and functions (including an increase as a result of the higher determinism project); (2) depreciation and amortization of hardware and software used to provide the access services associated with the Proposed Access Fees, including equipment, servers, cabling, purchased software and internally developed software used in the production environment to support the network for trading; and (3) occupancy costs for leased office space for staff that provide the access services associated with the Proposed Access Fees. The breakdown of these costs is more fully-described below.

For clarity, and as stated above, the Exchange took a conservative approach in determining the expense and the percentage of that expense to be allocated to providing access services in connection with the Proposed Access Fees. Only a portion of all such internal expenses are included in the internal expense herein, and no expense amount is allocated twice. Accordingly, the Exchange does not allocate its entire costs contained in those items to the access services associated with the Proposed Access Fees. This may result in the Exchange under allocating an expense to the provision of access services in connection with the Proposed Access Fees and such expenses may actually be higher or increase above what the Exchange utilizes within this proposal. Further, as part its ongoing assessment of costs and expenses (described above), the Exchange recently conducted a periodic thorough review of its expenses and resource allocations which, in turn, resulted in a revised percentage allocations in this filing.

The Exchange believes it is reasonable to allocate such internal expenses described above towards the total cost to the Exchange to provide the access services associated with the Proposed Access Fees. In particular, the Exchange's employee compensation and benefits expense relating to providing the access services associated with the Proposed Access Fees is projected to be approximately $0.91 million, which is only a portion of the $12.6 million total projected expense for employee compensation and benefits. The Exchange believes it is reasonable to allocate the identified portion of such expense because this includes the time spent by employees of several departments, including Technology, Back Office, Systems Operations, Networking, Business Strategy Development (who create the business requirement documents that the Technology staff use to develop network features and enhancements), and Trade Operations. As part of the extensive cost review conducted by the Exchange, the Exchange reviewed the amount of time spent by each employee on matters relating to the provision of access services associated with the Proposed Access Fees. Without these employees, the Exchange would not be able to provide the access services associated with the Proposed Access Fees to its Members and their customers. The Exchange did not allocate all of the employee compensation and benefits expense toward the cost of the access services associated with the Proposed Access Fees, only the portion which the Exchange identified as being specifically mapped to providing the access services associated with the Proposed Access Fees. According to the Exchange's calculations, it allocated approximately 7.24% of the total applicable employee compensation and benefits expense to providing the access services associated with the Proposed Access Fees. The Exchange believes this allocation is reasonable because it represents the Exchange's actual cost to provide the access services associated with the Proposed Access Fees, and not any other service, as supported by its cost review.[53]

The Exchange's depreciation and amortization expense relating to providing the services associated with the Proposed Access Fees is projected to be $0.22 million, which is only a portion of the $4.8 million total projected expense for depreciation and amortization. The Exchange believes it is reasonable to allocate the identified portion of such expense because such expense includes the actual cost of the computer equipment, such as dedicated servers, computers, laptops, monitors, information security appliances and storage, and network switching infrastructure equipment, including switches and taps that were purchased to operate and support the network and provide the access services associated with the Proposed Access Fees. Without this equipment, the Exchange would not be able to operate the network and provide the access services associated with the Proposed Access Fees to its Members and their customers. The Exchange did not allocate all of the depreciation and amortization expense toward the cost of providing the access services associated with the Proposed Access Fees, only the portion which the Exchange identified as being specifically mapped to providing the access services associated with the Proposed Access Fees. According to the Exchange's calculations, it allocated approximately 4.60% of the total applicable depreciation and amortization expense to providing the access services associated with the Proposed Access Fees, as these access services would not be possible without relying on such. The Exchange believes this allocation is reasonable because it represents the Exchange's actual cost to provide the access services associated with the Proposed Access Fees, and not any other service, as supported by its cost review.[54]

The Exchange's occupancy expense relating to providing the services associated with the Proposed Access Fees is projected to be $0.03 million, which is only a portion of the $0.60 million total projected expense for occupancy. The Exchange believes it is reasonable to allocate the identified portion of such expense because such expense represents the portion of the Exchange's cost to rent and maintain a physical location for the Exchange's staff who operate and support the network, including providing the access services associated with the Proposed Access Fees. This amount consists primarily of rent for the Exchange's Princeton, NJ office, as well as various related costs, such as physical security, property management fees, property taxes, and utilities. The Exchange operates its Network Operations Center (''NOC'') and Security Operations Center (''SOC'') from its Princeton, New Jersey office location. A centralized office space is required to house the staff that operates and supports the

[52] *Id.*

[53] *Id.*

[54] *Id.*

network. The Exchange currently has approximately 200 employees. Approximately two-thirds of the Exchange's staff are in the Technology department, and the majority of those staff have some role in the operation and performance of the access services associated with the Proposed Access Fees. Accordingly, the Exchange believes it is reasonable to allocate the identified portion of its occupancy expense because such amount represents the Exchange's actual cost to house the equipment and personnel who operate and support the Exchange's network infrastructure and the access services associated with the Proposed Access Fees. The Exchange did not allocate all of the occupancy expense toward the cost of providing the access services associated with the Proposed Access Fees, only the portion which the Exchange identified as being specifically mapped to operating and supporting the network. According to the Exchange's calculations, it allocated approximately 4.69% of the total applicable occupancy expense to providing the access services associated with the Proposed Access Fees. The Exchange believes this allocation is reasonable because it represents the Exchange's cost to provide the access services associated with the Proposed Access Fees, and not any other service, as supported by its cost review.[55]

The Exchange notes that a material portion of its total overall expense is allocated to the provision of access services (including connectivity, ports, and trading permits). The Exchange believes this is reasonable and in line, as the Exchange operates a technology-based business that differentiates itself from its competitors based on its more deterministic and resilient trading systems that rely on access to a high performance network, resulting in significant technology expense. Over two-thirds of Exchange staff are technology-related employees. The majority of the Exchange's expense is technology-based. As described above, the Exchange has only four primary sources of fees to recover their costs; thus, the Exchange believes it is reasonable to allocate a material portion of its total overall expense towards access fees.

Based on the above, the Exchange believes that its provision of access services associated with the Proposed Access Fees will not result in excessive pricing or supra-competitive profit. As discussed above, the Exchange projects that its annualized expense for 2021 to provide the access services associated with the Proposed Access Fees is projected to be approximately $1,320,000, or approximately $110,000 per month on average. The Exchange implemented the Proposed Access Fees on August 1, 2021 in the First Proposed Rule Change. For July 2021, prior to the Proposed Access Fees, the Exchange Members and non-Members purchased a total of 1,248 additional Limited Service MEI Ports, for which the Exchange charged approximately $124,800. This resulted in a gain of $14,800 for that month (a profit margin of approximately 12%). For the month of November 2021, which includes the tiered rates for additional Limited Service MEI Ports for the Proposed Access Fees, Exchange Members and non-Members increased the number of additional Limited Service MEI Ports they purchased resulting in a total of 1,672 additional Limited Service MEI Ports, for which the Exchange charged approximately $248,950 for that month. This resulted in a profit of $138,950 for that month (a profit margin of approximately 56%). The Exchange believes this profit margin will allow it to begin to recoup its expenses and continue to invest in its technology infrastructure. Therefore, the Exchange also believes that this proposed profit margin increase is reasonable because it represents a reasonable rate of return.

Again, the Exchange cautions that this profit margin may fluctuate from month to month based in the uncertainty of predicting how many ports may be purchased from month to month as Members and non-Members are free to add and drop ports at any time based on their own business decisions. Notwithstanding that the revenue (and profit margin) may vary from month to month due to changes in ports and to changes to the Exchange's expenses, the number of ports has not materially changed over the previous months. Consequently, the Exchange believes that the months it has used as a baseline to perform its assessment are representative of reasonably anticipated costs and expenses. This profit margin may also decrease due to the significant inflationary pressure on capital items that it needs to purchase to maintain the Exchange's technology and systems.[56] Accordingly, the Exchange believes its total projected revenue for the providing the access services associated with the Proposed Access Fees will not result in excessive pricing or supra-competitive profit.

The Exchange believes that conducting the above analysis on a per month basis is reasonable as the revenue generated from access services subject to the proposed fee generally remains static from month to month. The Exchange also conducted the above analysis on a per month basis to comply with the Commission Staff's Guidance, which requires a baseline analysis to assist in determining whether the proposal generates a supra-competitive profit. This monthly analysis was also provided in response to comment received on prior submissions of this proposed rule change.

The Exchange reiterates that it only has four primary sources of revenue and cost recovery mechanisms: Transaction fees, access fees (which includes the Proposed Access Fees), regulatory fees, and market data fees. Accordingly, the Exchange must cover all of its expenses from these four primary sources of revenue and cost recovery mechanisms. As a result, each of these fees cannot be ''flat'' and cover only the expenses directly related to the fee that is charged. The above revenue and associated profit margin therefore are not solely intended to cover the costs associated with providing access services subject to the Proposed Access Fees.

The Exchange believes it is reasonable, equitable and not unfairly discriminatory to allocate the respective percentages of each expense category described above towards the total cost to the Exchange of operating and supporting the network, including providing the access services associated with the Proposed Access Fees because the Exchange performed a line-by-line item analysis of nearly every expense of the Exchange, and has determined the expenses that directly relate to providing access to the Exchange. Further, the Exchange notes that, without the specific third-party and internal expense items listed above, the Exchange would not be able to provide the access services associated with the Proposed Access Fees to its Members and their customers. Each of these expense items, including physical hardware, software, employee compensation and benefits, occupancy costs, and the depreciation and amortization of equipment, have been identified through a line-by-line item analysis to be integral to providing access services. The Proposed Access Fees are intended to recover the costs of providing access to the Exchange's System. Accordingly, the Exchange believes that the Proposed Access Fees are fair and reasonable because they do not result in excessive pricing or supra-competitive profit, when comparing the actual costs to the Exchange versus the

[55] *Id.*

[56] *See supra* note 42.

projected annual revenue from the Proposed Access Fees.

The Proposed Tiered-Pricing Structure Is Not Unfairly Discriminatory and Provides for the Equitable Allocation of Fees, Dues, and Other Charges

The Exchange believes the proposed tiered-pricing structure is reasonable, fair, equitable, and not unfairly discriminatory because it will apply to all Members and non-Members in the same manner based on the amount of additional Limited Service MEI Ports they require based on their own business decisions and usage of Exchange resources. All similarly situated Members and non-Members would be subject to the same fees. The fees do not depend on any distinction between Members and non-Members because they are solely determined by the individual Members' or non-Members' business needs and its impact on Exchange resources.

The proposed tiered-pricing structure is not unfairly discriminatory and provides for the equitable allocation of fees, dues, and other charges because it is designed to encourage Members and non-Members to be more efficient and economical when determining how to connect to the Exchange and the amount of the fees are based on the number of ports a Market Maker utilizes. Charging an incrementally higher fee to a Market Maker that utilizes numerous ports is directly related to the increased costs the Exchange incurs in providing and maintaining those additional ports. The proposed tiered pricing structure should also enable the Exchange to better monitor and provide access to the Exchange's network to ensure sufficient capacity and headroom in the System while still providing the first and second additional Limited Service MEI Ports for each matching engine free of charge.

To achieve a consistent, premium network performance, the Exchange must build out and continue to maintain a network that has the capacity to handle the message rate requirements of not only firms that consume minimal Exchange access resources, but also those firms that most heavily consume Exchange access resources, network consumers, and purchasers of Limited Service MEI Ports. Limited Service MEI Ports are not an unlimited resource as the Exchange needs to purchase additional equipment to satisfy requests for additional ports. The Exchange also needs to provide personnel to set up new ports, service requests related to adding new and/or deleting existing ports, respond to performance queries, and to maintain those ports on behalf of Members and non-Members. Also, those firms that utilize additional Limited Service MEI Ports typically generate a disproportionate amount of messages and order traffic, usually billions per day across the Exchange. These billions of messages per day consume the Exchange's resources and significantly contribute to the overall network access expense for storage and network transport capabilities. The Exchange also has to purchase additional storage capacity on an ongoing basis to ensure it has sufficient capacity to store these messages as part of it surveillance program and to satisfy its record keeping requirements under the Exchange Act.[57] Thus, as the number of ports an entity has increases, certain other costs incurred by the Exchange that are correlated to, though not directly affected by, port costs (*e.g.,* storage costs, surveillance costs, service expenses) also increase.

The Exchange sought to design the proposed tiered-pricing structure to set the amount of the fee to relate to the number of ports a firm purchases. The Exchange notes that Limited Service MEI Ports are primarily utilized by firms that engage in advanced trading strategies and typically request multiple Limited Service MEI Ports, beyond the two per matching engine that are currently provided free of charge. Accordingly, the firms engaged in advanced trading strategies generate higher costs by utilizing more of the Exchange's resources. Those firms purchase higher amounts of Limited Service MEI Ports tend to have specific business oriented market making and trading strategies, as opposed to firms engaging solely in order routing as part of their best-execution obligations.

The use of such additional Limited Service MEI Ports is a voluntary business decision of each Market Maker. Additional Limited Service MEI Ports are primarily used by Market Makers seeking to remove liquidity and, for competitive reasons, a Market Maker may choose to utilize numerous ports in an attempt to access the market quicker by using one port that may have less latency. The more ports purchased by a Market Maker likely results in greater expenditure of Exchange resources and increased cost to the Exchange. With this in mind, the Exchange will continue to provide the first and second additional Limited Service MEI Ports free of charge. The Exchange notes that firms that primarily route orders seeking best-execution generally do not utilize additional Limited Service MEI Ports. Those firms also generally send less orders and messages over those connections, resulting in less strain on Exchange resources.

On a similar note, the Exchange proposes to increase the fee for those firms that purchase more ports resulting in greater expenditure of Exchange resources and increased cost to the Exchange. The Exchange notes that these firms that purchase numerous additional Limited Service MEI Ports essentially do so for competitive reasons amongst themselves and choose to utilize numerous ports based on their business needs and desire to attempt to access the market quicker by using the connection with the least amount of latency. These firms are generally engaged in sending liquidity removing orders to the Exchange and seek to add more ports so they can access resting liquidity ahead of their competitors. For instance, a Member may have just sent numerous messages and/or orders over one or more of their additional Limited Service MEI Ports that are in queue to be processed. That same Member then seeks to enter an order to remove liquidity from the Exchange's Book. That Member may choose to send that order over one or more of their other additional Limited Service MEI Ports with less message and/or order traffic to ensure that their liquidity taking order accesses the Exchange quicker because that connection's queue is shorter. These firms also tend to frequently add and drop ports mid-month to determine which ports have the least latency, which results in increased costs to the Exchange to constantly make changes in the data center.

The firms that engage in the above-described liquidity removing and advanced trading strategies typically require multiple ports and, therefore, generate higher costs by utilizing more of the Exchange's resources. Those firms may also conduct other latency measurements over their ports and drop and simultaneously add ports mid-month based on their own assessment of their performance. This results in Exchange staff processing such requests, potentially purchasing additional equipment, and performing the necessary network engineering to replace those ports in the data center. Therefore, the Exchange believes it is equitable for these firms to experience increased port costs based on their disproportionate pull on Exchange resources to provide the additional port access.

In addition, the proposed tiered-pricing structure is equitable because it

[57] 17 CFR 240.17a–1 (recordkeeping rule for national securities exchanges, national securities associations, registered clearing agencies and the Municipal Securities Rulemaking Board).

is designed to encourage Members and non-Members to be more efficient and economical when determining how to connect to the Exchange. Section 6(b)(5) of the Exchange Act requires the Exchange to provide access on terms that are not unfairly discriminatory.[58] As stated above, additional Limited Service MEI Ports is not an unlimited resource and the Exchange's network is limited in the amount of ports it can provide. However, the Exchange must accommodate requests for additional Limited Service MEI Ports and access to the Exchange's System to ensure that the Exchange is able to provide access on non-discriminatory terms and ensure sufficient capacity and headroom in the System. To accommodate requests for additional Limited Service MEI Ports on top of current network capacity constraints, requires that the Exchange to purchase additional equipment to satisfy these requests. The Exchange also needs to provide personnel to set up new ports and to maintain those ports on behalf of Members and non-Members. The proposed tiered-pricing structure is equitable because it is designed to encourage Market Makers to be more efficient and economical in selecting the amount of Limited Service MEI Ports they request while balancing that against the Exchange's increased expenses when expanding its network to accommodate additional Limited Service MEI Ports.

The Proposed Fees Are Reasonable When Compared to the Fees of Other Options Exchanges With Similar Market Share

The Exchange does not have visibility into other equities exchanges' costs to provide port access or their fee markup over those costs, and therefore cannot use other exchange's port fees as a benchmark to determine a reasonable markup over the costs of providing port access. Nevertheless, the Exchange believes the other exchange's port fees are a useful example of alternative approaches to providing and charging for port access. To that end, the Exchange believes the proposed tiered-pricing structure for Limited Service MEI Ports is reasonable because the proposed highest tier is still less than fees charged for similar port access provided by other options exchanges with comparable market shares. For example, Amex (equity options market share of 5.05% as of November 26, 2021 for the month of November) [59] and Arca (equity options market share of 14.88% as of November 26, 2021 for the month of November) [60] both charge $450 per port for order/quote entry ports 1–40 and $150 per port for ports 41 and greater,[61] all on a per matching engine basis, with Amex and Arca having 17 match engines and 19 match engines, respectively.[62] Similarly, NASDAQ (equity options market share of 8.88% as of November 23, 2021 for the month of November) [63] charges $1,500 per port for SQF ports 1–5, $1,000 per SQF port for ports 6–20, and $500 per SQF port for ports 21 and greater,[64] all on a per matching engine basis, with NASDAQ having multiple matching engines.[65] The NASDAQ SQF Interface Specification provides that PHLX/NOM/BX Options trading infrastructures may consist of multiple matching engines with each matching engine trading only a range of option underlyings. Further, the SQF infrastructure is such that the firms connect to one or more servers residing directly on the matching engine infrastructure. Since there may be multiple matching engines, firms will need to connect to each engine's infrastructure in order to establish the ability to quote the symbols handled by that engine.[66]

In the each of the above cases, the Exchange's highest tier in the proposed tiered-pricing structure is similar to or significantly lower than that of competing options exchanges with similar market share. Despite proposing lower or similar fees to that of competing options exchanges with similar market share, the Exchange believes that it provides a premium network experience to its Members and non-Members via a highly deterministic System, enhanced network monitoring and customer reporting, and a superior network infrastructure than markets with higher market shares and more expensive port alternatives. Each of the port rates in place at competing options exchanges were filed with the Commission for immediate effectiveness and remain in place today.

B. Self-Regulatory Organization's Statement on Burden on Competition

The Exchange does not believe that the proposed rule change will impose any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act.

With respect to intra-market competition, the Exchange does not believe that the proposed rule change would place certain market participants at the Exchange at a relative disadvantage compared to other market participants or affect the ability of such market participants to compete. As stated above, the Exchange does not believe its proposed pricing will impose a barrier to entry to smaller participants and notes that the proposed pricing structure is associated with relative usage of the various market participants. Firms that are primarily order routers seeking best-execution do not utilize Limited Service MEI Ports on MIAX and therefore will not pay the fees associated with the tiered-pricing structure. Rather, the fees described in the proposed tiered-pricing structure will only be allocated to Market Making firms that engage in advanced trading strategies and typically request multiple Limited Service MEI Ports, beyond the two that are free. Accordingly, the firms engaged in a Market Making business generate higher costs by utilizing more of the Exchange's resources. Those Market Making firms that purchase higher amounts of additional Limited Service MEI Ports tend to have specific business oriented market making and trading strategies, as opposed to firms engaging solely in best-execution order routing business. Additionally, the use of such additional Limited Service MEI Ports is entirely voluntary.

The Exchange also does not believe that the proposed rule change will result in any burden on inter-market competition that is not necessary or appropriate in furtherance of the purposes of the Act. As discussed above, options market participants are not forced to access all options exchanges. The Exchange operates in a highly competitive environment, and as discussed above, its ability to price access and ports is constrained by competition among exchanges and third parties. There are other options markets of which market participants may access in order to trade options. There is also a possible range of alternative strategies, including routing to the exchange through another participant or market center or accessing the Exchange indirectly. For example, there are 15 other U.S. options exchanges, which the Exchange must consider in its pricing

[58] 15 U.S.C. 78f(b)(5).

[59] *See* ''The market at a glance,'' *available at https://www.miaxoptions.com/*(last visited November 26, 2021).

[60] *See id.*

[61] *See* NYSE American Options Fee Schedule, Section V.A., Port Fees; NYSE Arca Options Fee Schedule, Port Fees.

[62] *See* NYSE Technology FAQ and Best Practices: Options, Section 5.1 (How many matching engines are used by each exchange?) (September 2020) (providing a link to an Excel file detailing the number of matching engines per options exchange).

[63] *See supra* note 59.

[64] *See* NASDAQ Stock Market, NASDAQ Options 7 Pricing Schedule, Section 3, NASDAQ Options Market—Ports and Other Services.

[65] *See* NASDAQ Specialized Quote Interface (SQF) Specification, Version 6.4 (October 2017), Section 2, Architecture (the ''NASDAQ SQF Interface Specification'').

[66] *See id.*

discipline in order to compete for market participants. In this competitive environment, market participants are free to choose which competing exchange to use to satisfy their business needs. As a result, the Exchange believes this proposed rule change permits fair competition among national securities exchanges. Accordingly, the Exchange does not believe its proposed fee changes impose any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act.

Regrettably, the Exchange believes that the application of the Guidance to date has adversely affected inter-market competition by impeding the ability of smaller, low cost exchanges to adopt or increase fees for their market data and access services (including connectivity and port products and services). Since the adoption of the Guidance, and even more so recently, it has become harder, particularly for smaller, low cost exchanges, to adopt or increase fees to generate revenue necessary to invest in systems, provide innovative trading products and solutions, and improve competitive standing to the benefit of the affected exchanges' market participants. Although the Staff Guidance has served an important policy goal of improving disclosures and requiring exchanges to justify that their market data and access fee proposals are fair and reasonable, it has also negatively impacted exchanges, and particularly many smaller, low cost exchanges, that seek to adopt or increase fees despite providing enhanced disclosures and rationale to support their proposed fee changes.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others

As described above, the Exchange received one comment letter on the First Proposed Rule Change[67] and three comment letters on the Second Proposed Rule Change.[68] The Exchange responded to the comment letters in the Third Proposed Rule Change and repeats its response in is filing. No comment letters were received in response to the Third Proposed Rule Change.

SIG Letter 2

SIG Letter 2 argues that the Exchange, in withdrawing the First Proposed Rule Change and refiling the Second Proposed Rule Change, ''improperly circumvent[ed] the procedural protections embedded in Exchange Act Section 19(b)(3)(C), and subvert[ed] the balance of interests upheld therein.''[69] SIG's assertion that the Exchange's entire reason for withdrawing and refiling was to subvert the protections of the Exchange Act are entirely without merit. The Exchange withdrew the First Proposed Rule Change and replaced it with the Second Proposed Rule Change in good faith to provide additional justification and explanation for the proposed fee changes and did so in compliance with the Exchange Act. The same is true in this filing, where the Exchange withdrew the Second Proposed Rule Change and submitted this filing to provide additional justification and explanation for the proposed fee changes and directly responds to certain points raised in SIG Letters 1, 2, and 3, as well as the SIFMA Letter submitted on the First and Second Proposed Rule Changes.

As SIG well knows, exchanges are able withdraw and refile various proposals (including fee changes and other rule changes) with the Commission for a multitude of reasons, not the least of which is to address feedback and comments from market participants and Commission Staff. The Exchange is well within the bounds of the Act and the rules and regulations thereunder to withdraw a proposed rule change and replace it with a new proposed rule change in good faith and to enhance the filing to ensure it complies with the requirements of the Act.

SIG Letters 1 and 3

As an initial matter, SIG Letter 1 cites Rule 700(b)(3) of the Commission's Rules of Fair Practice which places ''the burden to demonstrate that a proposed rule change is consistent with the Act on the self-regulatory organization that proposed the rule change'' and states that a ''mere assertion that the proposed rule change is consistent with those requirements . . . is not sufficient.''[70] SIG Letter 1's assertion that the Exchange has not met this burden is without merit, especially considering the overwhelming amounts of revenue and cost information the Exchange included in the First and Second Proposed Rule Changes and this filing.

Until recently, the Exchange operated at a net annual loss since it launched operations in 2008.[71] As stated above, the Exchange believes that exchanges in setting fees of all types should meet very high standards of transparency to demonstrate why each new fee or fee increase meets the requirements of the Act that fees be reasonable, equitably allocated, not unfairly discriminatory, and not create an undue burden on competition among market participants. The Exchange believes this high standard is especially important when an exchange imposes various access fees for market participants to access an exchange's marketplace. The Exchange believes it has achieved this standard in this filing and in the First and Second Proposed Rule Changes. Similar justifications for the proposed fee change included in the First and Second Proposed Rule Changes, but also in this filing, were previously included in similar fee changes filed by the Exchange and its affiliates, MIAX Emerald and MIAX Pearl, and SIG did not submit a comment letter on those filings.[72] Those filings were not suspended by the Commission and continue to remain in effect. The justification included in each of the prior filings was the result of numerous withdrawals and re-filings of the proposals to address comments received from Commission Staff over many months. The Exchange and its affiliates have worked diligently with Commission Staff on ensuring the justification included in past fee filings fully support an assertion that those fee changes are consistent with the Act.[73]

[67] *See supra* note 8.

[68] *See supra* note 11.

[69] *See* SIG Letter 2, *supra* note 11, at page 1.

[70] 17 CFR 201.700(b)(3).

[71] *See supra* note 44.

[72] *See* Securities Exchange Act Release Nos. 91858 (May 12, 2021), 86 FR 26967 (May 18, 2021) (SR–PEARL–2021–23) (Notice of Filing and Immediate Effectiveness of a Proposed Rule Change to Amend the MIAX Pearl Fee Schedule to Remove the Cap on the Number of Additional Limited Service Ports Available to Market Makers); 91460 (April 2, 2021), 86 FR 18349 (April 8, 2021) (SR–EMERALD–2021–11) (Notice of Filing and Immediate Effectiveness of a Proposed Rule Change To Amend Its Fee Schedule To Adopt Port Fees, Increase Certain Network Connectivity Fees, and Increase the Number of Additional Limited Service MIAX Emerald Express Interface Ports Available to Market Makers); *and* 91857 (May 12, 2021), 86 FR 26973 (May 18, 2021) (SR–MIAX–2021–19) (Notice of Filing and Immediate Effectiveness of a Proposed Rule Change To Amend Its Fee Schedule To Remove the Cap on the Number of Additional Limited Service Ports Available to Market Makers).

[73] *See, e.g.,* Securities Exchange Act Release No. 90196 (October 15, 2020), 85 FR 67064 (October 21, 2020) (SR–EMERALD–2020–11) (Notice of Filing and Immediate Effectiveness of a Proposed Rule Change To Amend Its Fee Schedule To Adopt One-Time Membership Application Fees and Monthly Trading Permit Fees). *See* Securities Exchange Act Release Nos. 90601 (December 8, 2020), 85 FR 80864 (December 14, 2020) (SR–EMERALD–2020–18) (re-filing with more detail added in response to Commission Staff's feedback and after withdrawing SR–EMERALD–2020–11); *and* 91033 (February 1, 2021), 86 FR 8455 (February 5, 2021) (SR–EMERALD–2021–03) (re-filing with more detail added in response to Commission Staff's feedback and after withdrawing SR–EMERALD–2020–18). The Exchange initially filed a proposal to remove the cap on the number of additional Limited Service MEO Ports available to Members on April

The Exchange leveraged its past work with Commission Staff to ensure the justification provided herein and in the First and Second Proposed Rule Changes include the same level of detail (or more) as the prior fee changes that survived Commission scrutiny. The Exchange's detailed disclosures in fee filings have also been applauded by one industry group which noted, ''[the Exchange's] filings contain significantly greater information about who is impacted and how than other filings that have been permitted to take effect without suspension.'' [74] That same commenter also noted their ''worry that the Commission's process for reviewing and evaluating exchange filings may be inconsistently applied.'' [75]

Therefore, a finding by the Commission that the Exchange has not met its burden to show that the proposed fee change is consistent with the Act would be different than the Commission's treatment of similar past filings, would create further ambiguity regarding the standards exchange fee filings should satisfy, and is not warranted here.

In addition, the arguments in SIG Letter 1 do not support their claim that the Exchange has not met its burden to show the proposed rule change is consistent with the Act. Prior to, and after submitting the First Proposed Rule Change, the Exchange solicited feedback from its Members, including SIG. SIG relayed their concerns regarding the proposed change. The Exchange then sought to work with SIG to address their concerns and gain a better understanding of the access/connectivity/quoting infrastructure of other exchanges. In response, SIG provided no substantive suggestions on how to amend the First Proposed Rule Change to address their concerns and instead chose to submit three comment letters. One could argue that SIG is using the comment letter process not to raise legitimate regulatory concerns regarding the proposal, but to inhibit or delay proposed fee changes by the Exchange. With regards to the First and Second Proposed Rule Changes, the SIG Letters do not directly address the proposed fees or lay out specific arguments as to why the proposal is not consistent with Section 6(b)(4) of the Act. Rather, SIG simply describes the proposed fee change and flippantly states that its claims concerning the 10Gb ULL fee change proposals by the Exchange, and its affiliates, apply to these changes. Nonetheless, the Exchange submits the below response to the SIG Letter concerning the Initial Proposed Fee Change.

Furthermore, the Exchange has enhanced its cost and revenue analysis and data in this Third [sic] Proposed Rule Change to further justify that the Proposed Access Fees are reasonable in accordance with the Commission Staff's Guidance. Among other things, these enhancements include providing baseline information in the form of data from the month before the Proposed Access Fees became effective.

The Exchange now responds to SIG's remaining claims below. SIG Letter 3 first summarizes its arguments made in SIG Letters 1 and 2 and incorporates those arguments by reference. The Exchange responded to the arguments in SIG Letter 2 above. SIG Letter 3 incorporates the following arguments regarding additional Limited Service MEI Port fees from SIG Letter 1 (while excluding arguments that pertain solely to connectivity), which the Exchange will first respond to in turn, below:

> ''(1) the prospect that a member may withdraw from the Exchanges if a fee is too costly is not a basis for asserting that the fee is reasonable; (2) profit margin comparisons do not support the Exchanges' claims that they will not realize a supracompetitive profit . . . and comparisons to competing exchanges' overall operating profit margins are an inapt ''apples-to-oranges'' comparison . . . (7) the recoupment of investment for exchange infrastructure has no supporting nexus with the claim that the proposed fees are reasonable, equitably allocated, and not unfairly discriminatory . . . .'' [76]

General

First, the SIG Letter 1 states that additional Limited Service MEI Ports ''are critical to Exchange members to be competitive *and to provide essential protection from adverse market events*'' (*emphasis added*).[77] The Exchange notes that this statement is generally not true for additional Limited Service MEI Ports as those ports are completely voluntary and used primarily for entering liquidity removing orders and not risk protection activities like purging quotes resting on the MIAX Book. Additional Limited Service MEI Ports are essentially used for competitive reasons and Market Makers may choose to utilize one or two Limited Service MEI Ports that are provided for free, or purchase additional Limited Service MEI Ports based on their business needs and desire to attempt to access the market quicker by using one port that may have less latency. For instance, a Market Maker may have just sent numerous messages and/or orders over one of their additional Limited Service MEI Ports that are in queue to be processed. That same Market Maker then seeks to enter an order to remove liquidity from the Exchange's Book. That Market Maker may choose to send that order simultaneously over all of their Limited Service MEI Ports that they elected to purchase to ensure that their liquidity taking order accesses the Exchange as quickly as possible.

If the Exchanges Were To Attempt To Establish Unreasonable Pricing, Then No Market Participant Would Join or Connect to the Exchange, and Existing Market Participants Would Disconnect

SIG asserts that ''the prospect that a member may withdraw from the Exchanges if a fee is too costly is not a basis for asserting that the fee is reasonable.'' [78] SIG misinterprets the Exchange's argument here. The Exchange provided the examples of firms terminating access to certain markets due to fees to support its assertion that firms, including market makers, are not required to connect to all markets and may drop access if fees become too costly for their business models and alternative or substitute forms of access are available to those firms who choose to terminate access. The Commission Staff Guidance also provides that ''[a] statement that substitute products or services are available to market participants in the relevant market (*e.g.,* equities or options) can demonstrate competitive forces if supported by evidence that substitute products or services exist.'' [79] Nonetheless, the Third [sic] Proposed Rule Change no longer makes this assertion as a basis for the proposed fee change and, therefore, the Exchange

9, 2021. *See* SR–PEARL–2021–17. On April 22, 2021, the Exchange withdrew SR–PEARL–2021–17 and refiled that proposal (without increasing the actual fee amounts) to provide further clarification regarding the Exchange's revenues, costs, and profitability any time more Limited Service MEO Ports become available, in general, (including information regarding the Exchange's methodology for determining the costs and revenues for additional Limited Service MEO Ports). *See* SR–PEARL–2021–20. On May 3, 2021, the Exchange withdrew SR–PEARL–2021–20 and refiled that proposal to further clarify its cost methodology. *See* SR–PEARL–2021–22. On May 10, 2021, the Exchange withdrew SR–PEARL–2021–22 and refiled SR–PEARL–2021–23. *See* Securities Exchange Act Release No. 91858 (May 12, 2021), 86 FR 26967 (May 18, 2021) (SR–PEARL–2021–23).

[74] *See* HMA Letter, *supra* note 11.

[75] *Id.* (providing examples where non-transaction fee filings by other exchanges have been permitted to remain effective and not suspended by the Commission despite less disclosure and justification).

[76] *See* SIG Letter 3, *supra* note 11.

[77] *See* SIG Letter 1 at page 2, *supra* note 8.

[78] *Id.*

[79] *See* Guidance, *supra* note 28.

believes it is not necessary to respond to this portion of SIG Letters 1 and 3.

The Proposed Access Fees Will Not Result in Excessive Pricing or Supra-Competitive Profit

Next, SIG asserts that the Exchange's ''profit margin comparisons do not support the Exchanges' claims that they will not realize a supracompetitive profit,'' and ''comparisons to competing exchanges' overall operating profit margins are an inapt 'apples-to-oranges' comparison.'' [80]

The Exchange has provided ample data that the Proposed Access Fees would not result in excessive pricing or a supra-competitive profit. In this Third [sic] Proposed Rule Change, the Exchange no longer utilizes a comparison of its profit margin to that of other options exchanges as a basis that the Proposed Access Fees are reasonable. Rather, the Exchange has enhanced its cost and revenue analysis and data in this Third [sic] Proposed Rule Change to further justify that the Proposed Access Fees are reasonable in accordance with the Commission Staff's Guidance. Therefore, the Exchange believes it is no longer necessary to respond to this portion of SIG Letters 1 and 3.

Recoupment of Exchange Infrastructure Costs

Nowhere in this proposal or in the First or Second Proposed Rule Changes did the Exchange assert that it benefits competition to allow a new exchange entrant to recoup their infrastructure costs. Rather, the Exchange asserts above that its ''proposed fees are reasonable, equitably allocated and not unfairly discriminatory because the Exchange, and its affiliates, are still recouping the initial expenditures from building out their systems while the legacy exchanges have already paid for and built their systems.'' The Exchange no longer makes this assertion in this filing and, therefore, does not believe is it necessary to respond to SIG's assertion here.

The Proposed Tiered Pricing Structure Is Not Unfairly Discriminatory

SIG challenges the proposed fees by arguing that ''the Exchange[ ] provide[s] no support for [its] claim that [the] proposed tiered pricing structure is needed to encourage efficiency in connectivity usage and the Exchange[ ] provided no support for [the] claim that the tiered pricing structure allows them to better monitor connectivity usage, nor that this is an appropriate basis for the pricing structure in any event.'' The Exchange provided additional justification to support that the Proposed Access Fees are equitable and not unfairly discriminatory above in response to SIG's assertions.

SIFMA Letter

In sum, the SIFMA Letter asserts that the Exchange has failed to demonstrate that the Proposed Access Fees are reasonable for three reasons:

(i) ''The Exchanges' ''platform competition'' argument that competition for order flow constrains pricing for market data or other products and services exclusively offered by an exchange does not demonstrate that the fees are reasonable.''

(ii) ''. . . order flow competition alone between exchanges does not demonstrate that the fees for the products and services subject to the Proposal are reasonable.''

(iii) ''the Exchanges' argument that the products and services subject to the Proposals are optional does not reflect marketplace reality, nor does it demonstrate that the proposed fees are reasonable.''

The Exchange responds to each of SIFMA's challenges in turn below.

The Exchange Never Set Forth a ''Platform Competition'' Argument

The SIFMA Letter asserts that the Exchange's ''platform competition'' argument that competition for order flow constrains pricing for market data or other products and services exclusively offered by an exchange does not demonstrate that the fees are reasonable.'' The Exchange does not believe it is necessary to respond to this assertion because it has never set forth a ''platform competition'' [81] argument to justify the Proposed Access Fees in the First or Second Proposed Rule Changes nor does it do so in this filing.

The Exchange Is Not Arguing That Order Flow Competition Alone Demonstrates That the Proposed Fees Are Reasonable

The SIFMA Letter asserts that ''order flow competition alone between exchanges does not demonstrate that the fees for the products and services subject to the Proposal are reasonable.'' [82] The Exchange never directly asserted in the First or Second Proposed Rule Changes, nor does it do so in this filing, that order flow competition, alone, demonstrated that the Proposed Access Fees are reasonable and has removed any language that could imply this argument from this filing.

Other SIFMA Assertions

SIFMA also challenges or asserts: (i) Whether the Exchange has shown that the fees are equitable and non-discriminatory; (ii) that a tiered pricing structure will encourage market participants to be more economical with the usage; (iii) greater number of ports use greater Exchange resources; and (iv) that the Exchange has not provided extensive information regarding its cost data and how it determined it cost analysis. The Exchange believes that these assertions by SIFMA basically echo assertions made in SIG Letters 1 and 3 and that it provided a response to these assertions under its response to SIG above or in provided enhanced transparency and justification in this filing.

III. Suspension of the Proposed Rule Change

Pursuant to Section 19(b)(3)(C) of the Act,[83] at any time within 60 days of the date of filing of a proposed rule change pursuant to Section 19(b)(1) of the Act,[84] the Commission summarily may temporarily suspend the change in the rules of a self-regulatory organization (''SRO'') if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act. As discussed below, the Commission believes a temporary suspension of the proposed rule change is necessary and appropriate to allow for additional analysis of the proposed rule change's consistency with the Act and the rules thereunder.

As the Exchange further details above, the Exchange first filed a proposed rule change proposing fee changes as proposed herein on August 2, 2021. That proposal, SR–MIAX–2021–37, was published for comment in the **Federal Register** on August 19, 2021.[85] On September 28, 2021 the Exchange withdrew SR–MIAX–2021–37 and filed a proposed rule change proposing fee changes as proposed herein. That proposal, SR–MIAX–2021–43, was published for comment in the **Federal**

[80] *See supra* note 11.

[81] Pursuant to the Guidance, ''platform theory generally asserts that when a business offers facilities that bring together two or more distinct types of customers, it is the overall return of the platform, rather than the return of any particular fees charged to a type of customer, that should be used to assess the competitiveness of the platform's market.'' *See* Guidance, *supra* note 28.

[82] *See* SIFMA Letter, *supra* note 11.

[83] 15 U.S.C. 78s(b)(3)(C).

[84] 15 U.S.C. 78s(b)(1).

[85] *See* Securities Exchange Act Release No. 92661 (August 13, 2021), 86 FR 46737 (August 19, 2021) (SR–MIAX–2021–37). The Commission received one comment letter on that proposal. Comment on SR–MIAX–2021–37 can be found at: *https://www.sec.gov/comments/sr-miax-2021-37/srmiax202137.htm*.

Register on October 5, 2021.[86] The Commission received three comment letters from two separate commenters on SR–MIAX–2021–43.[87] On November 22, 2021, pursuant to Section 19(b)(3)(C) of the Act, the Commission: (1) Temporarily suspended the proposed rule change; and (2) instituted proceedings to determine whether to approve or disapprove the proposed rule change.[88] On December 1, 2021, the Exchange withdrew SR–MIAX–2021–43 and filed a proposed rule change proposing fee changes as proposed herein. That filing, SR–MIAX–2021–60,[89] was published for comment in the **Federal Register** on December 20, 2021.[90] On January 27, 2022, pursuant to Section 19(b)(3)(C) of the Act, the Commission: (1) Temporarily suspended the proposed rule change (SR–MIAX–2021–60); and (2) instituted proceedings to determine whether to approve or disapprove the proposal.[91] On February 1, 2022, the Exchange withdrew SR–MIAX–2021–60 and filed the instant filing, which is substantially similar.

When exchanges file their proposed rule changes with the Commission, including fee filings like the Exchange's present proposal, they are required to provide a statement supporting the proposal's basis under the Act and the rules and regulations thereunder applicable to the exchange.[92] The instructions to Form 19b–4, on which exchanges file their proposed rule changes, specify that such statement ''should be sufficiently detailed and specific to support a finding that the proposed rule change is consistent with [those] requirements.'' [93]

Among other things, exchange proposed rule changes are subject to Section 6 of the Act, including Sections 6(b)(4), (5), and (8), which requires the rules of an exchange to: (1) Provide for the equitable allocation of reasonable fees among members, issuers, and other persons using the exchange's facilities; [94] (2) perfect the mechanism of a free and open market and a national market system, protect investors and the public interest, and not permit unfair discrimination between customers, issuers, brokers, or dealers; [95] and (3) not impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act.[96]

In temporarily suspending the Exchange's fee change, the Commission intends to further consider whether the proposed additional Limited Service MEI Port fees are consistent with the statutory requirements applicable to a national securities exchange under the Act. In particular, the Commission will consider whether the proposed rule change satisfies the standards under the Act and the rules thereunder requiring, among other things, that an exchange's rules provide for the equitable allocation of reasonable fees among members, issuers, and other persons using its facilities; not be designed to permit unfair discrimination between customers, issuers, brokers, or dealers; and not impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act.[97]

Therefore, the Commission finds that it is appropriate in the public interest, for the protection of investors, and otherwise in furtherance of the purposes of the Act, to temporarily suspend the proposed rule change.[98]

IV. Proceedings To Determine Whether To Approve or Disapprove the Proposed Rule Change

The Commission is instituting proceedings pursuant to Sections 19(b)(3)(C) [99] and 19(b)(2)(B) [100] of the Act to determine whether the Exchange's proposed rule change should be approved or disapproved. Institution of such proceedings is appropriate at this time in view of the legal and policy issues raised by the proposed rule change. Institution of proceedings does not indicate that the Commission has reached any conclusions with respect to any of the issues involved. Rather, as described below, the Commission seeks and encourages interested persons to provide comments on the proposed rule change to inform the Commission's analysis of whether to approve or disapprove the proposed rule change.

Pursuant to Section 19(b)(2)(B) of the Act,[101] the Commission is providing notice of the grounds for possible disapproval under consideration. The Commission is instituting proceedings to allow for additional analysis of whether the Exchange has sufficiently demonstrated how the proposed rule change is consistent with Sections 6(b)(4),[102] 6(b)(5),[103] and 6(b)(8) [104] of the Act. Section 6(b)(4) of the Act requires that the rules of a national securities exchange provide for the equitable allocation of reasonable dues, fees, and other charges among its members and issuers and other persons using its facilities. Section 6(b)(5) of the Act requires that the rules of a national securities exchange be designed, among other things, to promote just and equitable principles of trade, to remove impediments to and perfect the mechanism of a free and open market and a national market system and, in general, to protect investors and the public interest, and not be designed to permit unfair discrimination between customers, issuers, brokers, or dealers. Section 6(b)(8) of the Act requires that the rules of a national securities exchange not impose any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act.

The Commission asks that commenters address the sufficiency of the Exchange's statements in support of the proposal, in addition to any other comments they may wish to submit about the proposed rule change. In particular, the Commission seeks comment on the following aspects of the proposal and asks commenters to submit data where appropriate to support their views:

1. *Cost Estimates and Allocation.* The Exchange states that it is not asserting that the Proposed Access Fees are constrained by

[86] *See* Securities Exchange Act Release No. 93185 (September 29, 2021), 86 FR 55093 (October 5, 2021) (SR–MIAX–2021–43).

[87] Comment on SR–MIAX–2021–43 can be found at: *https://www.sec.gov/comments/sr-miax-2021-43/srmiax202143.htm.*

[88] *See* Securities Exchange Act Release No. 93640 (November 22, 2021), 86 FR 67745 (November 29, 2021).

[89] *See* text accompanying *supra* note 14.

[90] *See* Securities Exchange Act Release No. 93771 (December 14, 2021), 86 FR 71940 (December 20, 2021).

[91] *See* Securities Exchange Act Release No. 94087 (January 27, 2022), 87 FR 5918 (February 2, 2022).

[92] *See* 17 CFR 240.19b–4 (Item 3 entitled ''Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change'').

[93] *See id.*

[94] 15 U.S.C. 78f(b)(4).

[95] 15 U.S.C. 78f(b)(5).

[96] 15 U.S.C. 78f(b)(8).

[97] *See* 15 U.S.C. 78f(b)(4), (5), and (8), respectively.

[98] For purposes of temporarily suspending the proposed rule change, the Commission has considered the proposed rule's impact on efficiency, competition, and capital formation. *See* 15 U.S.C. 78c(f).

[99] 15 U.S.C. 78s(b)(3)(C). Once the Commission temporarily suspends a proposed rule change, Section 19(b)(3)(C) of the Act requires that the Commission institute proceedings under Section 19(b)(2)(B) to determine whether a proposed rule change should be approved or disapproved.

[100] 15 U.S.C. 78s(b)(2)(B).

[101] 15 U.S.C. 78s(b)(2)(B). Section 19(b)(2)(B) of the Act also provides that proceedings to determine whether to disapprove a proposed rule change must be concluded within 180 days of the date of publication of notice of the filing of the proposed rule change. *See id.* The time for conclusion of the proceedings may be extended for up to 60 days if the Commission finds good cause for such extension and publishes its reasons for so finding, or if the exchange consents to the longer period. *See id.*

[102] 15 U.S.C. 78f(b)(4).

[103] 15 U.S.C. 78f(b)(5).

[104] 15 U.S.C. 78f(b)(8).

competitive forces, but rather set forth a ''cost-plus model,'' employing a ''conservative methodology'' that ''strictly considers only those costs that are most clearly directly related to the provision and maintenance of additional Limited Service MEI Ports.'' [105] As described above by the Exchange, MIAX projects $1.32 million in aggregate annual estimated costs for 2021 for additional Limited Service MEI Ports. Do commenters believe that the Exchange has provided sufficient detail about how it determined (a) which categories and sub-categories of third-party and internal expenses are most clearly directly associated with providing and maintaining *additional* Limited Service MEI Ports, (b) the total annual expenses associated with such categories/sub-categories, and (c) what percentage of each such expense should be allocated as actually supporting the *additional* Limited Service MEI Ports (as opposed to, for example, allocated to the first two ''free'' Limited Service MEI Ports or other types of ports or connectivity services offered by the Exchange)? The Exchange describes a ''proprietary'' process involving all Exchange department heads, including the finance department and numerous meetings between the Exchange's Chief Information Officer, Chief Financial Officer, Head of Strategic Planning and Operations, Chief Technology Officer, various members of the Legal Department, and other group leaders, but does not specify further what principles were applied in making these determinations or arriving at particular allocations. Do commenters believe further explanation is necessary? For employee compensation and benefit costs, for example, the Exchange calculated an allocation of employee time in several departments, including Technology, Back Office, Systems Operations, Networking, Business Strategy Development, and Trade Operations, but does not provide the job titles and salaries of persons whose time was accounted for, or explain the methodology used to determine how much of an employee's time is devoted to providing and maintaining additional Limited Service MEI Ports. What are commenters' views on whether the Exchange has provided sufficient detail on the identity and nature of services provided by third parties? Across all of the categories and sub-categories of third-party and internal expenses that the Exchange identified as being clearly directly associated with providing and maintaining additional Limited Service MEI Ports, what are commenters' views on whether the Exchange has provided sufficient detail on how it selected such categories/sub-categories and how shared costs within or among such categories/sub-categories are allocated to additional Limited Service MEI Ports, to permit an independent review and assessment of the reasonableness of purported cost-based fees and the corresponding profit margin thereon? Should the Exchange be required to identify the categories/sub-categories of expenses that it deemed *not* to be clearly directly associated with additional Limited Service MEI Ports, and/or what Exchange products or services account for the *un*-allocated percentage of those categories/sub-categories of expenses that were deemed to be associated with additional Limited Service MEI Ports (*e.g.,* what products or services are associated with the approximately 95 percent of applicable depreciation and amortization expenses that MIAX does *not* allocate to the Proposed Access Fees)? Do commenters believe that the costs projected for 2021 are generally representative of expected costs going forward (to the extent commenters consider 2021 to be a typical or atypical year), or should an exchange present an estimated range of costs with an explanation of how profit margins could vary along the range of estimated costs? Should the Exchange use cost projections or actual cost estimates for 2021 in a filing made in 2022, or make cost projections for 2022?

2. *Revenue Estimates and Profit Margin Range.* The Exchange uses a single monthly revenue figure (November 2021) as the basis for calculating its projected profit margin of 56 percent. The Exchange argues that projecting revenues on a per month basis is reasonable ''as the revenue generated from access services subject to the proposed fee generally remains static from month to month.'' [106] Yet the Exchange also acknowledges that ''the revenue . . . may vary from month to month due to changes in ports.'' [107] Similarly, the Exchange states that ''the number of ports has not materially changed over the previous months,'' yet also states that firms ''frequently add and drop ports mid-month.'' [108] Do commenters believe a single month provides a reasonable basis for a revenue projection? If not, why not? The profit margin is also dependent on the accuracy of the cost projections which, if inflated (intentionally or unintentionally), may render the projected profit margin meaningless. The Exchange acknowledges that this margin may fluctuate from month to month due to changes in the number of ports purchased, and that costs may increase.[109] The Exchange does not account for the possibility of cost decreases, however. What are commenters' views on the extent to which actual costs (or revenues) deviate from projected costs (or revenues)? Do commenters believe that the Exchange's methodology for estimating the profit margin is reasonable? Should the Exchange provide a range of profit margins that it believes are reasonably possible, and the reasons therefor?

3. *Reasonable Rate of Return.* The Exchange states that its Proposed Access Fees are ''designed to cover its costs with a limited return in excess of such costs,'' that ''revenue and associated profit margin . . . are not solely intended to cover the costs associated with providing access services subject to the Proposed Access Fees,'' and that a 56 percent margin is a limited return over such costs.[110] Do commenters agree with the Exchange that its expected 56 percent profit margin would constitute a reasonable rate of return over costs for additional Limited Service MEI Ports? If not, what would commenters consider to be a reasonable rate of return and/or what methodology would they consider to be appropriate for determining a reasonable rate of return? The Exchange states that it chose to initially provide additional Limited Service MEI Ports at a discounted price and to forego revenue that it otherwise could have generated from assessing higher fees.[111] Do commenters believe that this should be considered in the ''reasonableness'' assessment? Do commenters believe it relevant to an assessment of reasonableness that, according to the Exchange, the Proposed Access Fees are similar to or lower than fees charged by competing options exchanges with similar market share? Should an assessment of reasonable rate of return include consideration of factors other than costs; and if so, what factors should be considered, and why?

4. *Periodic Reevaluation.* The Exchange has addressed whether it believes a material deviation from the anticipated profit margin would warrant the need to make a rule filing pursuant to Section 19(b) of the Act to increase or decrease the fees accordingly, stating that ''[a]ny requirement that an exchange should conduct a periodic re-evaluation on a set timeline of its cost justification and amend its fees accordingly should be established by the Commission holistically, applied to all exchanges and not just pending fee proposals such as this filing,'' and that ''[i]n order to be fairly applied, such a mandate should be applied to existing access fees as well.'' [112] In light of the impact that the number of ports purchased has on profit margins, and the potential for costs to decrease (or increase) over time, what are commenters' views on the need for exchanges to commit to reevaluate, on an ongoing and periodic basis, their cost-based connectivity fees to ensure that the fees stay in line with their stated profitability projections and do not become unreasonable over time, for example, by failing to adjust for efficiency gains, cost increases or decreases, and changes in subscribers? How formal should that process be, how often should that reevaluation occur, and what metrics and thresholds should be considered? How soon after a new connectivity fee change is implemented should an exchange assess whether its revenue and/or cost estimates were accurate and at what threshold should an exchange commit to file a fee change if its estimates were inaccurate? Should an initial review take place within the first 30 days after a connectivity fee is implemented? 60 days? 90 days? Some other period?

5. *Tiered Structure for Additional Limited Service MEI Ports.* The Exchange states that the proposed tiered fee structure is designed to set the amount of the fees to relate to the number of ports a firm purchases [113] and that ''[c]harging an incrementally higher fee to a Market Maker that utilizes numerous ports is directly related to the increased costs the

[105] *See supra* Section II.A.2.

[106] *See id.*

[107] *See id.*

[108] *See id.*

[109] *See id.*

[110] *See id.*

[111] *See id.*

[112] *See id.*

[113] *See id.*

Exchange incurs in providing and maintaining those additional ports.'' [114] According to the Exchange, firms that purchase numerous Limited Service MEI Ports are primarily those that engage in advanced trading strategies, typically generate a disproportionate amount of messages and order traffic, and frequently add or drop ports mid-month, and thus that ''it is equitable for these firms to experience increased port costs based on their disproportionate pull on Exchange resources to provide the additional port access.'' [115] The Proposed Access Fees would not just increase the previous $100 per additional Limited Service MEI Port fee, but would *progressively* increase the fee up to 2.5-fold (up to $250 per port for seven or more ports). However, the Exchange has not specifically asserted that it is, for example, 2.5 times more costly to provide the seventh or more ports. Instead, the Exchange argues generally that the more ports purchased by a Market Maker ''likely'' results in greater expenditure of Exchange resources and increased cost to the Exchange, and that as the number of ports an entity has increases, certain other costs incurred by the Exchange that are correlated to, though not directly affected by, port costs (*e.g.,* storage costs, surveillance costs, service expenses) also increase.[116] Do commenters believe that the fees for each tier, as well as the fee differences between the tiers, are supported by the Exchange's assertions that it set the tiered-pricing structure in a manner that is equitable and not unfairly discriminatory? Do commenters believe that the Exchange should demonstrate how the proposed tiered fee levels correlate with tiered costs (*e.g.,* by providing cost information broken down by tier, messaging volumes through the additional Limited Service MEI Ports by tier, and/or mid-month add/drop rates by tier) to better substantiate, by tier, the ''disproportionate pull'' on the Exchange's resources as a firm increases the number of additional Limited Service MEI Ports that it purchases and to permit an assessment of the Exchange's statement that the Proposed Access Fees ''are solely determined by the individual Members' or non-Members' business needs and its impact on Exchange resources''?[117]

Under the Commission's Rules of Practice, the ''burden to demonstrate that a proposed rule change is consistent with the Exchange Act and the rules and regulations issued thereunder . . . is on the [SRO] that proposed the rule change.'' [118] The description of a proposed rule change, its purpose and operation, its effect, and a legal analysis of its consistency with applicable requirements must all be sufficiently detailed and specific to support an affirmative Commission finding,[119] and any failure of an SRO to provide this information may result in the Commission not having a sufficient basis to make an affirmative finding that a proposed rule change is consistent with the Act and the applicable rules and regulations.[120] Moreover, ''unquestioning reliance'' on an SRO's representations in a proposed rule change would not be sufficient to justify Commission approval of a proposed rule change.[121]

The Commission believes it is appropriate to institute proceedings to allow for additional consideration and comment on the issues raised herein, including as to whether the proposal is consistent with the Act, any potential comments or supplemental information provided by the Exchange, and any additional independent analysis by the Commission.

V. Commission's Solicitation of Comments

The Commission requests written views, data, and arguments with respect to the concerns identified above as well as any other relevant concerns. In particular, the Commission invites the written views of interested persons concerning whether the proposal is consistent with Sections 6(b)(4), 6(b)(5), and 6(b)(8), or any other provision of the Act, or the rules and regulations thereunder. The Commission asks that commenters address the sufficiency and merit of the Exchange's statements in support of the proposal, in addition to any other comments they may wish to submit about the proposed rule change. Although there do not appear to be any issues relevant to approval or disapproval that would be facilitated by an oral presentation of views, data, and arguments, the Commission will consider, pursuant to Rule 19b–4, any request for an opportunity to make an oral presentation.[122]

Interested persons are invited to submit written data, views, and arguments regarding whether the proposal should be approved or disapproved by March 15, 2022. Any person who wishes to file a rebuttal to any other person's submission must file that rebuttal by March 29, 2022.

Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's internet comment form (*http://www.sec.gov/rules/sro.shtml*); or
- Send an email to *rule-comments@sec.gov.* Please include File No. SR–MIAX–2022–08 on the subject line.

Paper Comments

- Send paper comments in triplicate to Secretary, Securities and Exchange Commission, 100 F Street NE, Washington, DC 20549–1090.

All submissions should refer to File No. SR–MIAX–2022–08. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's internet website (*http://www.sec.gov/rules/sro.shtml*). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street NE, Washington, DC 20549, on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change. Persons submitting comments are cautioned that we do not redact or edit personal identifying information from comment submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File No. SR–MIAX–2022–08 and should be submitted on or before March 15, 2022. Rebuttal comments should be submitted by March 29, 2022.

VI. Conclusion

It is therefore ordered, pursuant to Section 19(b)(3)(C) of the Act,[123] that File No. SR–MIAX–2022–08 be, and hereby is, temporarily suspended. In addition, the Commission is instituting

[114] *See id.*

[115] *See id.*

[116] *See id.*

[117] *See id.*

[118] 17 CFR 201.700(b)(3).

[119] *See id.*

[120] *See id.*

[121] *See Susquehanna Int'l Group, LLP* v. *Securities and Exchange Commission,* 866 F.3d 442, 446–47 (D.C. Cir. 2017) (rejecting the Commission's reliance on an SRO's own determinations without sufficient evidence of the basis for such determinations).

[122] 15 U.S.C. 78s(b)(2). Section 19(b)(2) of the Act grants the Commission flexibility to determine what type of proceeding—either oral or notice and opportunity for written comments—is appropriate for consideration of a particular proposal by an SRO. *See* Securities Acts Amendments of 1975, Report of the Senate Committee on Banking, Housing and Urban Affairs to Accompany S. 249, S. Rep. No. 75, 94th Cong., 1st Sess. 30 (1975).

[123] 15 U.S.C. 78s(b)(3)(C).

proceedings to determine whether the proposed rule change should be approved or disapproved.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[124]

J. Matthew DeLesDernier,

Assistant Secretary.

[FR Doc. 2022–03654 Filed 2–18–22; 8:45 am]

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SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–94251; File No. SR–MIAX–2022–09]

Self-Regulatory Organizations: Notice of Filing and Immediate Effectiveness of a Proposed Rule Change by Miami International Securities Exchange, LLC To Amend Exchange Rule 1308, Supervision of Accounts

February 15, 2022.

Pursuant to the provisions of Section 19(b)(1) of the Securities Exchange Act of 1934 (''Act'')[1] and Rule 19b–4 thereunder,[2] notice is hereby given that on February 3, 2022, Miami International Securities Exchange, LLC (''MIAX Options'' or the ''Exchange'') filed with the Securities and Exchange Commission (''Commission'') a proposed rule change as described in Items I, II, and III below, which Items have been prepared by the Exchange. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

The Exchange is filing a proposal to amend Exchange Rule 1308, Supervision of Accounts, to extend the temporary remote inspection relief for Members[3] to complete their branch office[4] inspections for the calendar years 2020 and 2021 to include calendar year 2022 through December 31, 2022.

The text of the proposed rule change is available on the Exchange's website at *http://www.miaxoptions.com/rule-filings/* at MIAX Options' principal office, and at the Commission's Public Reference Room.

II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the Exchange included statements concerning the purpose of and basis for the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in Item IV below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

The Exchange proposes to amend Exchange Rule 1308, Supervision of Accounts, to extend the temporary remote inspection relief for Members to complete their branch office inspections for the calendar years 2020 and 2021 to include calendar year 2022 through December 31, 2022.

The COVID–19 pandemic has caused a host of operational disruptions to the securities industry and impacted Members, regulators, investors, and other stakeholders. In response to the pandemic, the Exchange began providing temporary relief to Members from specified Exchange Rules and requirements, including Exchange Rule 1308(d), Annual Branch Office Inspections.

Exchange Rules require Members to conduct branch[5] and non-branch office and location inspections pursuant to certain annual cycles. Specifically, pursuant to Exchange Rule 1308(d), each branch office that supervises one or more non-branch location must be inspected no less often than once each calendar year, unless it qualifies for certain exemptions.[6] Every branch office, without exception, must be inspected at least once every three calendar-years. Members must maintain written reports of such inspections.[7]

In November 2020, the Exchange adopted Exchange Rule 1308(d)(4) and (d)(5), which has expired by its terms, that extended the time by which Members must complete their calendar year 2020 inspection obligations to March 31, 2021, without an on-site visit to the office or location.[8] The Exchange Rule 1308(d)(5) automatically sunset on December 31, 2021, to provide Members the option of satisfying their inspection obligations under Exchange Rule 1308 remotely for calendar years 2020 and 2021, subject to specified conditions,[9] due to the logistical challenges of going on-site while public health and safety concerns related to COVID–19 persisted. The Exchange notes that these temporary rules are substantively identical to the temporary inspection extension and remote relief rules filed by the Financial Industry Regulatory Authority (''FINRA'').[10]

While there are signs of improvement, much uncertainty remains. The emergence of the COVID–19 variants,[11] dissimilar vaccination rates throughout the United States, and the uptick in transmissions in many locations indicate that COVID–19 remains an active and real public health concern.[12]

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[124] 17 CFR 200.30–3(a)(12), (57) and (58).

[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

[3] The term ''Member'' means an individual or organization approved to exercise the trading rights associated with a Trading Permit. Members are deemed ''members'' under the Exchange Act. *See* Exchange Rule 100.

[4] A ''branch office'' is any location where one or more associated persons of a Member regularly conduct the business of effecting any transactions in, or inducing or attempting to induce the purchase or sale of any security, or is held out as such, with such exclusions pursuant to Exchange Rule 1306(c)(1)–(7). *See* Exchange Rule 1306(c).

[5] The Exchange notes that notwithstanding the exclusions in subparagraphs (c)(1)–(7) of Exchange Rule 1306, any location that is responsible for supervising the activities of persons associated with a Member at one or more non-branch locations of such Member is considered to be a branch office. *See* Exchange Rule 1306(d).

[6] A Member may demonstrate to the satisfaction of the Exchange that because of proximity, special reporting or supervisory practice, other arrangements may satisfy Exchange Rule 1308(d)'s requirements for a particular branch office, or that, based upon the written policies and procedures of such Member providing for a systematic risk-based surveillance system, the Member submits a proposal to the Exchange and receives, in writing, an exemption from the requirement in Exchange 1308(d), pursuant to Exchange Rule 1308(e).

[7] *See* Exchange Rule 1308(d)(2).

[8] *See* Securities Exchange Act Release No. 90937 (January 25, 2021), 86 FR 6944 (January 15, 2021) (SR–MIAX–2021–01).

[9] *See id.*

[10] *See* Securities and Exchange Act Release Nos. 89188 (June 30, 2020), 85 FR 40713 (July 7, 2020) (SR–FINRA–2020–019); *and* 90454 (November 18, 2020), 85 FR 75097 (November 24, 2020) (Notice of Filing and Immediate Effectiveness of File No. SR–FINRA–2020–040).

[11] *See* The Centers for Disease Control and Prevention (''CDC''), What You Need to Know About Variants, *https://www.cdc.gov/coronavirus/2019-ncov/variants/variant.html* (stating, in part, that ''the Delta variant causes more infections and spreads faster than earlier forms of the virus that causes COVID19'') (updated September 3, 2021). *See also* CDC, The Possibility of COVID–19 Illness After Vaccination: Breakthrough Infections, *https://www.cdc.gov/coronavirus/2019-ncov/vaccines/effectiveness/why-measure-effectiveness/breakthrough-cases.html* (stating, in part, that ''COVID–19 vaccines are effective at preventing infection, serious illness, and death. Most people who get COVID–19 are unvaccinated. However, since vaccines are not 100% effective at preventing infection, some people who are fully vaccinated will still get COVID–19 . . . People who get vaccine breakthrough infections can be contagious'') (updated August 23, 2021).

[12] For example, President Joe Biden on July 29, 2021, announced several measures to increase the number of people vaccinated against COVID–19 and to slow the spread of the Delta variant, including strengthening safety protocols for federal

The Exchange understands that Members have delayed their return-to-office plans due to the continued pandemic and are considering implementing or have implemented hybrid work arrangements dependent on functions and regulatory requirements.[13] To that end, in order to address ongoing industry-wide concerns regarding having to conduct in-person office inspections while safety concerns related to the pandemic persist and to align with pandemic-related regulatory relief provided by FINRA, which recently extended their substantively identical temporary remote inspection rules,[14] the Exchange proposes to extend Exchange Rule 1308(d)(5) to cover calendar year 2022 inspection obligations through December 31, 2022. The proposed extension would provide clarity to Members on regulatory requirements and account for the time needed for many Members to carefully assess when and how to have their employees safely return to their offices in light of vaccination coverage in the U.S. and transmission levels of the virus, including any emergent variants throughout the country.

By extending Exchange Rule 1308(d)(5) through December 31, 2022, the Exchange does not propose to amend the other conditions of the temporary rule. The proposed amendment to Exchange Rule 1308(d)(5) simply provides that for calendar year 2022, a Member has the option to conduct those inspections remotely through December 31, 2022. The current conditions of Exchange Rule 1308(d)(5) for Members that elect to conduct remote inspections would remain unchanged. Such Members must amend or supplement their written supervisory procedures for remote inspections, use remote inspections as part of an effective supervisory system, and maintain the required documentation. The additional period of time would also enable the Exchange to further monitor the effectiveness of remote inspections and their impacts—positive or negative—on Members' overall supervisory systems in the evolving workplace. Notwithstanding the proposed temporary rule change, a Member remains subject to the other requirements of Exchange Rule 1308(d).

The Exchange continues to believe this temporary remote inspection option is a reasonable alternative to provide to Members to fulfill their Exchange Rule 1308(d) obligations during the pandemic and is designed to achieve the investor protection objectives of the inspection requirements under these unique circumstances. Members should consider whether, under their particular operating conditions, reliance on remote inspections would be reasonable under the circumstances. For example, Members with offices that are open to the public or that are otherwise doing business as usual should consider whether some form of in-person inspections would be feasible and appropriately contribute to a supervisory system that is reasonably designed to achieve compliance with applicable securities laws and regulations as well as with applicable Exchange Rules.

The Exchange notes that the proposed rule change is substantively identical to the proposed rule changes recently filed by FINRA.[15] The Exchange notes that MIAX Chapter XIII is incorporated by reference into the rulebooks of the Exchange's affiliates, MIAX PEARL, LLC (''Pearl'') and MIAX Emerald, LLC (''Emerald''). As such, the amendments to MIAX Chapter XIII proposed herein will also apply to MIAX Pearl and MIAX Emerald Chapters XIII.

2. Statutory Basis

The Exchange believes the proposed rule change is consistent with the Act and the rules and regulations thereunder applicable to the Exchange and, in particular, the requirements of Section 6(b) of the Act.[16] Specifically, the Exchange believes the proposed rule change is consistent with the Section 6(b)(5)[17] requirements that the rules of an exchange be designed to prevent fraudulent and manipulative acts and practices, to promote just and equitable principles of trade, to foster cooperation and coordination with persons engaged in regulating, clearing, settling, processing information with respect to, and facilitating transactions in securities, to remove impediments to and perfect the mechanism of a free and open market and a national market system, and, in general, to protect investors and the public interest. Additionally, the Exchange believes the proposed rule change is consistent with the Section 6(b)(5)[18] requirement that the rules of an exchange not be designed to permit unfair discrimination between customers, issuers, brokers, or dealers.

In particular, the Exchange believes that, in light of the impact of COVID–19 on the performance of on-site office and location inspections pursuant to Exchange Rule 1308(d), the proposed temporary rule change is intended to provide Members a temporary regulatory option to conduct inspections of offices and locations remotely during the calendar year 2022. The proposed temporary rule change does not relieve Members from meeting their existing core regulatory obligations to establish and maintain a system to supervise the activities of each associate person that is reasonably designed to achieve compliance with applicable securities laws and regulations as well as with applicable Exchange Rules that directly serve investor protection. In a time when faced with ongoing challenges resulting from the COVID–19 pandemic, the Exchange believes that the proposed temporary rule change provides sensibly tailored relief that will afford Members the ability to assess when and how to implement their work re-entry plans as measured against the health and safety of their personnel, while continuing to serve and promote the protection of investors and the public interest.

B. Self-Regulatory Organization's Statement on Burden on Competition

The Exchange does not believe that the proposed rule change will impose any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act. The Exchange does not believe the proposed rule change will impose any burden on intramarket competition that is not necessary or appropriate in furtherance of the purposes of the Act because the proposed extension of the temporary remote inspection relief rule will apply equally to all Members required to conduct office and location inspections in calendar year 2022 through December 31, 2022. The Exchange further does not believe that the proposed extension to the temporary rule will impose any burden on intermarket competition because it relates only to the extension

government employees and contractors. *See https://www.whitehouse.gov/briefing-room/statements-releases/2021/07/29/factsheet-president-biden-to-announce-new-actions-to-get-more-americansvaccinated-and-slow-the-spread-of-the-delta-variant.* More recently, President Joe Biden on August 31, 2021, briefed the press on, among other things, the government's response to the COVID–19 surge, noting the government's continuing efforts to help states with Delta variant outbreaks. *See https://www.whitehouse.gov/briefing-rom/press-briefings/2021/08/31/pressbriefing-by-white-house-covid-19-response-team-and-public-health-officials-53/.*

[13] The Exchange notes that a majority of its Members are FINRA member firms as well, and that through FINRA's ongoing monitoring, the Exchange has learned that many of its Members have delayed plans to require a full return to the office and that most continue to operate in a remote or hybrid environment.

[14] *See* Securities and Exchange Act Release Nos. 93002 (September 15, 2021), 86 FR 52508 (September 21, 2021) (SR–FINRA–2021–023); *and* 94018 (January 20, 2022), 87 FR 4072 (January 26, 2022) (SR–FINRA–2022–001).

[15] *Id.*

[16] 15 U.S.C. 78f(b).

[17] 15 U.S.C. 78f(b)(5).

[18] *Id.*

of the remote manner in which inspections for the calendar year 2022 may be conducted. Additionally, and as stated above, FINRA has recently submitted a filing to extend its substantively identical temporary remote relief rule for its trading permit holders and members in the same manner.[19]

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others

Written comments were neither solicited nor received.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

Because the foregoing proposed rule change does not: (i) Significantly affect the protection of investors or the public interest; (ii) impose any significant burden on competition; and (iii) become operative for 30 days after the date of the filing, or such shorter time as the Commission may designate, it has become effective pursuant to 19(b)(3)(A) of the Act [20] and Rule 19b–4(f)(6) [21] thereunder.

At any time within 60 days of the filing of the proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act. If the Commission takes such action, the Commission shall institute proceedings to determine whether the proposed rule should be approved or disapproved.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments

• Use the Commission's internet comment form (*http://www.sec.gov/rules/sro.shtml*); or

• Send an email to *rule-comments@sec.gov.* Please include File Number SR–MIAX–2022–09 on the subject line.

Paper Comments

• Send paper comments in triplicate to Secretary, Securities and Exchange Commission, 100 F Street NE, Washington, DC 20549–1090.

All submissions should refer to File Number SR–MIAX–2022–09. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's internet website (*http://www.sec.gov/rules/sro.shtml*). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street NE, Washington, DC 20549, on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change. Persons submitting comments are cautioned that we do not redact or edit personal identifying information from comment submissions. You should submit only information that you wish to make available publicly.

All submissions should refer to File Number SR–MIAX–2022–09 and should be submitted on or before March 15, 2022.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[22]

J. Matthew DeLesDernier,

Assistant Secretary.

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[19] *See supra* note 14.

[20] 15 U.S.C. 78s(b)(3)(A).

[21] 17 CFR 240.19b–4(f)(6). In addition, Rule 19b–4(f)(6) requires a self-regulatory organization to give the Commission written notice of its intent to file the proposed rule change at least five business days prior to the date of filing of the proposed rule change, or such shorter time as designated by the Commission. The Exchange has satisfied this requirement.

[22] 17 CFR 200.30–3(a)(12).

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–94263; File No. SR–EMERALD–2022–06]

Self-Regulatory Organizations; MIAX Emerald, LLC; Notice of Filing of a Proposed Rule Change To Establish Fees for the Exchange's cToM Market Data Product; Suspension of and Order Instituting Proceedings To Determine Whether To Approve or Disapprove the Proposed Rule Change

February 15, 2022.

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (''Act''),[1] and Rule 19b–4 thereunder,[2] notice is hereby given that on February 7, 2022, MIAX Emerald, LLC (''MIAX Emerald'' or ''Exchange'') filed with the Securities and Exchange Commission (''Commission'') a proposed rule change as described in Item II below, which Item has been prepared by the Exchange. The Exchange filed the proposed rule change pursuant to Section 19(b)(3)(A)(ii) of the Act,[3] and Rule 19b–4(f)(2) thereunder.[4] The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons and is, pursuant to Section 19(b)(3)(C) of the Act, hereby: (i) Temporarily suspending the proposed rule change; and (ii) instituting proceedings to determine whether to approve or disapprove the proposed rule change.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

The Exchange is filing a proposal to amend the Exchange's Fee Schedule (''Fee Schedule'') to establish fees for the market data product known as MIAX Emerald Complex Top of Market (''cToM''). The fees became operative on February 7, 2022. The text of the proposed rule change is available on the Exchange's website at *http://www.miaxoptions.com/rule-filings/emerald,* at MIAX's principal office, and at the Commission's Public Reference Room.

II. Self-Regulatory Organization's Description of the Proposed Rule Change

In its filing with the Commission, the Exchange included statements concerning the purpose of and basis for the proposed rule change and discussed any comments it received on the

[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

[3] 15 U.S.C. 78s(b)(3)(A)(ii).

[4] 17 CFR 240.19b–4(f)(2).

proposed rule change. The text of these statements may be examined at the places specified in Item IV [sic] below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of such statements.

A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

The Exchange proposes to amend Section 6)a) of the Fee Schedule to establish fees for the cToM data product. The Exchange initially filed this proposal on June 30, 2021 with the proposed fees to be effective beginning July 1, 2021 (''First Proposed Rule Change'').[5] The First Proposed Rule Change was published for comment in the **Federal Register** on July 15, 2021.[6] Although the Commission did not receive any comment letters on the First Proposed Rule Change, on August 27, 2021, the Commission issued its Suspension of and Order Instituting Proceedings to Determine Whether to Approve or Disapprove Proposed Rule Changes to Establish Fees for the Exchanges' cToM Market Data Products (relating to the First Proposed Rule Change and a similar filing by the Exchange's affiliate, Miami International Securities Exchange, LLC (''MIAX''), to also adopt cToM fees).[7] The Exchange withdrew the First Proposed Rule Change on September 30, 2021 [8] and re-submitted the proposal, with the proposed fee changes being immediately effective (''Second Proposed Rule Change'').[9] The Second Proposed Rule Change provided additional justification for the proposed fee changes and addressed comments provided by the Commission Staff. On October 14, 2021, the Exchange withdrew the Second Proposed Rule Change and submitted its proposal to adopt cToM fees to again provide additional justification for the proposed fee changes and address comments provided by the Commission Staff (''Third Proposed Rule Change'').[10] The Third Proposed Rule Change was published for comment in the **Federal Register** on November 1, 2021.[11] Although the Commission did not again receive any comment letters on the Third Proposed Rule Change, the Exchange withdrew the Third Proposed Rule Change on December 10, 2021 submitted a revised proposal for immediate effectiveness (''Fourth Proposed Rule Change'').[12] The Fourth Proposed Rule Change was published for comment in the **Federal Register** on December 23, 2021.[13] The Fourth Proposed Rule Change meaningfully attempted to provide additional justification and explanation for the proposed fee change in response to a telephone conversation with Commission Staff on December 7, 2021 relating to the Third Proposed Rule Change. Although the Commission again did not receive any comment letters on the Fourth Proposed Rule Change, the Exchange withdrew the Fourth Proposed Rule Change on February 7, 2022 and now submits this revised proposal for immediate effectiveness (''Fifth Proposed Rule Change''). This Fifth Proposed Rule Change provides additional justification and explanation for the proposed fee changes.

Background

The Exchange previously adopted rules governing the trading of Complex Orders [14] on the MIAX Emerald System [15] in 2018,[16] ahead of the Exchange's planned launch, which took place on March 1, 2019. Shortly thereafter, the Exchange adopted the market data product cToM and expressly waived fees for cToM to provide an incentive to prospective market participants to subscribe to that market data feed.[17] Prior to the First Proposed Rule Change, the Exchange did not charge fees to cToM subscribers during the nearly three years since it was first available for subscription.

In summary, cToM provides subscribers with the same information as the MIAX Emerald Top of Market (''ToM'') data product as it relates to the Strategy Book,[18] *i.e.,* the Exchange's best bid and offer for a complex strategy, with aggregate size, based on displayable order and quoting interest in the complex strategy on the Exchange. However, cToM provides subscribers with the following additional information that is not included in ToM: (i) The identification of the complex strategies currently trading on the Exchange; (ii) complex strategy last sale information; and (iii) the status of securities underlying the complex strategy (*e.g.,* halted, open, or resumed). cToM is therefore a distinct market data product from ToM in that it includes additional information that is not available to subscribers that receive only the ToM data feed. ToM subscribers are not required to subscribe to cToM, and cToM subscribers are not required to subscribe to ToM.[19]

Proposal

The Exchange now proposes to amend Section 6)a) of the Fee Schedule to charge monthly fees to Distributors [20] of cToM. Specifically, the Exchange proposes to assess Internal Distributors $1,250 per month and External Distributors $1,750 per month for the cToM data feed.[21] The Exchange notes that the proposed monthly cToM fees for Internal and External Distributors are the same prices that the Exchange charges for its ToM data product and are identical to the prices the Exchange's affiliate, MIAX, proposes to charge for its cToM product.

As it does today for ToM, the Exchange proposes to assess cToM fees on Internal and External Distributors in each month the Distributor is credentialed to use cToM in the production environment. Also, as the Exchange does today for ToM, market data fees for cToM will be reduced for new Distributors for the first month during which they subscribe to cToM,

[5] *See* Securities Exchange Act Release No. 92358 (July 9, 2021), 86 FR 37361 (July 15, 2021) (SR–EMERALD–2021–21).

[6] *Id.*

[7] *See* Securities Exchange Act Release No. 92789 (August 27, 2021), 86 FR 49364 (September 2, 2021) (SR–MIAX–2021–28, SR–EMERALD–2021–21) (the ''Suspension Order'').

[8] *See* Securities Exchange Act Release No. 93471 (October 29, 2021), 86 FR 60947 (November 4, 2021).

[9] *See* SR–EMERALD–2021–32.

[10] Securities Exchange Act Release No. 93427 (October 26, 2021), 86 FR 60310 (November 1, 2021) (SR–EMERALD–2021–34).

[11] *Id.*

[12] Securities Exchange Act Release No. 93811 (December 17, 2021), 86 FR 73051 (December 23, 2021) (SR–EMERALD–2021–44).

[13] *Id.*

[14] *See* Exchange Rule 518(a)(5) for the definition of Complex Orders.

[15] The term ''System'' means the automated trading system used by the Exchange for the trading of securities. *See* Exchange Rule 100.

[16] *See* Securities Exchange Act Release Nos. 84891 (December 20, 2018), 83 FR 67421 (December 28, 2018) (In the Matter of the Application of MIAX EMERALD, LLC for Registration as a National Securities Exchange; Findings, Opinion, and Order of the Commission); *and* 85345 (March 18, 2019), 84 FR 10848 (March 22, 2019) (SR–EMERALD–2019–13) (Notice of Filing and Immediate Effectiveness of a Proposed Rule Change To Amend Exchange Rule 518, Complex Orders).

[17] *See* Securities Exchange Act Release No. 85207 (February 27, 2019), 84 FR 7963 (March 5, 2019) (SR–EMERALD–2019–09) (providing a complete description of the cToM data feed).

[18] The ''Strategy Book'' is the Exchange's electronic book of complex orders and complex quotes. *See* Exchange Rule 518(a)(17).

[19] *See supra* note 15.

[20] A ''Distributor'' of MIAX Emerald data is any entity that receives a feed or file of data either directly from MIAX Emerald or indirectly through another entity and then distributes it either internally (within that entity) or externally (outside that entity). All Distributors are required to execute a MIAX Emerald Distributor Agreement. *See* Section 6)a) of the Fee Schedule.

[21] The Exchange also proposes to make a minor related change to remove ''(as applicable)'' from the explanatory paragraph in Section 6)a) as it will not change fees for both the ToM and cToM data feeds.

based on the number of trading days that have been held during the month prior to the date on which that subscriber has been credentialed to use cToM in the production environment. Such new Distributors will be assessed a pro-rata percentage of the fees in the table in Section 6)a) of the Fee Schedule, which is the percentage of the number of trading days remaining in the affected calendar month as of the date on which they have been credentialed to use cToM in the production environment, divided by the total number of trading days in the affected calendar month.

The Exchange believes that other exchanges' fees for complex market data are useful examples and provides the below table for comparison purposes only to show how the Exchange's proposed fees compare to fees currently charged by other options exchanges for similar complex market data. As shown by the below table, the Exchange's proposed fees for cToM are similar to or less than fees charged for similar data products provided by other options exchanges.

Exchange	Monthly fee
MIAX Emerald (as proposed)	$1,250—Internal Distributor. $1,750—External Distributor
NYSE American, LLC ("Amex")[22]	$1,500 Access Fee. $1,000 Redistribution Fee.
NYSE Arca, Inc. ("Arca")[23]	$1,500 Access Fee. $1,000 Redistribution Fee.
NASDAQ PHLX LLC ("PHLX")[24]	$3,000—Internal Distributor. $3,500—External Distributor.

The Exchange also proposes to amend the paragraph below the table of fees for ToM and cToM in Section 6)a) of the Fee Schedule to make a minor, non-substantive corrective edit. In particular, the Exchange proposes to delete the phrase ''(as applicable)'' in the first sentence following the table of fees for ToM and cToM. The purpose of this proposed change is to remove unnecessary text from the Fee Schedule.

cToM Content Is Available From Alternative Sources

cToM is also not the exclusive source for Complex Order information from the Exchange and market participants may choose to subscribe to the Exchange's other data products to receive such information. It is a business decision of market participants whether to subscribe to the cToM data product or not. Market participants that choose not to subscribe to cToM can derive much, if not all, of the same information provided in the cToM feed from other Exchange sources, including, for example, the MIAX Emerald Order Feed (''MOR'').[25] The following cToM information is provided to subscribers of MOR: The Exchange's best bid and offer for a complex strategy, with aggregate size, based on displayable order and quoting interest in the complex strategy on the Exchange; the identification of the complex strategies currently trading on the Exchange; and the status of securities underlying the complex strategy (*e.g.,* halted, open, or resumed). In addition to the cToM information contained in MOR, complex strategy last sale information can be derived from the Exchange's ToM data feed. Specifically, market participants may deduce that last sale information for multiple trades in related options series that are disseminated via the ToM data feed with the same timestamp are likely part of a Complex Order transaction and last sale.

Implementation

The proposed rule change is immediately effective.

2. Statutory Basis

The Exchange believes that its proposal to amend its Fee Schedule is consistent with Section 6(b) of the Act[26] in general, and furthers the objectives of Section 6(b)(4) of the Act[27] in particular, in that it is an equitable allocation of reasonable dues, fees and other charges among its members and issuers and other persons using its facilities. The Exchange also believes the proposal furthers the objectives of Section 6(b)(5) of the Act in that it is designed to promote just and equitable principles of trade, remove impediments to and perfect the mechanism of a free and open market and a national market system, and, in general protect investors and the public interest and is not designed to permit unfair discrimination between customers, issuers, brokers and dealers.

On March 29, 2019, the Commission issued an Order disapproving a proposed fee change by the BOX Market LLC Options Facility to establish connectivity fees for its BOX Network (the ''BOX Order'').[28] On May 21, 2019, the Commission Staff issued guidance ''to assist the national securities exchanges and FINRA . . . in preparing Fee Filings that meet their burden to demonstrate that proposed fees are consistent with the requirements of the Securities Exchange Act.''[29] Based on both the BOX Order and the Guidance, the Exchange believes that it has clearly met its burden to demonstrate that the proposed fees are consistent with the Act because they (i) are reasonable, equitably allocated, not unfairly discriminatory, and not an undue burden on competition; (ii) comply with the BOX Order and the Guidance; (iii) are supported by evidence (including comprehensive revenue and cost data and analysis) that they are fair and reasonable because they will not result in excessive pricing or supra-competitive profit; and (iv) utilize a cost-based justification framework that is substantially similar to a framework previously used by the Exchange, and its affiliates MIAX and MIAX PEARL,

[22] *See* NYSE American Options Proprietary Market Data Fees, American Options Complex Fees, at *https://www.nyse.com/publicdocs/nyse/data/NYSE_American_Options_Market_Data_Fee_Schedule.pdf.*

[23] *See* NYSE Arca Options Proprietary Market Data Fees, Arca Options Complex Fees, at *https://www.nyse.com/publicdocs/nyse/data/NYSE_Arca_Options_Proprietary_Data_Fee_Schedule.pdf.*

[24] *See* PHLX Price List—U.S. Derivatives Data, PHLX Orders Fees, at *http://www.nasdaqtrader.com/Trader.aspx?id=DPPriceListOptions#PHLX.*

[25] *See* MIAX website, Market Data & Offerings, at *https://www.miaxoptions.com/market-data-offerings* (last visited December 10, 2021). In general, MOR provides real-time ulta-low latency updates on the following information: New Simple Orders added to the MIAX Emerald Order Book; updates to Simple Orders resting on the MIAX Emerald Order Book; new Complex Orders added to the Strategy Book (*i.e.,* the book of Complex Orders); updates to Complex Orders resting on the Strategy Book; MIAX Emerald listed series updates; MIAX Emerald Complex Strategy definitions; the state of the MIAX Emerald System; and MIAX Emerald's underlying trading state.

[26] 15 U.S.C. 78f(b).

[27] 15 U.S.C. 78f(b)(4) and (5).

[28] *See* Securities Exchange Act Release No. 85459 (March 29, 2019), 84 FR 13363 (April 4, 2019) (SR–BOX–2018–24, SR–BOX–2018–37, and SR–BOX–2019–04) (Order Disapproving Proposed Rule Changes to Amend the Fee Schedule on the BOX Market LLC Options Facility to Establish BOX Connectivity Fees for Participants and Non-Participants Who Connect to the BOX Network).

[29] *See* Staff Guidance on SRO Rule Filings Relating to Fees (May 21, 2019), at *https://www.sec.gov/tm/staff-guidance-sro-rule-filings-fees* (the ''Guidance'').

LLC (''MIAX Pearl''), to adopt or amend market data and non-transaction fees.[30]

The Proposed Fees Will Not Result in a Supra-Competitive Profit

The Exchange believes that exchanges, in setting fees of all types, should meet very high standards of transparency to demonstrate why each new fee or fee amendment meets the requirements of the Act that fees be reasonable, equitably allocated, not unfairly discriminatory, and not create an undue burden on competition among market participants. The Exchange believes this high standard is especially important when an exchange sets certain non-transaction fees, including market data fees. The Exchange believes that it is important to demonstrate that these fees are based on its costs to provide these products and reasonable business needs.

In the Guidance, the Commission Staff stated that, ''[a]s an initial step in assessing the reasonableness of a fee, staff considers whether the fee is constrained by significant competitive forces.'' [31] The Guidance further states that, ''. . . even where an SRO cannot demonstrate, or does not assert, that significant competitive forces constrain the fee at issue, a cost-based discussion may be an alternative basis upon which to show consistency with the Exchange Act.'' [32] In the Guidance, the Commission Staff further states that, ''[i]f an SRO seeks to support its claims that a proposed fee is fair and reasonable because it will permit recovery of the SRO's costs, or will not result in excessive pricing or supra-competitive profit, specific information, including quantitative information, should be provided to support that argument.'' [33] The Exchange does not assert that the proposed fees are constrained by competitive forces. Rather, the Exchange asserts that the proposed fees are reasonable because they will permit recovery of the Exchange's costs in providing services to supply cToM data and will not result in the Exchange generating a supra-competitive profit.

The Guidance defines ''supra-competitive profit'' as ''profits that exceed the profits that can be obtained in a competitive market.'' [34] The Commission Staff further states in the Guidance that ''the SRO should provide an analysis of the SRO's baseline revenues, costs, and profitability (before the proposed fee change) and the SRO's expected revenues, costs, and profitability (following the proposed fee change) for the product or service in question.'' [35] The Exchange provides this analysis below.

Based on this analysis, the Exchange believes the proposed fees are reasonable and do not result in a ''supra-competitive'' [36] profit. The Exchange believes that it is important to demonstrate that the proposed fees are based on its costs and reasonable business needs. The Exchange believes the proposed fees will allow the Exchange to offset expenses the Exchange has and will incur, and that the Exchange provides sufficient transparency (described below) into the costs and revenue underlying the proposed fees. Accordingly, the Exchange provides an analysis of its revenues, costs, and profitability associated with the proposed fees. This analysis includes information regarding its methodology for determining the costs and revenues associated with the proposed fees. As a result of this analysis, the Exchange believes the proposed fees are fair and reasonable as a form of cost recovery plus present the possibility of a reasonable return for the Exchange's aggregate costs of offering cToM data, which has been offered for free for nearly three years.

The proposed fees are based on a cost-plus model. In determining the appropriate fees to charge, the Exchange considered its costs to provide cToM data, using what it believes to be a conservative methodology (*i.e.,* that strictly considers only those costs that are most clearly directly related to the provision and maintenance of cToM data) to estimate such costs,[37] as well as the relative costs of providing and maintaining cToM data feeds, and set fees that are designed to cover its costs with a limited return in excess of such costs. However, as discussed more fully below, such fees may also result in the Exchange recouping less than all of its costs of providing and maintaining cToM data feeds because of the uncertainty of forecasting subscriber decision making with respect to firms' needs for cToM data and the likely potential for increased costs to procure the third-party services described below.

To determine the Exchange's costs to provide cToM data associated with the proposed fees, the Exchange conducted an extensive cost review in which the Exchange analyzed nearly every expense item in the Exchange's general expense ledger to determine whether each such expense relates to the proposed fees, and, if such expense did so relate, what portion (or percentage) of such expense actually supports the cToM data product associated with the proposed fees.

The Exchange also provides detailed information regarding the Exchange's cost allocation methodology—namely, information that explains the Exchange's rationale for determining that it was reasonable to allocate certain expenses described in this filing towards the cost to the Exchange to provide the services associated with the proposed fees. The Exchange conducted a thorough internal analysis to determine the portion (or percentage) of each expense to allocate to the support of services associated with the proposed fees. This analysis included discussions with each Exchange department head to determine the expenses that support services associated with the proposed fees. This included numerous meetings between the Exchange's Chief Information Officer, Chief Financial Officer, Head of Strategic Planning and Operations, Chief Technology Officer, various members of the Legal Department, and other group leaders. The Exchange reviewed each individual expense to determine if such expense was related to the proposed fees. Once the expenses were identified, the Exchange department heads, with the assistance of the Exchange's internal finance department, reviewed such expenses holistically on an Exchange-wide level to determine what portion of that expense supports providing services for the proposed fees. The sum of all such portions of expenses represents the total cost to the Exchange to provide services associated with the proposed fees. For the avoidance of doubt, no expense amount was allocated twice.

The internal cost analysis conducted by the Exchange is a proprietary process

[30] *See* Securities Exchange Act Release Nos. 91145 (February 17, 2021), 86 FR 11033 (February 23, 2021) (SR–EMERALD–2021–05) (proposal to establish market data fees for MIAX Emerald ToM, Administrative Information Subscriber feed, and MIAX Emerald Order Feed); 90981 (January 25, 2021), 86 FR 7582 (January 29, 2021) (SR–PEARL–2021–01) (proposal to increase connectivity fees); 91460 (April 2, 2021), 86 FR 18349 (SR–EMERALD–2021–11) (proposal to adopt port fees, increase connectivity fees, and increase additional limited service ports); 91033 (February 1, 2021), 86 FR 8455 (February 5, 2021) (SR–EMERALD–2021–03) (proposal to adopt trading permit fees).

[31] *See* Guidance, *supra* note 27.

[32] *Id.*

[33] *Id.*

[34] *Id.*

[35] *Id.*

[36] *Id.*

[37] For example, the Exchange only included the costs associated with providing and supporting cToM data feeds and excluded from its cost calculations any cost not directly associated with providing and maintaining such cToM data feeds. Thus, the Exchange notes that this methodology underestimates the total costs of providing and maintaining cToM data feeds.

that is designed to make a fair and reasonable assessment of costs and resources allocated to support the provision of services associated with the proposed fees. The Exchange acknowledges that this assessment can only capture a moment in time and that costs and resource allocations may change. That is why the Exchange has historically, and on an ongoing basis, periodically revisits its costs and resource allocations to ensure it is appropriately allocating resources to properly provide services to the Exchange's constituents. Any requirement that an exchange should conduct a periodic re-evaluation on a set timeline of its cost justification and amend its fees accordingly should be established by the Commission holistically, applied to all exchanges and not just pending fee proposals such as this filing. In order to be fairly applied, such a mandate should be applied to existing market data fees as well.

In accordance with the Guidance, the Exchange has provided sufficient detail to support a finding that the proposed fees are consistent with the Exchange Act. The proposal includes a detailed description of the Exchange's costs and how the Exchange determined to allocate those costs related to the proposed fees. In fact, the detail and analysis provided in this proposed rule change far exceed the level of disclosure provided in other exchange fee filings that have not been suspended by the Commission during its 60-day suspension period. A Commission determination that it is unable to make a finding that this proposed rule change is consistent with the Exchange Act would run contrary to the Commission Staff's treatment of other recent exchange fee proposals that have not been suspended and remain in effect today.[38] For example, a proposed fee filing that closely resembles the Exchange's current filing was submitted in 2021 by Nasdaq PHLX LLC (''PHLX''), which increased fees for PHLX's end of day, intra-day and historical market data, and adopted fees for external distribution of PHLX's derived data.[39] This filing was submitted on September 30, 2021, over two years after the Staff's Guidance was issued. In that filing, PHLX argued that the proposed fees were subject to competing products' fees at other exchanges and that there were available substitutes. This filing provided no cost based data or revenue analysis to support the amount of the proposed fees. Among other things, PHLX did not provide a description of the costs underlying its market data feeds to show that these particular fees did not generate supra-competitive profits or describe how any potential profit may be offset by increased costs associated with another fee included in its proposal. This filing, nonetheless, was not suspended by the Commission and remains in effect today.

The Exchange notes that the Investors Exchange, Inc. (''IEX'') recently submitted a proposed rule change to adopt fees for two real-time proprietary market data feeds, TOPS and DEEP (''IEX Fee Proposal''). Like the Exchange proposes herein, IEX previously provided its TOP and DEEP market data feeds for free and proposed to adopt modest, below market fees. Also like in this proposal, the IEX Fee Proposal included a detailed subscriber data and cost-based analysis in compliance with the Guidance. Nonetheless, on December 30, 2021, the Commission suspended the IEX Fee Proposal and instituted proceedings to determine whether to approve or disapprove the IEX Fee Proposal.[40]

The Commission received three comment letters on the IEX Order.[41] The Virtu Letter and HMA Letter 2 specifically applaud the amount of detail included in the IEX Fee Proposal. Specifically, the Virtu Letter states that ''[i]n significant detail, IEX provides data about three cost components: (1) Direct costs, such as servers, infrastructure, and monitoring; (2) enhancement initiative costs (*e.g.,* new functionality for IEX Data and increased capacity for the proprietary market data feeds . . .); and (3) personnel costs.' '' [42] HMA Letter 2 similarly commends the level of detail included in the IEX Fee Proposal and also highlights the disparate treatment by Commission Staff of exchange fee filings.[43] HMA Letter 2 provides three examples to support this assertion.[44] The Nasdaq Letter urges the Commission to approve the IEX Fee Proposal promptly and raises concern the questions asked by the Commission in the IEX Order imply that they are exercising rate making authority that they clearly do not possess. The Nasdaq Letter states that ''[i]f the Commission believes it has authority to conduct cost-plus ratemaking, the Administrative Procedure Act dictates that it must propose a rule for notice and comment and that its final rule must be prepared to withstand judicial scrutiny.'' [45] The Exchange agrees.

The Exchange believes exchanges, like all businesses, should be provided flexibility when allocating costs and resources they deem necessary to operate their business, including providing market data and access services. The Exchange notes that costs and resource allocations may vary from business to business and, likewise, costs and resource allocations may differ from exchange to exchange when it comes to providing market data and access services. It is a business decision that must be evaluated by each exchange as to how to allocate internal resources and what costs to incur internally or via third parties that it may deem necessary to support its business and its provision of market data and access services to market participants. An exchange's

[38] *See, e.g.,* Securities Exchange Act Release Nos. 93293 (October 12, 2021), 86 FR 57716 (October 18, 2021) (SR–PHLX–2021–58) (increasing several market data fees and adopting new market data fee without providing a cost based justification); 91339 (March 17, 2021), 86 FR 15524 (March 23, 2021) (SR-CboeBZX–2021–020) (increasing fees for a market data product while not providing a cost based justification for the increase); 93293 (October 21, 2021), 86 FR 57716 (October 18, 2021) (SR–PHLX–2021–058) (increasing fees for historical market data while not providing a cost based justification for the increase); 92970 (September 14, 2021), 86 FR 52261 (September 20, 2021) (SR-CboeBZX–2021–047) (adopting fees for a market data related product while not providing a cost based justification for the fees); and 89826 (September 10, 2021), 85 FR 57900 (September 16, 2021) (SR–CBOE–2020–086) (increasing connectivity fees without including a cost based justification).

[39] *See* Securities Exchange Act Release No. 93293 (October 12, 2021), 86 FR 57716 (October 18, 2021) (SR–PHLX–2021–58) (increasing several market data fees and adopting new market data fee without providing a cost based justification).

[40] *See* Securities Exchange Act Release No. 93883 (December 30, 2021), 87 FR 523 (January 5, 2021) (SR–IEX–2021–14) (the ''IEX Order'').

[41] *See* letters to Ms. Venessa A. Countryman, Secretary, Commission, from Douglas A. Cifu, Chief Executive Officer, Virtu Financial, Inc., dated January 26, 2022 (the ''Virtu Letter''), Tyler Gellasch, Executive Director, Healthy Markets Association (''HMA''), dated January 26, 2022 (the ''HMA Letter 2''), and Erika Moore, Vice President and Corporate Secretary, The Nasdaq Stock Market LLC, dated January 27, 2022 (the ''Nasdaq Letter'').

[42] *See* Virtu Letter at page 3, *id.*

[43] HMA previously expressed their ''worry that the Commission's process for reviewing and evaluating exchange filings may be inconsistently applied.'' *See* letter from Tyler Gellasch, Executive Director, HMA, to Hon. Gary Gensler, Chair, Commission, dated October 29, 2021 (commenting on SR-CboeEDGA–2021–017, SR-CboeBYX–2021–020, SR-Cboe-BZX–2021–047, SR-CboeEDGX–2021–030, SR–MIAX–2021–41, SR–PEARL–2021–45, and SR–EMERALD–2021–29 and stating that ''MIAX has repeatedly filed to change its connectivity fees in a way that will materially lower costs for many users, while increasing the costs for some of its heaviest of users. These filings have been withdrawn and repeatedly refiled. *Each time, however, the filings contain significantly greater information about who is impacted and how than other filings that have been permitted to take effect without suspension*'') (*emphasis added*) (''HMA Letter 1'').

[44] *See* HMA Letter 2 at 2–3. The Exchange has provided further examples to support HMA's assertion above. *See supra* note 39 and accompanying text.

[45] *See* Nasdaq Letter at page 13, *id.*

costs may also vary based on fees charged by third parties and periodic increases to those fees that may be outside of the control of an exchange.

To determine the Exchange's projected revenue associated with the proposed fees in the instant filing, the Exchange analyzed the number of Members and non-Members currently subscribing to the cToM data feeds and used a recent monthly billing cycle representative of 2021 monthly revenue. The Exchange also provided its baseline by analyzing June 2021, the monthly billing cycle prior to the proposed fees going into effect, and compared it to its expenses for that month. As discussed below, the Exchange does not believe it is appropriate to factor into its analysis projected or estimated future revenue growth or decline for purposes of these calculations, given the uncertainty of such projections due to the continually changing market data needs of market participants and potential increase in internal and third party expenses. The Exchange is presenting its revenue and expense associated with the proposed fees in this filing in a manner that is consistent with how the Exchange presents its revenue and expense in its Audited Unconsolidated Financial Statements. The Exchange's most recent Audited Unconsolidated Financial Statement is for 2020. However, since the revenue and expense associated with the proposed fees were not in place in 2020 or for the first six months of 2021, the Exchange believes its 2020 Audited Unconsolidated Financial Statement is not representative of its current total annualized revenue and costs associated with the proposed fees. Accordingly, the Exchange believes it is more appropriate to analyze the proposed fees utilizing its 2021 revenue and costs, as described herein, which utilize the same presentation methodology as set forth in the Exchange's previously-issued Audited Unconsolidated Financial Statements. Based on this analysis, the Exchange believes that the proposed fees are reasonable because they will allow the Exchange to recover its costs associated with providing services related to the proposed fees and not result in excessive pricing or supra-competitive profit. Since 2019, when the Exchange launched operations with Complex Order functionality, the Exchange has spent time and resources building out various Complex Order functionality in its System to provide better trading strategies and risk functionality for market participants in order to better compete with other exchanges' complex functionality and similar data products focused on complex orders.[46] The cToM data product allows market participants to better utilize the Exchange's Complex Order functionality by providing insights into the Exchange's Complex Order flow. The Exchange notes that no market participant ceased subscribing to the cToM feed since July 1, 2021, the date on which the fees became effective pursuant to the First Proposed Rule Change.

As outlined in more detail below, the Exchange projects that the final annualized expense for 2021 to provide cToM data to be $202,657 per annum or an average of $16,888 per month. The Exchange implemented the proposed fees on July 1, 2021 in the First Proposed Rule Change. For June 2021, prior to the proposed fees, Exchange Members and non-Members subscribed to a total of 14 cToM data feeds for which the Exchange charged $0, as it has for the past three years. This resulted in a loss of approximately $16,888 for that month. For the month of November 2021, which includes the proposed fees, Exchange Members and non-Members purchased 14 cToM data feeds, for which the Exchange charged approximately $17,500 for that month. This resulted in a profit of $612 for that month (a margin of approximately 3.5%). The Exchange cautions that this margin is likely to fluctuate from month to month based on the uncertainty of predicting how many cToM data feeds may be purchased from month to month as Members and non-Members are able to add and drop subscriptions at any time based on their own business decisions. This margin may also decrease due to the significant inflationary pressure on capital items that the Exchange needs to purchase to maintain the Exchange's technology and systems.[47] The Exchange has been subject to price increases upwards of 30% during the past year on network equipment due to supply chain shortages. This, in turn, results in higher overall costs for ongoing system maintenance, but also to purchase the items necessary to ensure ongoing system resiliency, performance, and determinism. These costs are expected to continue to go up as the U.S. economy continues to struggle with supply chain and inflation related issues.

Further, the Exchange chose to provide cToM data for free for the past three years to attract order flow and encourage market participants to experience the determinism and resiliency of the Exchange's trading systems and market data products. This resulted in the Exchange forgoing revenue it could have generated from assessing any fees. The Exchange could have sought to charge fees at the outset for the cToM data feed, but that could have served to discourage participation on the Exchange. Instead, the Exchange chose to provide a free exchange data product to the options industry, which resulted in no revenues for providing this service for three years. The Exchange now proposes to amend its fee structure to enable it to continue to maintain and improve its overall market and systems while also providing a highly reliable and deterministic trading system to the marketplace, complete with robust market data products, including cToM.

As mentioned above, the Exchange projects that the final annualized expense for 2021 to provide cToM data to be approximately $202,657 per annum or an average of $16,888 per month and that these costs are expected to increase not only due to anticipated significant inflationary pressure, but also periodic fee increases by third parties.[48] The Exchange notes that there are material costs associated with providing the infrastructure and headcount to fully-support access to the Exchange and various Exchange products. The Exchange incurs technology expense related to

[46] *See* Securities Exchange Act Release Nos. 79405 (November 28, 2016), 81 FR 87086 (December 2, 2016) (SR–MIAX–2016–44) (amendment to clarify the manner in which the System allocates contracts at the end of a Complex Auction); 80089 (February 22, 2017), 82 FR 12153 (February 28, 2017) (SR–MIAX–2017–06) (adopting the Complex MIAX Options Price Collar, an additional price protection feature); 81229 (July 27, 2017), 82 FR 36023 (August 2, 2017) (SR–MIAX–2017–34) (amendment to ensure price and trade protections apply to Complex Orders); 89085 (June 17, 2020), 85 FR 37719 (June 23, 2020) (SR–MIAX–2020–16) (adopting new order type, Complex Attributable Order).

[47] *See* ''Supply chain chaos is already hitting global growth. And it's about to get worse'', by Holly Ellyatt, CNBC, *available at https://www.cnbc.com/2021/10/18/supply-chain-chaos-is-hitting-global-growth-and-could-get-worse.html* (October 18, 2021); *and* ''There will be things that people can't get, at Christmas, White House warns'' by Jarrett Renshaw and Trevor Hunnicutt, Reuters, *available at https://www.reuters.com/world/us/americans-may-not-get-some-christmas-treats-white-house-officials-warn-2021-10-12/* (October 12, 2021).

[48] For example, on October 20, 2021, ICE Data Services announced a 3.5% price increase effective January 1, 2022 for most services. The price increase by ICE Data Services includes their Secure Financial Transaction Infrastructure (''SFTI'') network, which is relied on by a majority of market participants, including the Exchange. *See* email from ICE Data Services to the Exchange, dated October 20, 2021. The Exchange further notes that on October 22, 2019, the Exchange was notified by ICE Data Services that it was raising its fees charged to the Exchange by approximately 11% for the SFTI network.

establishing and maintaining Information Security services, enhanced network monitoring and customer reporting, as well as Regulation SCI mandated processes, associated with its network technology. While some of the expense is fixed, much of the expense is not fixed, and thus increases the cost to the Exchange to provide services associated with the proposed fees. For example, new Members to the Exchange may require the purchase of additional hardware to support those Members as well as enhanced monitoring and reporting of customer performance that the Exchange and its affiliates provide. Further, as the total number Members increases, the Exchange and its affiliates may need to increase their data center footprint and consume more power, resulting in increased costs charged by their third-party data center provider. Accordingly, the cost to the Exchange and its affiliates to provide services and products to its Members is not fixed and indeed is likely to increase rather than decrease over time. The Exchange believes the proposed fees are a reasonable attempt to offset a portion of the costs to the Exchange associated with providing certain Exchange products.

The Exchange only has four primary sources of revenue and cost recovery mechanisms to fund all of its operations: Transaction fees, access fees, regulatory fees, and market data fees. Accordingly, the Exchange must cover all of its expenses from these four primary sources of revenue and cost recovery mechanisms. Until recently, the Exchange has operated at a cumulative net annual loss since it launched operations in 2019.[49] This is a result of providing a low cost alternative to attract order flow and encourage market participants to experience the high determinism and resiliency of the Exchange's trading Systems. To do so, the Exchange chose to waive the fees for some non-transaction related services and market data products or provide them at a very marginal cost, which has not been profitable to the Exchange, but beneficial to the overall options industry. This resulted in the Exchange forgoing revenue it could have generated from assessing any amount of fees.

The Exchange believes that the proposed fees are fair and reasonable because they will not result in excessive pricing or supra-competitive profit, when comparing the total annual expense that the Exchange projects to incur in connection with providing these services versus the total annual revenue that the Exchange projects to collect in connection with services associated with the proposed fees. As mentioned above, for 2021,[50] the total annual expense for providing the services associated with the proposed fees is projected to be approximately $202,657, or approximately $16,888 per month. This projected total annual expense is comprised of the following, all of which are directly related to the services associated with the proposed fees: (1) Third-party expense, relating to fees paid by the Exchange to third-parties for certain products and services; and (2) internal expense, relating to the internal costs of the Exchange to provide the services associated with the proposed fees.[51] As noted above, the Exchange believes it is more appropriate to analyze the proposed fees utilizing its 2021 revenue and costs, which utilize the same presentation methodology as set forth in the Exchange's previously-issued Audited Unconsolidated Financial Statements.[52] The $202,657 projected total annual expense is directly related to the services associated with the proposed fees, and not any other product or service offered by the Exchange. It does not include general costs of operating matching engines and other trading technology. No expense amount was allocated twice.

As discussed above, the Exchange conducted an extensive cost review in which the Exchange analyzed nearly every expense item in the Exchange's general expense ledger (this includes over 150 separate and distinct expense items) to determine whether each such expense relates to the services associated with the proposed fees, and, if such expense did so relate, what portion (or percentage) of such expense actually supports those services, and thus bears a relationship that is, ''in nature and closeness,'' directly related to those services. In performing this calculation, the Exchange considered other services and to which the expense may be applied and how much of the expense is directly or indirectly utilized in providing those other services. The sum of all such portions of expenses represents the total cost of the Exchange to provide services associated with the proposed fees.

External Expense Allocations

For 2021, total third-party expense, relating to fees paid by the Exchange to third-parties for certain products and services for the Exchange to be able to provide the services associated with the proposed fees, is projected to be $4,160. This includes, but is not limited to, a portion of the fees paid to: (1) Equinix, for data center services, for the primary, secondary, and disaster recovery locations of the Exchange's trading system infrastructure; (2) Zayo Group Holdings, Inc. (''Zayo'') for network services (fiber and bandwidth products and services) linking the Exchange's office locations in Princeton, New Jersey and Miami, Florida, to all data center locations; and (3) various other hardware and software providers (including Dell and Cisco, which support the production environment in which Members connect to the network to trade, receive market data, etc.).

For clarity, the Exchange took a conservative approach in determining the expense and the percentage of that expense to be allocated to providing the services associated with the proposed fees. Only a portion of all fees paid to such third-parties is included in the third-party expense described herein, and no expense amount is allocated twice. Accordingly, the Exchange does not allocate its entire information technology and communication costs to the services associated with the proposed fees. Further, the Exchange notes that, with respect to the expenses included herein, those expenses only cover the MIAX market; expenses associated with MIAX Pearl for its options and equities markets and MIAX, are accounted for separately and are not included within the scope of this filing. As noted above, the percentage allocations used in this proposed rule change may differ from past filings from the Exchange or its affiliates due to, among other things, changes in expenses charged by third-parties,

[49] The Exchange has incurred a cumulative loss of $22 million since its inception in 2019 to 2020, the last year for which the Exchange's Form 1 data is available. *See* Exchange's Form 1/A, Application for Registration or Exemption from Registration as a National Securities Exchange, filed July 28, 2021, *available at https://sec.report/Document/9999999997-21-004557/*.

[50] The Exchange has not yet finalized its 2021 year end results.

[51] The percentage allocations used in this proposed rule change may differ from past filings from the Exchange or its affiliates due to, among other things, changes in expenses charged by third-parties, adjustments to internal resource allocations, and different system architecture of the Exchange as compared to its affiliates.

[52] For example, the Exchange previously noted that all third-party expense described in its prior fee filing was contained in the information technology and communication costs line item under the section titled ''Operating Expenses Incurred Directly or Allocated From Parent,'' in the Exchange's 2019 Form 1 Amendment containing its financial statements for 2018. *See* Securities Exchange Act Release No. 87877 (December 31, 2019), 85 FR 738 (January 7, 2020) (SR–EMERALD–2019–39). Accordingly, the third-party expense described in this filing is attributed to the same line item for the Exchange's 2021 Form 1 Amendment, which will be filed in 2022.

adjustments to internal resource allocations, and different system architecture of the Exchange as compared to its affiliates. Further, as part its ongoing assessment of costs and expenses, the Exchange recently conducted a periodic thorough review of its expenses and resource allocations, which, in turn, resulted in a revised percentage allocations in this filing.

The Exchange believes it is reasonable to allocate such third-party expense described above towards the total cost to the Exchange to provide the services associated with the proposed fees. In particular, the Exchange believes it is reasonable to allocate the identified portion of the Equinix expense because Equinix operates the data centers (primary, secondary, and disaster recovery) that host the Exchange's network infrastructure. This includes, among other things, the necessary storage space, which continues to expand and increase in cost, power to operate the network infrastructure, and cooling apparatuses to ensure the Exchange's network infrastructure maintains stability. Without these services from Equinix, the Exchange would not be able to operate and support the network and provide the cToM product associated with the proposed fees to its Members, non-Members and their customers. The Exchange did not allocate all of the Equinix expense toward the cost of providing the cToM product associated with the proposed fees, only that portion which the Exchange identified as being specifically mapped to providing the cToM product associated with the proposed fees. According to the Exchange's calculations, it allocated approximately 0.20% of the total applicable Equinix expense to providing the services associated with the proposed fees. The Exchange believes this allocation is reasonable because it represents the Exchange's actual cost to provide the cToM product associated with the proposed fees, and not any other service, as supported by its cost review.[53]

The Exchange believes it is reasonable to allocate the identified portion of the Zayo expense because Zayo provides the internet, fiber and bandwidth connections with respect to the network, linking the Exchange with its affiliates, MIAX Pearl and MIAX, as well as the data center and disaster recovery locations. As such, all of the trade data, including the billions of messages each day per exchange, flow through Zayo's infrastructure over the Exchange's network. Without these services from Zayo, the Exchange would not be able to operate and support the network and provide the cToM data associated with the proposed fees. The Exchange did not allocate all of the Zayo expense toward the cost of providing the cToM data associated with the proposed fees, only the portion which the Exchange identified as being specifically mapped to providing the cToM data associated with the proposed fees. According to the Exchange's calculations, it allocated approximately 0.20% of the total applicable Zayo expense to providing the services associated with the proposed fees. The Exchange believes this allocation is reasonable because it represents the Exchange's actual cost to provide the cToM data associated with the proposed fees, and not any other service, as supported by its cost review.[54]

The Exchange did not allocate any expense associated with the proposed fees towards SFTI and various other service providers' (including Thompson Reuters, NYSE, Nasdaq, and Internap) because the MIAX Emerald architecture takes advantage of an advance in design to eliminate the need for a market data distribution gateway layer. The computation and dissemination via an API is done solely within the match engine environment and is then delivered via the Member and non-Member connectivity infrastructure. This architecture delivers a market data system that is more efficient both in cost and performance. Accordingly, the Exchange determined not to allocate any expense associated with SFTI and various other service providers.

The Exchange believes it is reasonable to allocate the identified portion of the other hardware and software provider expense because this includes costs for dedicated hardware licenses for switches and servers, as well as dedicated software licenses for security monitoring and reporting across the network. Without this hardware and software, the Exchange would not be able to operate and support the network and provide cToM data to its Members, non-Members and their customers. The Exchange did not allocate all of the hardware and software provider expense toward the cost of providing the cToM data associated with the proposed fees, only the portions which the Exchange identified as being specifically mapped to providing the cToM data associated with the proposed fees. According to the Exchange's calculations, it allocated approximately 0.20% of the total applicable hardware and software provider expense to providing the services associated with the proposed fees. The Exchange believes this allocation is reasonable because it represents the Exchange's actual cost to provide the cToM data associated with the proposed fees.[55]

Internal Expense Allocations

For 2021, total projected internal expenses relating to the Exchange providing the cToM data associated with the proposed fees, is projected to be $198,497. This includes, but is not limited to, costs associated with: (1) Employee compensation and benefits for full-time employees that support the cToM data product associated with the proposed fees, including staff in network operations, trading operations, development, system operations, and business that support those employees and functions; (2) depreciation and amortization of hardware and software used to provide the cToM data product associated with the proposed fees, including equipment, servers, cabling, purchased software and internally developed software used in the production environment to support the network for trading; and (3) occupancy costs for leased office space for staff that provide the cToM data associated with the proposed fees. The breakdown of these costs is more fully-described below.

For clarity, and as stated above, the Exchange took a conservative approach in determining the expense and the percentage of that expense to be allocated to providing services in connection with the proposed fees. Only a portion of all such internal expenses are included in the internal expense herein, and no expense amount is allocated twice. Accordingly, the Exchange does not allocate its entire costs contained in those items to the cToM data associated with the proposed fees. This may result in the Exchange under allocating an expense to the provision of access services in connection with the proposed fees and such expenses may actually be higher or increase above what the Exchange utilizes within this proposal. Further, as part its ongoing assessment of costs and expenses (described above), the Exchange recently conducted a periodic

[53] As noted above, the percentage allocations used in this proposed rule change may differ from past filings from the Exchange or its affiliates due to, among other things, changes in expenses charged by third-parties, adjustments to internal resource allocations, and different system architecture of the Exchange as compared to its affiliates. Again, as part its ongoing assessment of costs and expenses, the Exchange recently conducted a periodic thorough review of its expenses and resource allocations which, in turn, resulted in a revised percentage allocations in this filing.

[54] *Id.*

[55] *Id.*

thorough review of its expenses and resource allocations which, in turn, resulted in a revised percentage allocations in this filing.

The Exchange believes it is reasonable to allocate such internal expense described above towards the total cost to the Exchange to provide the cToM data associated with the proposed fees. In particular, the Exchange's employee compensation and benefits expense relating to providing the cToM data associated with the proposed fees is projected to be approximately $185,002, which is only a portion of the $9.74 million total projected expense for employee compensation and benefits. The Exchange believes it is reasonable to allocate the identified portion of such expense because this includes the time spent by employees of several departments, including Technology, Back Office, Systems Operations, Networking, Business Strategy Development (who create the business requirement documents that the Technology staff use to develop network features, products and enhancements), and Trade Operations. As part of the extensive cost review conducted by the Exchange, the Exchange reviewed the amount of time spent by nearly every employee on matters relating to cToM. Without these employees, the Exchange would not be able to provide the cToM product to its Members, non-Members and their customers. The Exchange did not allocate all of the employee compensation and benefits expense toward the cost of the cToM product, only the portion which the Exchange identified as being specifically mapped to providing the cToM product associated with the proposed fees. According to the Exchange's calculations, it allocated approximately 2.0% of the total applicable employee compensation and benefits expense to providing the services associated with the proposed fees. The Exchange believes this allocation is reasonable because it represents the Exchange's actual cost to provide the cToM data associated with the proposed fees, and not any other service, as supported by its cost review.[56]

The Exchange's depreciation and amortization expense relating to providing the cToM data associated with the proposed fees is projected to be $3,635, which is only a portion of the $1.9 million total projected expense for depreciation and amortization. The Exchange believes it is reasonable to allocate the identified portion of such expense because such expense includes the actual cost of the computer equipment, such as dedicated servers, computers, laptops, monitors, information security appliances and storage, and network switching infrastructure equipment, including switches and taps that were purchased to operate and support the network and provide the cToM product. Without this equipment, the Exchange would not be able to operate the network and provide the cToM product to its Members, non-Members and their customers. The Exchange did not allocate all of the depreciation and amortization expense toward the cost of providing the cToM product, only the portion which the Exchange identified as being specifically mapped to providing the cToM product. According to the Exchange's calculations, it allocated approximately 0.20% of the total applicable depreciation and amortization expense to providing the services associated with the proposed fees, as this product would not be possible without relying on such. The Exchange believes this allocation is reasonable because it represents the Exchange's actual cost to provide the cToM product associated with the proposed fees, and not any other service, as supported by its cost review.[57]

The Exchange's occupancy expense relating to providing the cToM product associated with the proposed fees is projected to be $9,860, which is only a portion of the $0.60 million total projected expense for occupancy. The Exchange believes it is reasonable to allocate the identified portion of such expense because such expense represents the portion of the Exchange's cost to rent and maintain a physical location for the Exchange's staff who operate and support the network, including providing the cToM product. This amount consists primarily of rent for the Exchange's Princeton, New Jersey office, as well as various related costs, such as physical security, property management fees, property taxes, and utilities. The Exchange operates its Network Operations Center (''NOC'') and Security Operations Center (''SOC'') from its Princeton, New Jersey office location. A centralized office space is required to house the staff that operates and supports the network and Exchange products. The Exchange currently has approximately 200 employees. Approximately two-thirds of the Exchange's staff are in the Technology department, and the majority of those staff have some role in the operation and performance of the services associated with the proposed fees. Accordingly, the Exchange believes it is reasonable to allocate the identified portion of its occupancy expense because such amount represents the Exchange's actual cost to house the equipment and personnel who operate and support the Exchange's network infrastructure and the market data services associated with the proposed fees. The Exchange did not allocate all of the occupancy expense toward the cost of providing the market data services associated with the proposed fees, only the portion which the Exchange identified as being specifically mapped to operating and supporting the network. According to the Exchange's calculations, it allocated approximately 2.0% of the total applicable occupancy expense to providing the services associated with the proposed fees. The Exchange believes this allocation is reasonable because it represents the Exchange's cost to provide the market data services associated with the proposed fees, and not any other service, as supported by its cost review.[58]

Based on the above, the Exchange believes that its provision of market data services associated with the proposed fees will not result in excessive pricing or supra-competitive profit. As discussed above, the Exchange projects that its annualized expense for 2021 to provide the cToM data associated with the proposed fees is projected to be approximately $202,657, or approximately $16,888 per month on average. The Exchange implemented the proposed fees on July 1, 2021 in the First Proposed Rule Change. For June 2021, prior to the proposed fees, Members and non-Members subscribed to a total of 14 cToM data feeds, for which the Exchange charged $0, for the past three years. This resulted in a month over month loss of $16,888. For the month of November 2021, which includes the proposed fees, Members and non-Members subscribed to 14 cToM data feeds, for which the Exchange charged approximately $17,500 for that month. This resulted in a profit of $612 for that month (a margin of approximately 3.5%). The Exchange believes this margin will allow it to begin to recoup its expenses and continue to invest in its technology infrastructure. Therefore, the Exchange also believes that this proposed margin is reasonable because it represents a reasonable rate of return.

Again, the Exchange cautions that this margin is likely to fluctuate from month to month based in the uncertainty of predicting how many market data feeds

[56] *Id.*

[57] *Id.*

[58] *Id.*

may be purchased from month to month as Members and non-Members are free to add and drop subscriptions at any time based on their own business decisions. Notwithstanding that the revenue (and profit margin) may vary from month to month due to changes in subscriptions and to changes to the Exchange's expenses, the number of subscriptions has not materially changed over previous months. Consequently, the Exchange believes that the months it has used as a baseline to perform its assessment are representative of reasonably anticipated costs and expenses. This margin may also decrease due to the significant inflationary pressure on capital items that it needs to purchase to maintain the Exchange's technology and systems. Accordingly, the Exchange believes its total projected revenue for the providing the market data services associated with the proposed fees will not result in excessive pricing or supra-competitive profit.

The Exchange believes that conducting the above analysis on a per month basis is reasonable as the revenue generated from access services subject to the proposed fee generally remains static from month to month. The Exchange also conducted the above analysis on a per month basis to comply with the Guidance which requires a baseline analysis to assist in determining whether the proposal generates a supra-competitive profit. This monthly analysis was also provided in response to comment received on prior submissions of this proposed rule change.

The Exchange reiterates that it only has four primary sources of revenue and cost recovery mechanisms: Transaction fees, access fees, regulatory fees, and market data fees. Accordingly, the Exchange must cover all of its expenses from these four primary sources of revenue and cost recovery mechanisms. As a result, each of these fees cannot be ''flat'' and cover only the expenses directly related to the fee that is charged. The above revenue and associated profit margin therefore are not solely intended to cover the costs associated with providing services subject to the proposed fees. Moreover, as noted above, because the Exchange was previously offering the cToM data feed at no cost, the provision of the feed during the time in which it generated no revenue was being subsidized by other fees charged by the Exchange. The Exchange believes establishing a separate fee for the cToM feed is therefore reasonable and equitable so that the provision of the cToM data feed is no longer subsidized by other fees less directly related to providing cToM. Instead, the cToM feed will be supported primarily through fees charged only to users who choose to subscribe to cToM.

The Exchange believes it is reasonable, equitable and not unfairly discriminatory to allocate the respective percentages of each expense category described above towards the total cost to the Exchange of operating and supporting the network, including providing the market data services associated with the proposed fees because the Exchange performed a line-by-line item analysis of nearly every expense of the Exchange, and has determined the expenses that directly relate to providing market data services to the Exchange. Further, the Exchange notes that, without the specific third-party and internal expense items listed above, the Exchange would not be able to provide the market data services associated with the proposed fees to its Members, non-Members and their customers. Each of these expense items, including physical hardware, software, employee compensation and benefits, occupancy costs, and the depreciation and amortization of equipment, have been identified through a line-by-line item analysis to be integral to providing market data services. The proposed fees are intended to recover the costs of providing cToM data. Accordingly, the Exchange believes that the proposed fees are fair and reasonable because they do not result in excessive pricing or supra-competitive profit, when comparing the actual costs to the Exchange versus the projected annual revenue from the proposed fees.

No market participant is required by any rule or regulation to utilize the Exchange's Complex Order functionality or subscribe to the cToM data feed. Further, unlike orders on the Exchange's Simple Order Book, Complex Orders are not protected and will never trade through Priority Customer [59] orders, thus protecting the priority that is established in the Simple Order Book.[60] Additionally, unlike the continuous quoting requirements of Market Makers in the simple order market, there are no continuous quoting requirements respecting Complex Orders. It is a business decision whether market participants utilize Complex Order strategies on the Exchange and whether to purchase cToM data to help effect those strategies.

The Proposed Fees Are Reasonable When Compared to the Fees of Other Options Exchanges With Similar Market Share

The Exchange does not have visibility into other options exchanges' costs to provide market data or their fee markup over those costs, and therefore cannot use other exchange's market data fees as a benchmark to determine a reasonable markup over the costs of providing market data. Nevertheless, the Exchange believes the other exchanges' market data fees are useful examples of alternative approaches to providing and charging for market data. To that end, the Exchange believes the proposed pricing is reasonable because the proposed rates are similar to or less than the fees charged by other options exchanges for similar data products.[61]

Until recently, the Exchange has operated at a cumulative net annual loss since it launched operations in 2019.[62] This is a result of providing a low cost alternative to attract order flow and encourage market participants to experience the high determinism and resiliency of the Exchange's trading Systems. To do so, the Exchange chose to waive the fees for some non-transaction related services and Exchange products (including the cToM data feed) or provide them at a very marginal cost, which was not profitable to the Exchange. This resulted in the Exchange forgoing revenue it could have generated from assessing any fees or higher fees. The Exchange could have sought to charge higher fees at the outset, but that could have served to discourage participation on the Exchange. Instead, the Exchange chose to provide a low cost exchange alternative to the options industry which resulted in lower initial revenues. An example of this is cToM, for which the Exchange only now seeks to adopt fees at a level similar to or lower than those of other options exchanges.

Since the Exchange initially established the cToM data product when it launched trading operations on March 1, 2019, all Exchange Members and non-Members have had the ability to receive the Exchange's cToM data free of charge for the past three years.[63] Since 2019, when the Exchange launched operations with Complex

[59] The term ''Priority Customer'' means a person or entity that (i) is not a broker or dealer in securities and (ii) does not place more than 390 orders in listed options per day on average during a calendar month for its own beneficial accounts(s). The term ''Priority Customer Order'' means an order for the account of a Priority Customer. *See* Exchange Rule 100.

[60] The ''Simple Order Book'' is the Exchange's regular electronic book of orders and quotes. *See* Exchange Rule 518(a)(5).

[61] *See supra* notes 20, 21 and 22.

[62] *See supra* note 47.

[63] *See supra* note 15.

Order functionality, the Exchange has spent time and resources building out various Complex Order functionality in its System to provide better trading strategies and risk functionality for market participants in order to better compete with other exchanges' complex functionality and similar data products focused on complex orders.[64] The cToM data product allows market participants to better utilize the Exchange's Complex Order functionality by providing insights into the Exchange's Complex Order flow. The Exchange currently has 14 subscribers (12 Members and 2 non-Members) for its cToM data product. None of these subscribers has paid a specific fee to receive cToM data (other than the five months in which the First, Second and Third Proposed Rule Changes were in effect) but has received the benefit of the Exchange building out its Complex Order functionality to better compete with other exchanges complex functionality. The Exchange notes that no market participant ceased subscribing to the cToM feed since July 1, 2021, the date on which the fees became effective when established in the First Proposed Rule Change.

The Proposed Pricing Is Not Unfairly Discriminatory and Provides for the Equitable Allocation of Fees, Dues, and Other Charges

The Exchange believes that it is reasonable, equitable and not unfairly discriminatory to assess Internal Distributors fees that are less than the fees assessed for External Distributors for subscriptions to the cToM data feed because Internal Distributors have limited, restricted usage rights to the market data, as compared to External Distributors, which have more expansive usage rights. All Members and non-Members that determine to receive any market data feed of the Exchange (or its affiliates, MIAX Pearl and MIAX), must first execute, among other things, the MIAX Exchange Group Exchange Data Agreement (the ''Exchange Data Agreement'').[65] Pursuant to the Exchange Data Agreement, Internal Distributors are restricted to the ''internal use'' of any market data they receive. This means that Internal Distributors may only distribute the Exchange's market data to the recipient's officers and employees and its affiliates.[66] External Distributors may distribute the Exchange's market data to persons who are not officers, employees or affiliates of the External Distributor,[67] and may charge their own fees for the redistribution of such market data. Accordingly, the Exchange believes it is fair, reasonable and not unfairly discriminatory to assess External Distributors a higher fee for the Exchange's market data products as External Distributors have greater usage rights to commercialize such market data and can adjust their own fee structures if necessary. The Exchange also utilizes more resources to support External Distributors versus Internal Distributors, as External Distributors have reporting and monitoring obligations that Internal Distributors do not have, thus requiring additional time and effort of Exchange staff. The Exchange believes the proposed cToM fees are equitable and not unfairly discriminatory because the fee level results in a reasonable and equitable allocation of fees amongst subscribers for similar services, depending on whether the subscriber is an Internal or External Distributor. Moreover, the decision as to whether or not to purchase market data is entirely optional to all market participants. Potential purchasers are not required to purchase the market data, and the Exchange is not required to make the market data available. Purchasers may request the data at any time or may decline to purchase such data. The allocation of fees among users is fair and reasonable because, if market participants determine not to subscribe to the data feed, firms can discontinue their use of the cToM data.

Further, the Exchange believes that the proposal is equitable and not unfairly discriminatory because the proposed cToM fees will apply to all market participants of the Exchange on a uniform basis. The Exchange also notes that the proposed monthly cToM fees for Internal and External Distributors are the same prices that the Exchange charges for its ToM data product.

The Exchange believes the proposed change to delete certain text from Section (6)(a) of the Fee Schedule promotes just and equitable principles of trade and removes impediments to and perfects the mechanism of a free and open market and a national market system because the proposed change is a non-substantive edit to the Fee Schedule to remove unnecessary text. The Exchange believes that this proposed change will provide greater clarity to Members and the public regarding the Exchange's Fee Schedule and that it is in the public interest for the Fee Schedule to be accurate and concise so as to eliminate the potential for confusion.

B. Self-Regulatory Organization's Statement on Burden on Competition

The Exchange does not believe that the proposed rule change will result in any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act.

Intra-Market Competition

The Exchange believes the proposed fees will not result in any burden on intra-market competition that is not necessary or appropriate in furtherance of the purposes of the Act because the proposed fees will allow the Exchange to recoup some of its costs in providing cToM to market participants. As described above, the Exchange has operated at a cumulative net annual loss since it launched operations in 2019[68] due to providing a low cost alternative to attract order flow and encourage market participants to experience the high determinism and resiliency of the Exchange's trading Systems. To do so, the Exchange chose to waive the fees for some non-transaction related services and Exchange products or provide them at a very marginal cost, which was not profitable to the Exchange. This resulted in the Exchange forgoing revenue it could have generated from assessing any fees or higher fees. The Exchange could have sought to charge higher fees at the outset, but that could have served to discourage participation on the Exchange. Instead, the Exchange chose to provide a low cost exchange alternative to the options industry which resulted in lower initial revenues. An example of this is cToM, for which the Exchange only now seeks to adopt fees at a level similar to or lower than those of other options exchanges.

Since the Exchange initially launched operations with the cToM data product in 2019, all Exchange Members and non-Members have had the ability to receive the Exchange's cToM data free of charge for the past three years.[69] Since 2019, when the Exchange adopted Complex Order functionality, the Exchange has spent time and resources building out various Complex Order

[64] *See* Securities Exchange Act Release Nos. 85345 (March 18, 2019), 84 FR 10848 (March 22, 2019) (SR–EMERALD–2019–13) (adopting complex stock-option order functionality); 85346 (March 18, 2019), 84 FR 10854 (March 22, 2019) (SR–EMERALD–2019–14) (adopting additional price protection during a Complex Auction and the Complex Liquidity Exposure Process to provide additional price discovery).

[65] *See* Exchange Data Agreement, available at *https://miaxweb2.pairsite.com/sites/default/files/page-files/MIAX_Exchange_Group_Data_Agreement_09032020.pdf.*

[66] *See id.*

[67] *See id.*

[68] *See supra* note 47.

[69] *See supra* note 15.

functionality in its System to provide better trading strategies and risk functionality for market participants in order to better compete with other exchanges' complex functionality and similar data products focused on complex orders.[70] The Exchange now seeks to recoup its costs for providing cToM to market participants and believes the proposed fees will not result in excessive pricing or supra-competitive profit.

Inter-Market Competition

The Exchange also does not believe the proposed fees would cause any unnecessary or in appropriate burden on intermarket competition as other exchanges are free to introduce their own comparable data product and lower their prices to better compete with the Exchange's offering. The Exchange does not believe the proposed rule change would cause any unnecessary or inappropriate burden on inter-market competition. Particularly, the proposed product and fees apply uniformly to any purchaser, in that it does not differentiate between subscribers that purchase cToM. The proposed fees are set at a modest level that would allow any interested Member or non-Member to purchase such data based on their business needs.

The Exchange does not believe that the proposed rule change to make a minor, non-substantive edit to Section (6)(a) of the Fee Schedule by deleting unnecessary text will result in any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act. This proposed rule change is not being made for competitive reasons, but rather is designed to remedy a minor non-substantive issue and will provide added clarity to the Fee Schedule. The Exchange believes that it is in the public interest for the Fee Schedule to be accurate and concise so as to eliminate the potential for confusion on the part of market participants. In addition, the Exchange does not believe the proposal will impose any burden on inter-market competition as the proposal does not address any competitive issues and is intended to protect investors by providing further transparency regarding the Exchange's Fee Schedule.

Regrettably, the Exchange believes that the application of the Guidance to date has adversely affected inter-market competition by impeding the ability of smaller, low cost exchanges to adopt or increase fees for their market data and access services (including connectivity and port products and services). Since the adoption of the Guidance, and even more so recently, it has become harder, particularly for smaller, low cost exchanges, to adopt or increase fees to generate revenue necessary to invest in systems, provide innovative trading products and solutions, and improve competitive standing to the benefit of the affected exchanges' market participants. Although the Guidance has served an important policy goal of improving disclosures in proposed rule changes and requiring exchanges to more clearly justify that their market data and access fee proposals are fair and reasonable, it has also been inconsistently applied and therefore negatively impacted exchanges, and particularly many smaller, low cost exchanges, that seek to adopt or increase fees despite providing enhanced disclosures and rationale to support their proposed fee changes.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others

Written comments were neither solicited nor received.

III. Suspension of the Proposed Rule Change

Pursuant to Section 19(b)(3)(C) of the Act,[71] at any time within 60 days of the date of filing of a proposed rule change pursuant to Section 19(b)(1) of the Act,[72] the Commission summarily may temporarily suspend the change in the rules of a self-regulatory organization (''SRO'') if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act. As discussed below, the Commission believes a temporary suspension of the proposed rule change is necessary and appropriate to allow for additional analysis of the proposed rule change's consistency with the Act and the rules thereunder.

As the Exchange further details above, the Exchange first filed a proposed rule change proposing fee changes as proposed herein on June 30, 2021, with the proposed fee changes effective beginning July 1, 2021. That proposal, EMERALD–2021–21, was published for comment in the **Federal Register** on July 15, 2021.[73] On August 27, 2021, pursuant to Section 19(b)(3)(C) of the Act, the Commission: (1) Temporarily suspended the proposed rule change; and (2) instituted proceedings to determine whether to approve or disapprove the proposal.[74] On September 30, 2021, the Exchange withdrew the proposed rule change,[75] and filed two other proposed rule changes proposing fee changes as proposed herein,[76] which were each also subsequently withdrawn. The instant filing is substantially similar.[77]

When exchanges file their proposed rule changes with the Commission, including fee filings like the Exchange's present proposal, they are required to provide a statement supporting the proposal's basis under the Act and the rules and regulations thereunder applicable to the exchange.[78] The instructions to Form 19b–4, on which exchanges file their proposed rule changes, specify that such statement ''should be sufficiently detailed and specific to support a finding that the proposed rule change is consistent with [those] requirements.'' [79]

Among other things, exchange proposed rule changes are subject to Section 6 of the Act, including Sections 6(b)(4), (5), and (8), which requires the rules of an exchange to (1) provide for the equitable allocation of reasonable fees among members, issuers, and other persons using the exchange's facilities;[80] (2) perfect the mechanism of a free and open market and a national market system, protect investors and the public interest, and not be designed to permit unfair discrimination between customers, issuers, brokers, or dealers;[81] and (3) not impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act.[82]

In temporarily suspending the Exchange's fee change, the Commission intends to further consider whether the proposed fees for the cToM market data feed are consistent with the statutory requirements applicable to a national securities exchange under the Act. In particular, the Commission will consider whether the proposed rule change satisfies the standards under the

[70] *See supra* note 62.

[71] 15 U.S.C. 78s(b)(3)(C).

[72] 15 U.S.C. 78s(b)(1).

[73] *See supra* note 5, and accompanying text.

[74] *See* Securities Exchange Act Release No. 92789, 86 FR 49364 (September 2, 2021) (''OIP'').

[75] *See* Securities Exchange Act Release No. 93471 (October 29, 2021), 86 FR 60947 (November 4, 2021).

[76] *See* Securities Exchange Act Release Nos. 93427 (October 26, 2021), 86 FR 60310 (November 1, 2021); 93811 (December 17, 2021), 86 FR 73051 (December 23, 2021).

[77] *See* OIP, *supra* note 74.

[78] *See* 17 CFR 240.19b–4 (Item 3 entitled ''Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change'').

[79] *Id.*

[80] 15 U.S.C. 78f(b)(4).

[81] 15 U.S.C. 78f(b)(5).

[82] 15 U.S.C. 78f(b)(8).

Act and the rules thereunder requiring, among other things, that an exchange's rules provide for the equitable allocation of reasonable fees among members, issuers, and other persons using its facilities; not permit unfair discrimination between customers, issuers, brokers or dealers; and do not impose any burden on competition not necessary or appropriate in furtherance of the purposes of the Act.[83]

Therefore, the Commission finds that it is appropriate in the public interest, for the protection of investors, and otherwise in furtherance of the purposes of the Act, to temporarily suspend the proposed rule change.[84]

IV. Proceedings To Determine Whether To Approve or Disapprove the Proposed Rule Change

In addition to temporarily suspending the proposal, the Commission also hereby institutes proceedings pursuant to Sections 19(b)(3)(C)[85] and 19(b)(2)(B) of the Act[86] to determine whether the proposed rule change should be approved or disapproved. Institution of such proceedings is appropriate at this time in view of the legal and policy issues raised by the proposed rule change. Institution of proceedings does not indicate that the Commission has reached any conclusions with respect to any of the issues involved. Rather, the Commission seeks and encourages interested persons to provide additional comment on the proposed rule change to inform the Commission's analysis of whether to disapprove the proposed rule change.

Pursuant to Section 19(b)(2)(B) of the Act,[87] the Commission is providing notice of the grounds for possible disapproval under consideration. The Commission is instituting proceedings to allow for additional analysis of whether the Exchange has sufficiently demonstrated how the proposed rule change is consistent with Sections 6(b)(4),[88] 6(b)(5),[89] and 6(b)(8)[90] of the Act. Section 6(b)(4) of the Act requires that the rules of a national securities exchange provide for the equitable allocation of reasonable dues, fees, and other charges among its members and issuers and other persons using its facilities. Section 6(b)(5) of the Act requires that the rules of a national securities exchange be designed, among other things, to promote just and equitable principles of trade, to remove impediments to and perfect the mechanism of a free and open market and a national market system and, in general, to protect investors and the public interest, and not be designed to permit unfair discrimination between customers, issuers, brokers, or dealers. Section 6(b)(8) of the Act requires that the rules of a national securities exchange not impose any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act.

The Commission asks that commenters address the sufficiency of the Exchange's statements in support of the proposal, which are set forth above, in addition to any other comments they may wish to submit about the proposed rule change. In particular, the Commission seeks comment on the following aspects of the proposal and asks commenters to submit data where appropriate to support their views:

1. *Cost Estimates and Allocation.* The Exchange states that it is not asserting that the proposed fees are constrained by competitive forces, but rather sets forth a ''cost-plus model,'' employing a ''conservative methodology'' that ''strictly considers only those costs that are most clearly directly related to the provision and maintenance of cToM data . . . .''[91] Setting forth its costs in providing the cToM data product, and as summarized in greater detail above, MIAX Emerald projects $202,657 in aggregate annual estimated costs for 2021 as the sum of: (1) $4,160 in third-party expenses paid in total to Equinix (0.20% of the total applicable expense) for data center services; Zayo Group Holdings for network services (0.20% of the total applicable expense); and various other hardware and software providers (0.20% of the total applicable expense) supporting the production environment, and (2) $198,497 in internal expenses, allocated to (a) employee compensation and benefit costs ($185,002, approximately 2.0% of the Exchange's total applicable employee compensation and benefits expense); (b) depreciation and amortization ($3,635, approximately 0.20% of the Exchange's and total applicable depreciation and amortization expense); and (c) occupancy costs ($9,860, approximately 2.0% of the Exchange's total applicable occupancy expense). Do commenters believe that the Exchange has provided sufficient detail about how it determined which costs are most clearly directly associated with providing and maintaining the cToM data product? The Exchange describes a ''proprietary'' process involving all Exchange department heads, including the finance department and numerous meetings between the Exchange's Chief Information Officer, Chief Financial Officer, Head of Strategic Planning and Operations, Chief Technology Officer, various members of the Legal Department, and other group leaders, but does not specify further what principles were applied in making these determinations or arriving at particular allocations. Do commenters believe further explanation is necessary? For employee compensation and benefit costs, for example, the Exchange calculated an allocation of employee time in several departments, including Technology, Back Office, Systems Operations, Networking, Business Strategy Development, and Trade Operations, but does not provide the job titles and salaries of persons whose time was accounted for, nor explain the methodology used to determine how much of an employee's time is devoted to that specific activity. What are commenters' views on whether the Exchange has provided sufficient detail on the identity and nature of services provided by third parties? Across all of the Exchange's projected costs, what are commenters' views on whether the Exchange has provided sufficient detail on the elements that go into market data costs, including how shared costs are allocated and attributed to market data expenses, to permit an independent review and assessment of the reasonableness of purported cost-based fees and the corresponding profit margin thereon? Should the Exchange be required to identify what Exchange products or services the remaining percentage of un-allocated expenses are attributable to (*e.g.,* what products or services are associated with the approximately 99.80% of applicable depreciation and amortization expenses that MIAX Emerald does *not* allocate to the proposed fees)? Do commenters believe that the costs projected for 2021 are generally representative of expected costs going forward (to the extent commenters consider 2021 to be a typical or atypical year), or should an exchange present an estimated range of costs with an explanation of how profit margins could vary along the range of

[83] *See* 15 U.S.C. 78f(b)(4), (5), and (8), respectively.

[84] For purposes of temporarily suspending the proposed rule change, the Commission has considered the proposed rule's impact on efficiency, competition, and capital formation. *See* 15 U.S.C. 78c(f).

[85] 15 U.S.C. 78s(b)(3)(C). Once the Commission temporarily suspends a proposed rule change, Section 19(b)(3)(C) of the Act requires that the Commission institute proceedings under Section 19(b)(2)(B) to determine whether a proposed rule change should be approved or disapproved.

[86] 15 U.S.C. 78s(b)(2)(B).

[87] *Id.*

[88] 15 U.S.C. 78f(b)(4).

[89] 15 U.S.C. 78f(b)(5).

[90] 15 U.S.C. 78f(b)(8).

[91] *See supra* note 37 and accompanying text.

estimated costs? Should the Exchange use cost projections or actual costs estimated for 2021 in a filing made in 2022, or make cost projections for 2022?

2. *Revenue Estimates and Profit Margin Range.* The Exchange provides a single monthly revenue figure as the basis for calculating the profit margin of 3.5%. Do commenters believe this is reasonable? If not, why not? The Exchange states that the proposed fees are ''designed to cover its costs with a limited return in excess of such costs,'' and that ''revenue and associated profit margin . . . are not solely intended to cover the costs associated with providing services subject to the proposed fees.'' [92] The profit margin is also dependent on the accuracy of the cost projections which, if inflated (intentionally or unintentionally), may render the projected profit margin meaningless. The Exchange acknowledges that this margin may fluctuate from month to month as Members and non-Members add and drop subscriptions,[93] and that costs may increase. The Exchange also states that the number of subscriptions has not materially changed over previous months and so the months that the Exchange has used as a baseline to perform its assessment are representative of reasonably anticipated costs and expenses.[94] The Exchange does not account for the possibility of cost decreases, however. What are commenters' views on the extent to which actual costs (or revenues) deviate from projected costs (or revenues)? Do commenters believe that the Exchange's methodology for estimating the profit margin is reasonable? Should the Exchange provide a range of profit margins that it believes are reasonably possible, and the reasons therefor?

3. *Reasonable Rate of Return.* Do commenters agree with the Exchange that its expected 3.5% profit margin would constitute a reasonable rate of return over costs for providing the cToM data product? If not, what would commenters consider to be a reasonable rate of return and/or what methodology would they consider to be appropriate for determining a reasonable rate of return? Further, the Exchange states that it chose to initially provide the cToM data product for free and to forego revenue that they otherwise could have generated from assessing any fees.[95] What are commenters' views regarding what factors should be considered in determining what constitutes a reasonable rate of return for the cToM market data product? Do commenters believe it relevant to an assessment of reasonableness that, according to the Exchange, the Exchange's proposed fees are similar to or lower than fees charged by competing options exchanges with similar market share? Should an assessment of reasonable rate of return include consideration of factors other than costs; and if so, what factors should be considered, and why?

4. *Periodic Reevaluation.* The Exchange addresses whether it believes a material deviation from the anticipated profit margin would warrant the need to make a rule filing pursuant to Section 19(b) of the Act to increase or decrease the fees accordingly, stating that ''[a]ny requirement that an exchange should conduct a periodic re-evaluation on a set timeline of its cost justification and amend its fees accordingly should be established by the Commission holistically, applied to all exchanges and not just through pending fee proposals, such as this filing,'' and that ''[i]n order to be fairly applied, such a mandate should be applied to existing access fees as well.'' [96] In light of the impact that the number of subscriptions has on profit margins, and the potential for costs to decrease (or increase) over time, what are commenters' views on the need for exchanges to commit to reevaluate, on an ongoing and periodic basis, their cost-based data fees to ensure that the fees stay in line with their stated profitability projections and do not become unreasonable over time, for example, by failing to adjust for efficiency gains, cost increases or decreases, and changes in subscribers? How formal should that process be, how often should that reevaluation occur, and what metrics and thresholds should be considered? How soon after a new data fee change is implemented should an exchange assess whether its revenue and/or cost estimates were accurate and at what threshold should an exchange commit to file a fee change if its estimates were inaccurate? Should an initial review take place within the first 30 days after a data fee is implemented? 60 days? 90 days? Some other period?

5. *Fees for Internal Distributors versus External Distributors.* The Exchange argues that it is reasonable, equitable, and not unfairly discriminatory to assess Internal Distributors fees that are lower than the fees assessed for External Distributors for subscriptions to the cToM data feed ($1,250 per month for Internal Distributors versus $1,750 per month for External Distributors), since Internal Distributors have limited, restricted usage rights to the market data, as compared to External Distributors, which have more expansive usage rights, including rights to commercialize such market data.[97] In addition, the Exchange states that it ''utilizes more resources'' to support External Distributors as compared to Internal Distributors, as External Distributors have reporting and monitoring obligations that Internal Distributors do not have, thus requiring ''additional time and effort'' of the Exchange's staff.[98] What are commenters' views on the adequacy of the information the Exchange provides regarding the differential between the Internal Distributor and External Distributor fees? Do commenters believe that the fees for Internal Distributors and External Distributors, as well as the fee differences between Distributors, are supported by the Exchange's assertions that it sets the differentiated pricing structure in a manner that is equitable and not unfairly discriminatory? Do commenters believe that the Exchange should demonstrate how the proposed Distributor fee levels correlate with different costs to better substantiate how the Exchange ''utilizes more resources'' to support External Distributors versus Internal Distributors and permit an assessment of the Exchange's statement that ''External Distributors have reporting and monitoring obligations that Internal Distributors do not have, thus requiring additional time and effort of Exchange staff''? [99]

Under the Commission's Rules of Practice, the ''burden to demonstrate that a proposed rule change is consistent with the [Act] and the rules and regulations issued thereunder . . . is on the [SRO] that proposed the rule change.'' [100] The description of a proposed rule change, its purpose and operation, its effect, and a legal analysis of its consistency with applicable requirements must all be sufficiently detailed and specific to support an affirmative Commission finding,[101] and any failure of an SRO to provide this information may result in the Commission not having a sufficient basis to make an affirmative finding that a proposed rule change is consistent with the Act and the applicable rules and regulations.[102] Moreover, ''unquestioning reliance'' on an SRO's

[92] *See supra* Section II.A.2.

[93] *See* text accompanying *supra* note 47.

[94] *See supra* Section II.A.2.

[95] *See* text accompanying *supra* notes 69–70.

[96] *See supra* Section II.A.2.

[97] *See* text accompanying *supra* notes 65–67.

[98] *See id.*

[99] *See id.*

[100] Rule 700(b)(3), Commission Rules of Practice, 17 CFR 201.700(b)(3).

[101] *See id.*

[102] *See id.*

representations in a proposed rule change would not be sufficient to justify Commission approval of a proposed rule change.[103]

The Commission believes it is appropriate to institute proceedings to allow for additional consideration and comment on the issues raised herein, including as to whether the proposal is consistent with the Act, any potential comments or supplemental information provided by the Exchange, and any additional independent analysis by the Commission.

V. Request for Written Comments

The Commission requests written views, data, and arguments with respect to the concerns identified above, as well as any other relevant concerns. In particular, the Commission invites the written views of interested persons concerning whether the proposal is consistent with Sections 6(b)(4), 6(b)(5), and 6(b)(8), or any other provision of the Act, or the rules and regulations thereunder. The Commission asks that commenters address the sufficiency and merit of the Exchange's statements in support of the proposal, in addition to any other comments they may wish to submit about the proposed rule change. Although there do not appear to be any issues relevant to approval or disapproval that would be facilitated by an oral presentation of views, data, and arguments, the Commission will consider, pursuant to Rule 19b–4, any request for an opportunity to make an oral presentation.[104]

Interested persons are invited to submit written data, views, and arguments concerning the proposed rule change, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's internet comment form (*http://www.sec.gov/rules/sro.shtml*); or
- Send an email to *rule-comments@sec.gov.* Please include File Number SR–EMERALD–2022–06 on the subject line.

Paper Comments

- Send paper comments in triplicate to Secretary, Securities and Exchange Commission, 100 F Street NE, Washington, DC 20549–1090.

All submissions should refer to File Number SR–EMERALD–2022–06. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's internet website (*http://www.sec.gov/rules/sro.shtml*). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street NE, Washington, DC 20549 on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change. Persons submitting comments are cautioned that we do not redact or edit personal identifying information from comment submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR–EMERALD–2022–06 and should be submitted on or before March 15, 2022. Rebuttal comments should be submitted by March 29, 2022.

VI. Conclusion

It is therefore ordered, pursuant to Section 19(b)(3)(C) of the Act,[105] that File Number SR–EMERALD–2022–06 be and hereby is, temporarily suspended. In addition, the Commission is instituting proceedings to determine whether the proposed rule change should be approved or disapproved.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[106]

J. Matthew DeLesDernier,

Assistant Secretary.

[FR Doc. 2022–03657 Filed 2–18–22; 8:45 am]

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[103] *See Susquehanna Int'l Group, LLP* v. *Securities and Exchange Commission,* 866 F.3d 442, 446–47 (D.C. Cir. 2017) (rejecting the Commission's reliance on an SRO's own determinations without sufficient evidence of the basis for such determinations).

[104] 15 U.S.C. 78s(b)(2). Section 19(b)(2) of the Act grants the Commission flexibility to determine what type of proceeding—either oral or notice and opportunity for written comments—is appropriate for consideration of a particular proposal by an SRO. *See* Securities Acts Amendments of 1975, Report of the Senate Committee on Banking, Housing and Urban Affairs to Accompany S. 249, S. Rep. No. 75, 94th Cong., 1st Sess. 30 (1975).

[105] 15 U.S.C. 78s(b)(3)(C).

[106] 17 CFR 200.30–3(a)(12), (57), and (58).

SECURITIES AND EXCHANGE COMMISSION

[Release No. 34–94252; File No. SR–CboeBZX–2022–008]

Self-Regulatory Organizations; Cboe BZX Exchange, Inc.; Notice of Filing and Immediate Effectiveness of a Proposed Rule Change To Amend Its Fee Schedule

February 15, 2022.

Pursuant to Section 19(b)(1) of the Securities Exchange Act of 1934 (the ''Act''),[1] and Rule 19b–4 thereunder,[2] notice is hereby given that on February 7, 2022, Cboe BZX Exchange, Inc. (the ''Exchange'' or ''BZX'') filed with the Securities and Exchange Commission (the ''Commission'') the proposed rule change as described in Items I, II, and III below, which Items have been prepared by the Exchange. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

Cboe BZX Exchange, Inc. (the ''Exchange'' or ''BZX'' or ''BZX Equities'') proposes to amend its Fee Schedule. The text of the proposed rule change is provided in Exhibit 5.

The text of the proposed rule change is also available on the Exchange's website (*http://markets.cboe.com/us/equities/regulation/rule_filings/bzx/*), at the Exchange's Office of the Secretary, and at the Commission's Public Reference Room.

II. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

In its filing with the Commission, the Exchange included statements concerning the purpose of and basis for the proposed rule change and discussed any comments it received on the proposed rule change. The text of these statements may be examined at the places specified in Item IV below. The Exchange has prepared summaries, set forth in sections A, B, and C below, of the most significant aspects of such statements.

[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

A. Self-Regulatory Organization's Statement of the Purpose of, and Statutory Basis for, the Proposed Rule Change

1. Purpose

The Exchange proposes to amend its fee schedule to decrease the standard liquidity adding rebate for orders in securities at or above $1.00 and to eliminate Tier 3 of the Single MPID Investor Tiers. The Exchange proposes to implement the proposed change to its fee schedule on February 1, 2022.[3]

The Exchange first notes that it operates in a highly competitive market in which market participants can readily direct order flow to competing venues if they deem fee levels at a particular venue to be excessive or incentives to be insufficient. More specifically, the Exchange is only one of 16 registered equities exchanges, as well as a number of alternative trading systems and other off-exchange venues that do not have similar self-regulatory responsibilities under the Securities Exchange Act of 1934 (the ''Act''), to which market participants may direct their order flow. Based on publicly available information,[4] no single registered equities exchange has more than 18% of the market share. Thus, in such a low-concentrated and highly competitive market, no single equities exchange possesses significant pricing power in the execution of order flow. The Exchange in particular operates a ''Maker-Taker'' model whereby it pays credits to Members that add liquidity and assesses fees to those that remove liquidity. The Exchange's fee schedule sets forth the standard rebates and rates applied per share for orders that provide and remove liquidity, respectively. Particularly, for securities at or above $1.00, the Exchange provides a standard rebate of $0.0018 per share for orders that add liquidity and assesses a fee of $0.0030 per share for orders that remove liquidity. Additionally, in response to the competitive environment, the Exchange also offers tiered pricing which provides Members opportunities to qualify for higher rebates or reduced fees where certain volume criteria and thresholds are met. Tiered pricing provides an incremental incentive for Members to strive for higher tier levels, which provides increasingly higher benefits or discounts for satisfying increasingly more stringent criteria.

Standard Liquidity Rebate

As stated above, the Exchange currently provides a standard rebate of $0.0018 per share for liquidity adding orders (*i.e.,* those yielding fee codes B,[5] V,[6] and Y[7]) in securities priced at or above $1.00. Orders in securities priced below $1.00 that add liquidity are free. The Exchange now proposes to decrease the current standard rebate of $0.0018 per share to $0.0016 per share for orders that add liquidity for securities priced at or above $1.00. Orders that add liquidity in securities priced below $1.00 would continue to be free. Although this proposed standard rebate for liquidity adding orders is lower than the current base rate for such orders, the proposed rebate is in line with similar rebates for liquidity adding orders in place on other exchanges.[8]

Single MPID Investor Tiers

The Exchange also proposes to eliminate the Single MPID Investor Tier 3, which is currently described under footnote 4 of the fee schedule. Particularly, this tier applies to orders yielding fee code B, V, or Y and provides a $0.0034 per share rebate to MPIDs that have a Step-Up ADAV[9] as a percentage of TCV[10] greater than or equal to 0.20% from September 2021 or MPIDs that have a Step-Up ADAV from September 2021 greater than or equal to 20 million shares. No Member has reached this tier in several months and the Exchange therefore no longer wishes to, nor is it required to, maintain such a tier.

Fee Schedule Clean Up

The Exchange proposes to update Footnote 19 of the Fee Schedule, which is appended to fee codes B, V, and Y, to reflect that orders that add liquidity to BZX for securities priced below $1.00 are free instead of a rebate of $0.00009 per share. The Exchange notes that it amended this rebate in May 2021 and that the ''Free'' rate is accurately reflected in the Standard Rates table.[11] However, the Exchange inadvertently at that time omitted updating corresponding Footnote 19 of the Fees Schedule and seeks to do so now.

Additionally, the Exchange notes that it removed the Total Volume tier from its Fee Code Schedule in December 2021,[12] but did not eliminate references to footnote 3 from fee codes B, V, and Y in Fee Code table. Accordingly, the Exchange now proposes to remove references to Footnote 3 from fee codes B, V, and Y, of the Fee Schedule.

2. Statutory Basis

The Exchange believes that the proposed rule change is consistent with the objectives of Section 6 of the Act,[13] in general, and furthers the objectives of Section 6(b)(4) and 6(b)(5),[14] in particular, as it is designed to provide for the equitable allocation of reasonable dues, fees and other charges among its Members, issuers and other persons using its facilities. The Exchange operates in a highly competitive market in which market participants can readily direct order flow to competing venues if they deem fee levels at a particular venue to be excessive or incentives to be insufficient. The proposed rule changes reflect a competitive pricing structure designed to incentivize market participants to direct their order flow to the Exchange, which the Exchange believes would enhance market quality to the benefit of all Members, and thus is in the public interest.

In particular, the Exchange believes that the proposed amendment to reduce the standard liquidity adding rebate is reasonable because the proposed change represents a modest rebate decrease and Members will continue to receive a rebate on liquidity adding orders, albeit at a lower amount. The Exchange believes the proposed amendment is also equitable and not unfairly discriminatory because the proposed change is equally applicable to all Members of the Exchange. Additionally, the proposed rebate for liquidity adding orders is in-line with rebates offered at other exchanges for similar transactions.[15]

The Exchange believes the proposed amendment to remove Single MPID

[3] The Exchange initially filed the proposed fee changes on February 1, 2022 (SR–BZX–2022–007). On February 7, 2022, the Exchange withdrew that filing and submitted this proposal.

[4] See Cboe Global Markets, U.S. Equities Market Volume Summary, Month-to-Date (January 23, 2022), available at *https://markets.cboe.com/us/equities/market_statistics/.*

[5] Orders yielding Fee Code ''B'' are displayed orders adding liquidity to BZX (Tape B).

[6] Orders yielding Fee Code ''V'' are displayed orders adding liquidity to BZX (Tape A).

[7] Orders yielding Fee Code ''Y'' are displayed orders adding liquidity to BZX (Tape C).

[8] *E.g.,* the Nasdaq base rebate ranges from $0.0015 to $0.00305 for liquidity adding orders in securities priced at or above $1.00. See *http://nasdaqtrader.com/Trader.aspx?id=PriceListTrading2.*

[9] ''Step-Up ADAV'' means ADAV in the relevant baseline month subtracted from current ADAV.

[10] ''TCV'' means total consolidated volume calculated as the volume reported by all exchanges and trade reporting facilities to a consolidated transaction reporting plan for the month for which the fees apply.

[11] *See* Securities Exchange Release No. 92013 (May 25, 2021) 86 FR 29312 (June 1, 2021) (SR–CboeBZX–2021–040).

[12] *See* Securities Exchange Release No. 34–93829 (December 20, 2021) 86 FR 73402 (December 20, 2021) [sic] (SRCboeBZX–2021–084).

[13] 15 U.S.C. 78f.

[14] 15 U.S.C. 78f(b)(4) and (5).

[15] Supra note 7 [sic].

Investor Tier 3 is reasonable because no Member has achieved this tier in several months. Moreover, the Exchange is not required to maintain this tier and Members still have a number of other opportunities and a variety of ways to receive enhanced rebates for displayed liquidity, including the enhanced rebates under the Single MPID Investor Tiers 1 and 2. The Exchange believes the proposal to eliminate this tier is also equitable and not unfairly discriminatory because it applies to all Members.

Lastly, the Exchange believes that the proposed change to update Footnote 19 is reasonable, equitable and not unfairly discriminatory as it does not change the fees or rebates assessed by the Exchange, but rather updates the rate applicable to liquidity adding orders in securities priced below $1.00 to accurately reflect the rate it adopted in the rule filing submitted in May 2021. As such, the proposed rule change is merely a clarification in the Fees Schedule which increases transparency in the Fees Schedule and reduces potential confusion regarding the appropriate rates for such orders. Similarly, the proposal to remove references to footnote three from fee codes B, V, and Y is reasonable, equitable and not unfairly discriminatory as it merely eliminates a reference to a reserved footnote.

B. Self-Regulatory Organization's Statement on Burden on Competition

The Exchange does not believe that the proposed rule change will impose any burden on intramarket or intermarket competition that is not necessary or appropriate in furtherance of the purposes of the Act. Particularly, the proposed changes apply to all liquidity adding orders equally, and thus applies to all Members equally. Additionally, the Exchange believes the proposed rule change does not impose any burden on intermarket competition that is not necessary or appropriate in furtherance of the purpose of the Act.

As previously discussed, the Exchange operates in a highly competitive market. Members have numerous alternative venues that they may participate on and direct their order flow, including other equities exchanges, off-exchange venues, and alternative trading systems. Additionally, the Exchange represents a small percentage of the overall market. Based on publicly available information, no single equities exchange has more than 18% of the market share.[16] Therefore, no exchange possesses significant pricing power in the execution of order flow. Indeed, participants can readily choose to send their orders to other exchange and off-exchange venues if they deem fee levels at those other venues to be more favorable. Moreover, the Commission has repeatedly expressed its preference for competition over regulatory intervention in determining prices, products, and services in the securities markets. Specifically, in Regulation NMS, the Commission highlighted the importance of market forces in determining prices and SRO revenues and, also, recognized that current regulation of the market system ''has been remarkably successful in promoting market competition in its broader forms that are most important to investors and listed companies.'' [17] The fact that this market is competitive has also long been recognized by the courts. In *NetCoalition* v. *Securities and Exchange Commission*, the D.C. Circuit stated as follows: ''[n]o one disputes that competition for order flow is 'fierce.' . . . As the SEC explained, '[i]n the U.S. national market system, buyers and sellers of securities, and the broker-dealers that act as their order-routing agents, have a wide range of choices of where to route orders for execution'; [and] 'no exchange can afford to take its market share percentages for granted' because 'no exchange possesses a monopoly, regulatory or otherwise, in the execution of order flow from broker dealers' . . . .''.[18] Accordingly, the Exchange does not believe its proposed fee changes imposes any burden on competition that is not necessary or appropriate in furtherance of the purposes of the Act.

C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others

The Exchange neither solicited nor received comments on the proposed rule change.

III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

The foregoing rule change has become effective pursuant to Section 19(b)(3)(A) of the Act [19] and paragraph (f) of Rule 19b–4 [20] thereunder. At any time within 60 days of the filing of the proposed rule change, the Commission summarily may temporarily suspend such rule change if it appears to the Commission that such action is necessary or appropriate in the public interest, for the protection of investors, or otherwise in furtherance of the purposes of the Act. If the Commission takes such action, the Commission will institute proceedings to determine whether the proposed rule change should be approved or disapproved.

IV. Solicitation of Comments

Interested persons are invited to submit written data, views, and arguments concerning the foregoing, including whether the proposed rule change is consistent with the Act. Comments may be submitted by any of the following methods:

Electronic Comments

- Use the Commission's internet comment form (*http://www.sec.gov/rules/sro.shtml*); or
- Send an email to *rule-comments@sec.gov*. Please include File Number SR–CboeBZX–2022–008 on the subject line.

Paper Comments

- Send paper comments in triplicate to Secretary, Securities and Exchange Commission, 100 F Street NE, Washington, DC 20549–1090.

All submissions should refer to File Number SR–CboeBZX–2022–008. This file number should be included on the subject line if email is used. To help the Commission process and review your comments more efficiently, please use only one method. The Commission will post all comments on the Commission's internet website (*http://www.sec.gov/rules/sro.shtml*). Copies of the submission, all subsequent amendments, all written statements with respect to the proposed rule change that are filed with the Commission, and all written communications relating to the proposed rule change between the Commission and any person, other than those that may be withheld from the public in accordance with the provisions of 5 U.S.C. 552, will be available for website viewing and printing in the Commission's Public Reference Room, 100 F Street NE, Washington, DC 20549, on official business days between the hours of 10:00 a.m. and 3:00 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change. Persons submitting comments are cautioned that we do not redact or edit personal identifying information from

[16] *Supra* note 3 [sic].

[17] *See* Securities Exchange Act Release No. 51808 (June 9, 2005), 70 FR 37496, 37499 (June 29, 2005).

[18] *NetCoalition* v. *SEC*, 615 F.3d 525, 539 (D.C. Cir. 2010) (quoting Securities Exchange Act Release No. 59039 (December 2, 2008), 73 FR 74770, 74782–83 (December 9, 2008) (SR–NYSEArca–2006–21)).

[19] 15 U.S.C. 78s(b)(3)(A).

[20] 17 CFR 240.19b–4(f).

comment submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR–CboeBZX–2022–008 and should be submitted on or before March 15, 2022.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[21]

J. Matthew DeLesDernier,

Assistant Secretary.

[FR Doc. 2022–03649 Filed 2–18–22; 8:45 am]

BILLING CODE 8011–01–P

SMALL BUSINESS ADMINISTRATION

Meeting of the Interagency Task Force on Veterans Small Business Development

AGENCY: Small Business Administration (SBA).

ACTION: Notice of open federal advisory committee meeting.

SUMMARY: The SBA is issuing this notice to announce the date, time, and agenda for the next meeting of the Interagency Task Force on Veterans Small Business Development (IATF).

DATES: Wednesday, March 2, 2022, from 1:00 p.m. to 3:30 p.m. EST.

ADDRESSES: Due to the coronavirus pandemic, the meeting will be held via Microsoft Teams.

FOR FURTHER INFORMATION CONTACT: The meeting is open to the public; however advance notice of attendance is strongly encouraged. To RSVP and confirm attendance, the general public should email *veteransbusiness@sba.gov* with subject line—''RSVP for March 2, 2022, IATF Public Meeting.'' To submit a written comment, individuals should email *veteransbusiness@sba.gov* with subject line—''Response for March 2, 2022, IATF Public Meeting'' no later than February 22, 2022, or contact Timothy Green, Deputy Associate Administrator, Office of Veterans Business Development (OVBD) at (202) 205–6773. Comments received in advanced will be addressed as time allows during the public comment period. All other submitted comments will be included in the meeting record. During the live meeting, those who wish to comment will be able to do so during the public comment period.

Participants can join the meeting via computer *https://bit.ly/MarIATF* or phone. Call in (audio only): Dial: 202–765–1264: Phone Conference ID: 329 057 681#.

Special accommodation requests should be directed to OVBD at (202) 205–6773 or *veteransbusiness@sba.gov.* Applicable documents will be posted on the IATF website prior to the meeting: *https://www.sba.gov/page/interagency-task-force-veterans-small-business-development.* For more information on veteran-owned small business programs, please visit *www.sba.gov/ovbd.*

SUPPLEMENTARY INFORMATION: Pursuant to section 10(a)(2) of the Federal Advisory Committee Act (5 U.S.C., appendix 2), SBA announces the meeting of the Interagency Task Force on Veterans Small Business Development (IAFT). The IATF is established pursuant to Executive Order 13540 to coordinate the efforts of Federal agencies to improve capital, business development opportunities, and pre-established federal contracting goals for small business concerns owned and controlled by veterans and service-disabled veterans.

The purpose of this meeting is to discuss efforts that support veteran-owned small businesses, updates on past and current events, and the IATF's objectives for fiscal year 2022.

Dated: February 15, 2022.

Andrienne Johnson,

Committee Management Officer.

[FR Doc. 2022–03596 Filed 2–18–22; 8:45 am]

BILLING CODE 8026–03–P

DEPARTMENT OF STATE

[Public Notice: 11661]

Notice of Public Meeting in Preparation for the International Maritime Organization PPR 9 Meeting

The Department of State will conduct a public meeting at 1:00 p.m. on Tuesday, March 22, 2022, by way of teleconference. The primary purpose of the meeting is to prepare for the ninth session of the International Maritime Organization's (IMO) Sub-Committee on Pollution Prevention and Response (PPR 9) to be held remotely from Monday, April 4, 2022 to Friday, April 8, 2022.

Members of the public may participate up to the capacity of the teleconference phone line, which can handle 500 participants. To RSVP, participants should contact the meeting coordinator, LCDR Bryan Watts, by email at *Bryan.Watts@uscg.mil.* To access the teleconference line, participants should call (202) 475–4000 and use Participant Code: 877 239 87#.

The agenda items to be considered at the public meeting mirror those to be considered at PPR 9 and include:

—Adoption of the agenda
—Decisions of other IMO bodies
—Safety and pollution hazards of chemicals and preparation of consequential amendments to the IBC Code
—Development of an operational guide on the response to spills of hazardous and noxious substances (HNS)
—Revised guidance on methodologies that may be used for enumerating viable organisms
—Revision of guidelines associated with the AFS Convention as a consequence of the introduction of controls on cybutryne
—Review of the 2011 Guidelines for the control and management of ships' biofouling to minimize the transfer of invasive aquatic species (resolution MEPC.207(62))
—Reduction of the impact on the Arctic of Black Carbon emissions from international shipping
—Standards for shipboard gasification of waste systems and associated amendments to regulation 16 of MARPOL Annex VI
—Evaluation and harmonization of rules and guidance on the discharge of discharge water from exhaust gas cleaning systems (EGCS) into the aquatic environment, including conditions and areas
—Development of amendments to MARPOL Annex VI and the NO_X Technical Code on the use of multiple engine operational profiles for a marine diesel engine
—Development of measures to reduce risks of use and carriage of heavy fuel oil as fuel by ships in Arctic waters
—Development of necessary amendments to MARPOL Annexes I, II, IV, V, and VI to allow States with ports in the Arctic region to enter into regional arrangements for port reception facilities (PRFs)
—Revision of MARPOL Annex IV and associated guidelines to introduce provisions for record-keeping and measures to confirm the lifetime performance of sewage treatment plants
—Follow-up work emanating from the Action Plan to Address Marine Plastic Litter from Ships
—Unified Interpretation to provisions of IMP environment-related conventions
—Biennial status report and provisional agenda for PPR 10
—Election of Chair and Vice-Chair for 2023
—Any other business
—Consideration of the report of the Sub-Committee

Please note: The IMO may, on short notice, adjust the PPR 9 agenda to

[21] 17 CFR 200.30–3(a)(12).

accommodate the constraints associated with the virtual meeting format. Any changes to the agenda will be reported to those who RSVP.

Those who plan to participate may contact the meeting coordinator, LCDR Bryan Watts, by email at *Bryan.Watts@uscg.mil,* by phone at (202) 372–1446, or in writing at COMDT (CG–OES–3), ATTN: LCDR Bryan Watts, 2703 Martin Luther King Jr. Ave. SE Stop 7509, Washington DC 20593–7509. Members of the public needing reasonable accommodation should advise LCDR Watts not later than March 15, 2022. Requests made after that date will be considered, but might not be possible to fulfill.

Additional information regarding this and other IMO public meetings may be found at: *https://www.dco.uscg.mil/IMO.*

(Authority: 22 U.S.C. 2656 and 5 U.S.C. 552)

Emily A. Rose,

Coast Guard Liaison Officer, Office of Ocean and Polar Affairs, Department of State.

[FR Doc. 2022–03641 Filed 2–18–22; 8:45 am]

BILLING CODE 4710–09–P

DEPARTMENT OF STATE

[Public Notice 11658]

Biodiversity Beyond National Jurisdiction

ACTION: Notice of Public Meeting

SUMMARY: The Department of State will hold an information session regarding upcoming United Nations negotiations concerning marine biodiversity in areas beyond national jurisdiction.

DATES: The public meeting will be held via WebEx on February 23, 2022, 3:00—4:00 p.m.

FOR FURTHER INFORMATION CONTACT: If you would like to participate in this meeting, please send your (1) name, (2) organization/affiliation, and (3) email address and phone number, to Erika Carlsen at *CarlsenEL@state.gov.*

SUPPLEMENTARY INFORMATION: The Department of State will hold a public meeting at 3:00 p.m. on Wednesday, February 23, 2022, to prepare for the fourth session of an Intergovernmental Conference (IGC) on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction (BBNJ). This public meeting will be held by way of WebEx, with a capacity of up to 1000 members of the public to participate. To RSVP, participants should contact the meeting coordinator, Erika Carlsen, by email at *CarlsenEL@state.gov* for log on and dial-in information, and to request reasonable accommodation. Requests for reasonable accommodation received after February 18, 2022, will be considered but might not be possible to fulfill.

The United Nations will convene the fourth session of the BBNJ IGC on March 7–18, 2022, in New York City. The UN General Assembly established the IGC to consider the recommendations of a two-year Preparatory Committee and to elaborate the text of an international legally binding instrument under the United Nations Convention on the Law of Sea on BBNJ. The previously scheduled fourth session of the IGC was postponed due to the coronavirus pandemic. Additional information on the BBNJ process is available at *www.un.org/bbnj.*

We are inviting interested stakeholders to this virtual public meeting to share views about the BBNJ IGC, in particular to provide information to assist the U.S. Government in developing its positions. We will provide a brief overview of the upcoming discussions and listen to the viewpoints of U.S. stakeholders. The information obtained from this session will help the U.S. delegation prepare for participation in the fourth IGC session.

Zachary A. Parker,

Director, Office of Directives Management, U.S. Department of State.

[FR Doc. 2022–03670 Filed 2–18–22; 8:45 am]

BILLING CODE 4710–09–P

DEPARTMENT OF STATE

[Public Notice: 11662]

Determination and Certification of the Foreign Assistance Act Relating to the Largest Exporting and Importing Countries of Certain Precursor Chemicals

Pursuant to Section 490(b)(1)(A) of the Foreign Assistance Act of 1961, as amended, I hereby determine and certify the top five exporting and importing countries and economies of pseudoephedrine and ephedrine (Canada, Germany, India, Indonesia, Japan, People's Republic of China, Republic of Korea, Singapore, Switzerland, Turkey, and the United Kingdom) have cooperated fully with the United States, or have taken adequate steps on their own, to achieve full compliance with the goals and objectives established by the 1988 UN Convention Against Illicit Traffic in Narcotic Drugs and Psychotropic Substances.

This determination and certification shall be published in the **Federal Register**, and copies shall be provided to Congress together with the companying Memorandum of Justification.

Dated: January 28, 2022.

Wendy R. Sherman,

Deputy Secretary of State.

[FR Doc. 2022–03743 Filed 2–18–22; 8:45 am]

BILLING CODE 4710–17–P

SURFACE TRANSPORTATION BOARD

[Docket No. AB 55 (Sub-No. 806X)]

CSX Transportation, Inc.—Abandonment Exemption—in Erie County, PA.

CSX Transportation, Inc. (CSXT), has filed a verified notice of exemption under 49 CFR part 1152 subpart F—*Exemption Abandonments* to abandon an approximately 0.5-mile rail line between Val Sta. 1576+25 and Val Sta. 170+35 on its Great Lakes Division, Erie West Subdivision, in Erie County, PA (the Line). The Line traverses U.S. Postal Service Zip Code 16507.

CSXT has certified that: (1) No freight traffic has moved over the Line for at least two years; (2) the Line is not a through line, and therefore no overhead traffic has operated over the Line and none would need to be rerouted; (3) no formal complaint filed by a user of rail service on the Line (or by state or local government on behalf of such user) regarding cessation of service over the Line either is pending with the Surface Transportation Board (Board) or has been decided in favor of a complainant within the two-year period; and (4) the requirements at 49 CFR 1105.7(b) and 1105.8(c) (notice of environmental and historic reports), 49 CFR 1105.12 (newspaper publication), and 49 CFR 1152.50(d)(1) (notice to government agencies) have been met.

As a condition to this exemption, any employee adversely affected by the abandonment shall be protected under *Oregon Short Line Railroad—Abandonment Portion Goshen Branch Between Firth & Ammon, in Bingham & Bonneville Counties, Idaho,* 360 I.C.C. 91 (1979). To address whether this condition adequately protects affected employees, a petition for partial revocation under 49 U.S.C. 10502(d) must be filed.

Provided no formal expression of intent to file an offer of financial assistance (OFA) has been received,[1]

[1] Persons interested in submitting an OFA must first file a formal expression of intent to file an

this exemption will be effective on March 24, 2022, unless stayed pending reconsideration. Petitions to stay that do not involve environmental issues,[2] formal expressions of intent to file an OFA under 49 CFR 1152.27(c)(2), and interim trail use/rail banking requests under 49 CFR 1152.29 must be filed by March 4, 2022.[3] Petitions to reopen or requests for public use conditions under 49 CFR 1152.28 must be filed by March 14, 2022.

All pleadings, referring to Docket No. AB 55 (Sub-No. 806X), should be filed with the Surface Transportation Board via e-filing on the Board's website. In addition, a copy of each pleading must be served on CSXT's representative, Louis E. Gitomer, Law Offices of Louis E. Gitomer, LLC, 600 Baltimore Avenue, Suite 301, Towson, MD 21204.

If the verified notice contains false or misleading information, the exemption is void ab initio.

CSXT has filed a combined environmental and historic report that addresses the potential effects, if any, of the abandonment on the environment and historic resources. OEA will issue a Draft Environmental Assessment (Draft EA) by February 25, 2022. The Draft EA will be available to interested persons on the Board's website, by writing to OEA, or by calling OEA at (202) 245–0294. Assistance for the hearing impaired is available through the Federal Relay Service at (800) 877–8339. Comments on environmental or historic preservation matters must be filed within 15 days after the Draft EA becomes available to the public.

Environmental, historic preservation, public use, or trail use/rail banking conditions will be imposed, where appropriate, in a subsequent decision.

Pursuant to the provisions of 49 CFR 1152.29(e)(2), CSXT shall file a notice of consummation with the Board to signify that it has exercised the authority granted and fully abandoned the Line. If consummation has not been effected by CSXT's filing of a notice of consummation by February 22, 2023, and there are no legal or regulatory barriers to consummation, the authority to abandon will automatically expire.

Board decisions and notices are available at *www.stb.gov.*

Decided: February 15, 2022.

By the Board, Scott M. Zimmerman, Acting Director, Office of Proceedings.

Stefan Rice,

Clearance Clerk.

[FR Doc. 2022–03704 Filed 2–18–22; 8:45 am]

BILLING CODE 4915–01–P

OFFICE OF THE UNITED STATES TRADE REPRESENTATIVE

China's Acts, Policies, and Practices Related to Technology Transfer, Intellectual Property, and Innovation; Technical Modifications to 301 Action

AGENCY: Office of the United States Trade Representative (USTR).

ACTION: Notice.

SUMMARY: Effective January 27, 2022, the U.S. International Trade Commission (USITC) implemented certain changes to the Harmonized Tariff Schedule of the United States (HTSUS) to conform to amendments adopted by the World Customs Organization. To rectify a technical error and ensure that those amendments do not extend the scope of the additional duties in the Section 301 investigation of China's acts, policies, and practices related to technology transfer, intellectual property, and innovation (China 301 investigation), this notice makes two technical modifications in the HTSUS notes implementing the additional duties.

DATES: The technical modifications in the Annex to this notice are applicable as of January 27, 2022.

FOR FURTHER INFORMATION CONTACT: For general questions about this notice, contact Associate General Counsel Philip Butler or Assistant General Counsel Rachel Hasandras at (202) 395–5725. For specific questions on customs classification or implementation of the product exclusion identified in the Annex to this notice, contact *traderemedy@cbp.dhs.gov.*

SUPPLEMENTARY INFORMATION:

A. Background

Effective January 27, 2022, the USITC, in accordance with Presidential Proclamation 10326 of December 23, 2021, implemented certain changes in the HTSUS in accordance with its responsibility to update the HTSUS to conform to amendments adopted by the World Customs Organization. These changes subjected HTSUS subheading 2931.49.00 to additional duties in the China 301 investigation.

B. Technical Modifications to China 301 Action

The Annex to this notice makes technical modifications to the HTSUS to correct the error of subjecting HTSUS subheading 2931.49.00 to additional duties in the China 301 investigation. In particular, the Annex makes technical modifications to U.S. notes 20(f) and 20(u) to subchapter III of chapter 99 of the HTSUS, as set out in the Annexes to the notices published at 83 FR 47974 (September 21, 2018), 84 FR 43304 (August 20, 2019), and 84 FR 69447 (December 18, 2019). The technical changes are applicable as of January 27, 2022, which is the same effective date as the HTSUS changes conforming to the World Customs Organization amendments.

Annex

Effective with respect to goods entered for consumption, or withdrawn from warehouse for consumption, on or after 12:01 a.m. eastern standard time on January 27, 2022:

1. U.S. note 20(f) to subchapter III of chapter 99 of the Harmonized Tariff Schedule of the United States (HTSUS) is amended by deleting ''2931.49.00''; and

2. U.S. note 20(u) to subchapter III of chapter 99 of the HTSUS is amended:

a. by deleting ''2931.39.00''; and

b. by inserting ''2931.49.00'', in numerical sequence.

Greta Peisch,

General Counsel, Office of the United States Trade Representative.

[FR Doc. 2022–03701 Filed 2–18–22; 8:45 a.m.]

BILLING CODE 3290–F2–P

DEPARTMENT OF TRANSPORTATION

National Highway Traffic Safety Administration

[Docket No. NHTSA–2017–0018]

BMW of North America, LLC and Volkswagen Group of America; Denial of Petitions for Temporary Exemption From FMVSS No. 108 for Vehicles With Adaptive Driving Beam Headlamps

AGENCY: National Highway Traffic Safety Administration (NHTSA), Department of Transportation (DOT).

ACTION: Notice of denial of petitions for a temporary exemption for vehicles equipped with adaptive driving beam headlighting systems from certain requirements of Federal Motor Vehicle Safety Standard (FMVSS) No. 108;

offer, indicating the type of financial assistance they wish to provide (*i.e.,* subsidy or purchase) and demonstrating that they are preliminarily financially responsible. *See* 49 CFR 1152.27(c)(2)(i).

[2] The Board will grant a stay if an informed decision on environmental issues (whether raised by a party or by the Board's Office of Environmental Analysis (OEA) in its independent investigation) cannot be made before the exemption's effective date. *See Exemption of Out-of-Serv. Rail Lines,* 5 I.C.C.2d 377 (1989). Any request for a stay should be filed as soon as possible so that the Board may take appropriate action before the exemption's effective date.

[3] Filing fees for OFAs and trail use requests can be found at 49 CFR 1002.2(f)(25) and (27), respectively.

''Lamps, reflective devices, and associated equipment.''

SUMMARY: This document denies petitions from Volkswagen Group of America (Volkswagen) and BMW of North America, LLC (BMW) (collectively, Petitioners) for temporary exemptions from certain requirements of FMVSS No. 108 to allow installation of adaptive driving beam (ADB) headlighting systems. Both manufacturers requested exemptions on the basis that an exemption would facilitate the development or field evaluation of a new motor vehicle safety feature providing a safety level at least equal to that of the standard. NHTSA has determined that, in light of the publication today of a final rule amending FMVSS No. 108 to allow ADB systems, there is no need to grant the requested exemptions because the standard now allows the deployment of such systems. Accordingly, the petitions are denied.

FOR FURTHER INFORMATION CONTACT: John Piazza, Office of the Chief Counsel, National Highway Traffic Safety Administration, 1200 New Jersey Avenue SE, Washington, DC 20590. Telephone: 202–366–2992; Email: *John.Piazza@dot.gov.*

SUPPLEMENTARY INFORMATION:

I. Background

On September 11, 2017, NHTSA published a notice of receipt of a petition from Volkswagen for a temporary exemption from certain requirements of FMVSS No. 108 to allow the use of ADB headlights (82 FR 42720). On March 22, 2018, NHTSA published a notice of receipt of a similar petition from BMW (83 FR 12650). That notice also requested additional information from Volkswagen, BMW, and any other manufacturers wishing to submit exemption petitions for ADB systems, to assist NHTSA in evaluating such petitions.[1] Volkswagen and BMW subsequently submitted additional information in response to the 2018 notice.

Adaptive driving beam systems are an advanced type of semiautomatic headlamp beam switching technology that aims to address the tradeoff between forward visibility and glare. ADB systems are capable of producing a dynamic adaptive beam pattern brighter than a conventional lower beam, but not as bright as an upper beam. This adaptive beam is particularly useful for distance illumination of pedestrians, cyclists, animals, and objects in or near the road when other vehicles are present and thus preclude use of the upper beam.[2]

NHTSA is today publishing a final rule amending FMVSS No. 108 to permit ADB systems. The final rule establishes performance requirements to ensure that ADB systems operate safely by not glaring other motorists and providing a minimum level of visibility. The final rule is effective immediately.

II. Overview of the Petitions

Volkswagen Petition

Volkswagen petitioned for an exemption from S9.4 and S10.14.6 of FMVSS No. 108 for its Matrix Beam ADB system on Audi A7 models (which may also include S7 and Rs7 variants). Section S9.4 requires that a vehicle have a means of switching between lower and upper beams. The means must be designed and located so that it may be operated conveniently by a simple movement of the driver's hand or foot. The switch must have no dead point and, except as provided by S6.1.5.2, the lower and upper beams must not be energized simultaneously except momentarily for temporary signaling purposes or during switching between beams. S10.14.6 specifies the photometry requirements for integral beam headlighting systems. Volkswagen indicated that the Matrix Beam may not comply with these requirements.

The basis for the application is that the exemption would make easier the development or field evaluation of a new motor vehicle safety feature providing a safety level at least equal to that of the standard. Volkswagen explained how the Matrix Beam system operates and the safety benefits it believes the system would offer. Volkswagen also submitted additional information in response to NHTSA's request for information in the 2018 notice.

BMW Petition

BMW petitioned for an exemption from FMVSS No. 108 for BMW i8 vehicles equipped with its Laserlight Glare-Free High Beam Assist. Similar to Volkswagen, BMW sought an exemption from the requirement of S9.4 that prohibits the simultaneous energization of the lower and upper beams and from the upper beam photometry requirements of S10.14.6. BMW stated that the photometry requirements specify minimum and maximum photometric intensities of the upper beam light that may not be met by the Glare-Free High Beam Assist.

The basis for the application is that the exemption would make easier the development or field evaluation of a new motor vehicle safety feature providing a safety level at least equal to that of the standard. BMW explained how the Glare-Free High Beam Assist operates and the safety benefits it believes the system would offer. BMW also submitted additional information in response to NHTSA's requests for information in the 2018 notice.

III. Summary of Comments

NHTSA received 17 comments on one or both of the petitions. Several manufacturers or trade groups (Truck and Engine Manufacturers Association, SAE, Osram Sylvania Products, Inc., Alliance of Automobile Manufacturers (Alliance), American Trucking Associations, Mercedes-Benz USA, LLC, and Transportation Safety Equipment Institute (TSEI)) commented in support of the petitions. Two public interest groups (Advocates for Highway Safety and Consumers Union) also supported or conditionally supported granting one or both of the petitions. Several individual citizens commented in support of granting one or both of the petitions.

SAE, the Alliance, and Mercedes also responded to NHTSA's 2018 request for additional information. These comments were repeated in these organizations' comments to the ADB NPRM. OSRAM, the Alliance, Mercedes, and TSEI supported SAE's comment. Advocates for Highway Safety commented on Volkswagen's petition and conditionally supported it. Consumers Union commented on several issues, and submitted similar comments to the NPRM.[3]

IV. Agency Analysis and Decision

NHTSA has considered Petitioners' arguments, the comments received on the petitions, and the final rule that is being issued today. NHTSA has determined that the issuance of the final rule makes it unnecessary for NHTSA to grant the petitions.

[1] The basis for both petitions is that an exemption would make easier the development or field evaluation of a new motor vehicle safety feature providing a safety level at least equal to that of the standard. 49 CFR 555.6(b).

[2] ADB technology can enhance safety in two ways. First, such systems provide more illumination than existing lower beams by providing a sculpted, dynamic beam pattern that adjusts to avoid glaring other motorists; high-resolution ADB systems are even capable of classifying objects and placing optimized levels of light on all objects in the driver's view (such as retroreflective signs or pedestrians). Second, such systems facilitate increased use of the upper beam in situations where other vehicles will not be glared. For both these reasons, ADB has the potential to reduce the risk of crashes by increasing visibility without increasing glare.

[3] NHTSA has addressed all significant comments to the NPRM in the ADB final rule published today.

Petitioners argue that an exemption is necessary because their ADB systems may not comply with the requirements of S9.4 and S10.14.6. They also contend that an exemption would facilitate the development and field evaluation of their ADB systems because it would allow them to obtain data and consumer feedback on system performance. The publication of the FMVSS No. 108 final rule published today—that is effective immediately—permitting the deployment of ADB systems renders these petitions unnecessary. Petitioners and other manufacturers wishing to equip vehicles with ADB systems may do so, provided that the systems comply with the requirements set out in the final rule.[4]

The requirements adopted by the final rule are necessary to ensure that ADB systems operate safely with respect to glare prevention and visibility. The requirements are generally within the capabilities of current ADB systems (some system modifications might be necessary). These issues are discussed at length in the preamble to the final rule.

We note that the manufacturers' comments regarding the additional information NHTSA requested were also included in the comments those same manufacturers submitted to the ADB rulemaking docket in response to the NPRM. Those comments are addressed in the preamble to the final rule.

Decision—Based on the foregoing, the petitions from Volkswagen and BMW for temporary exemption are denied.

Authority: 49 U.S.C. 30113; delegations of authority at 49 CFR 1.95 and 501.4, and 501.5.

Steven S. Cliff,

Deputy Administrator.

[FR Doc. 2022–02452 Filed 2–18–22; 8:45 am]

BILLING CODE 4910–59–P

[4] We do not read the petitioners as requesting an exemption from the requirements of the final rule, as the rule did not exist at the time of their petitions. Alternatively, we believe it is not necessary, nor would it be in the public interest, to exempt the ADB systems from the requirements for ADB systems in today's final rule based on the information provided in the petitions.

DEPARTMENT OF TRANSPORTATION

National Highway Traffic Safety Administration

[Docket No. NHTSA–2021–0059]

Agency Information Collection Activities; Notice and Request for Comments; Consolidated Vehicles' Owner's Manual Requirements for Motor Vehicles and Motor Vehicle Equipment

AGENCY: National Highway Traffic Safety Administration (NHTSA), Department of Transportation (DOT).

ACTION: Notice and request for comments on a reinstatement with modification of a previously approved information collection.

SUMMARY: The National Highway Traffic Safety Administration invites public comments about our intention to request approval from the Office of Management and Budget (OMB) to reinstate a previously approved information collection with modification. Before a Federal agency can collect certain information from the public, it must receive approval from OMB. Under procedures established by the Paperwork Reduction Act of 1995, before seeking OMB approval, Federal agencies must solicit public comment on proposed collections of information, including extensions and reinstatements of previously approved collections. This document describes a collection of information for which NHTSA intends to seek OMB approval on Vehicle Owner's Manual Requirements for Motor Vehicles and Motor Vehicle Equipment. NHTSA is requesting a modification of the information collection to include regulatory changes made by NHTSA's Adaptive Driving Beam Headlamps final rule. NHTSA is also requesting modification to include requirements for owner's manuals in NHTSA's existing regulations.

DATES: Written comments should be submitted by April 25, 2022.

ADDRESSES: You may submit comments, identified by NHTSA docket number identified above, through any of the following methods:

- *Electronic submissions:* Go to the Federal eRulemaking Portal at *https://www.regulations.gov.* Follow the online instructions for submitting comments.
- *Fax:* 202–493–2251.
- *Mail or Hand Delivery:* Docket Management, U.S. Department of Transportation, 1200 New Jersey Avenue SE, West Building, Room W12–140, Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except on Federal holidays. To be sure someone is there to help you, please call (202) 366–9322 before coming.

Instructions: All submissions must include the agency name and docket number for this notice. Note that all comments received will be posted without change to *https://www.regulations.gov,* including any personal information provided. Please see the Privacy Act heading below.

Privacy Act: Anyone is able to search the electronic form of all comments received into any of our dockets by the name of the individual submitting the comment (or signing the comment, if submitted on behalf of an association, business, labor union, etc.). You may review DOT's complete Privacy Act Statement in the **Federal Register** published on April 11, 2000 (65 FR 19477–78) or you may visit *https://www.transportation.gov/privacy.*

Docket: For access to the docket to read background documents or comments received, go to *https://www.regulations.gov* or the street address listed above. Follow the online instructions for accessing the dockets via internet.

FOR FURTHER INFORMATION CONTACT: For additional information or access to background documents, contact James Myers, NHTSA, 1200 New Jersey Avenue SE, West Building, Room W43–320, NRM–100, Washington, DC 20590. Mr. Myers' telephone number is 202–493–0031. Please identify the relevant collection of information by referring to its OMB Control Number.

SUPPLEMENTARY INFORMATION: Under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*), before an agency submits a proposed collection of information to OMB for approval, it must first publish a document in the **Federal Register** providing a 60-day comment period and otherwise consult with members of the public and affected agencies concerning each proposed collection of information. The OMB has promulgated regulations describing what must be included in such a document. Under OMB's regulation (at 5 CFR 1320.8(d)), an agency must ask for public comment on the following: (a) Whether the proposed collection of information is necessary for the proper performance of the functions of the agency, including whether the information will have practical utility; (b) the accuracy of the agency's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumptions used; (c) how to enhance the quality, utility, and clarity of the information to be

collected; and (d) how to minimize the burden of the collection of information on those who are to respond, including the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology, *e.g.,* permitting electronic submission of responses. In compliance with these requirements, NHTSA asks for public comments on the following proposed collection of information for which the agency is seeking approval from OMB.

Title: Consolidated Vehicle Owner's Manual Requirements for Motor Vehicles and Motor Vehicle Equipment.

OMB Control Number: 2127–0541.

Form Numbers: N/A.

Type of Request: Request for reinstatement with modification of a previously approved collection of information.

Type of Review Requested: Regular.

Requested Expiration Date of Approval: 3 years from date of approval.

Summary of the Collection of Information:

NHTSA is seeking approval for a reinstatement with modification of a previously approved information collection request (ICR) covering fifteen information collections. These information collections require or ask manufacturers of motor vehicles and motor vehicle equipment to provide information in owner's manuals, as specified in the Federal motor vehicle safety standards and other NHTSA regulations. The modification reflects regulatory changes contained in the Adaptive Driving Beam (ADB) final rule published today affecting FMVSS No. 108, ''Lamps, reflective devices, and associated equipment.'' The modification also covers information collection requirements inadvertently left out of previous ICRs.

The National Traffic and Motor Vehicle Safety Act authorizes the Secretary of Transportation (NHTSA by delegation), at 49 U.S.C. 30111, to issue Federal Motor Vehicle Safety Standards (FMVSS) that set performance standards for motor vehicles and items of motor vehicle equipment. Further, the Secretary (NHTSA by delegation) is authorized, at 49 U.S.C. 30117, to require manufacturers to provide information to first purchasers of motor vehicles or items of motor vehicle equipment related to performance and safety in printed materials that are attached to or accompany the motor vehicle or item of motor vehicle equipment. NHTSA has exercised this authority to require manufacturers to provide certain specified safety information to be readily available to consumers and purchasers of motor vehicles and items of motor vehicle equipment. This information is most often provided in vehicle owners' manuals and the requirements are found in 49 CFR parts 563, 571, and 575. This information collection request only covers requirements or requests to provide information that is not provided verbatim in the regulation or standard. The information requirements or requests are included in: Part 563, ''Event data recorders;'' FMVSS No. 108, ''Lamps, reflective devices, and associated equipment;'' FMVSS No. 110, ''Tire selection and rims;'' FMVSS No. 138, ''Tire Pressure Monitoring Systems;'' FMVSS No. 202a, ''Head restraints;'' FMVSS No. 205, ''Glazing materials;'' FMVSS No. 208, ''Occupant crash protection;'' FMVSS No. 210, ''Seat belt assembly anchorages;'' FMVSS No. 213, ''Child restraint systems;'' FMVSS No. 225; ''Child restraint anchorage systems:'' FMVSS No. 226, ''Ejection mitigation;'' FMVSS No. 303, ''Fuel System Integrity of Compressed Natural Gas Vehicles;'' section 575.103, ''Truck-camper loading;'' section 575.104, ''Uniform tire quality grading standards;'' and section 575.105, ''Vehicle rollover.'' NHTSA is seeking approval from OMB for reinstatement with modification of this previously approved collection. Details of the information collection and modifications are described below.

Part 563—Event data recorders. Section 563.11 requires manufacturers of vehicles equipped with event data recorders (EDRs) to provide a prescribed statement in the owner's manual.[1] However, this statement is provided verbatim in the regulation and, therefore, is not an information collection. Section 563.11 also states that the owner's manual may include additional information about the form, function, and capabilities of the EDR, in supplement to the required statement. This voluntary disclosure of information is an information collection for which NHTSA is seeking approval.

FMVSS No. 108, ''Lamps, reflective devices, and associated equipment.'' This standard requires that certain lamps and reflective devices with certain performance levels be installed on motor vehicles to assure that the roadway is properly illuminated, that vehicles can be readily seen, and the signals can be transmitted to other drivers sharing the road during day, night, and inclement weather. In addition to establishing performance requirements for those lamps and reflective devices, FMVSS No. 108 also contains provisions requiring manufacturers to provide instructions or information on the lighting device.

NHTSA is seeking approval to modify two of these requirements. The first (in S10.18.8.2) requires manufacturers to provide instructions so that owners, as well as traditional vehicle service personnel, can aim their vehicle's Vehicle Headlamp Aiming Device (VHAD) headlamps using equipment that is an integral part of the headlamp system. Because the specific manner in which headlamp aiming is to be performed is not regulated (only the performance of the device is), aiming devices manufactured or installed by different vehicle and headlamp manufacturers may work in significantly different ways. To assure that the VHAD can be correctly aimed, this standard requires that instructions for proper use of VHAD systems be part of the vehicle as a label, or optionally, be placed in the vehicle owner's manual. The second informational requirement NHTSA is seeking to modify (S9.4.1.1) requires manufacturers to provide information regarding how to operate semiautomatic beam switching devices.

On October 12, 2018 (83 FR 51766), NHTSA published a Notice of Proposed Rulemaking (NPRM) proposing performance requirements for adaptive driving beam (ADB) headlighting systems. NHTSA is today publishing a final rule (Docket No. NHTSA–2021–0062) that modifies the informational requirements referred to above.

First, the ADB final rule modifies the requirements regarding providing instructions for VHADs in S10.18.8.2.1. Prior to this final rule, the standard required manufacturers to provide instructions advising that the headlighting system is properly aimed if the appropriate vertical plane (as defined by the vehicle manufacturer) is perpendicular to both the longitudinal axis of the vehicle, and a horizontal plane when the vehicle is on a horizontal surface, and the VHAD is set at ''0'' vertical and ''0'' horizontal. The final rule changes this provision to require manufacturers to provide instructions either on a label permanently affixed to the vehicle adjacent to the VHAD, or in the operator's manual, advising the vehicle owner what to do if the headlighting system requires aiming, using the VHAD.

Second, the ADB final rule modifies the requirements in S9.4.1.1 for manufacturers to provide instructions for operating semiautomatic headlamp switching devices. Prior to this final rule, the standard required manufacturers to provide instructions on how to operate the device correctly,

[1] 49 CFR 563.11(a).

including: How to turn the automatic control on and off; how to adjust the sensitivity control; and any other specific instructions applicable to the device. The final rule modifies this by excluding ADB systems from the requirement to provide instructions on how to adjust the sensitivity control.

FMVSS No. 110, ''*Tire selection and rims.*'' This standard specifies requirements for tire selection to prevent tire overloading. The vehicle's normal load and maximum load on the tire shall not be greater than applicable specified limits. Section 7.2 of FMVSS No. 110 requires certain information in the owner's manual for vehicles equipped with a non-pneumatic spare tire. The owner's manual of the passenger car shall contain, in writing in the English language and in not less than 10 point type, the following information under the heading ''IMPORTANT—USE OF SPARE TIRE'': (a) A statement indicating the information related to appropriate use for the non-pneumatic spare tire including at a minimum the information set forth in S6 (a) and (b) and either the information set forth in S4.3(g) or a statement that the information set forth in S4.3(g) is located on the vehicle placard and on the non-pneumatic tire; (b) An instruction to drive carefully when the non-pneumatic spare tire is in use, and to install the proper pneumatic tire and rim at the first reasonable opportunity; and (c) A statement that operation of the passenger car is not recommended with more than one non-pneumatic spare tire in use at the same time.

FMVSS No. 138, ''*Tire pressure monitoring systems.*'' This standard specifies requirements for a tire pressure monitoring system to warn the driver of an under-inflated tire condition. Its purpose is to reduce the likelihood of a vehicle crash resulting from tire failure due to operation in an under-inflated condition. The standard requires the owner's manual to include specific information on the low-pressure warning telltale and the malfunction indicator telltale. While most of this information is provided verbatim, the statement requires some customization. FMVSS No. 138, also states that the owner's manual may include additional information about the time for the TPMS telltale(s) to extinguish once the low tire pressure condition or the malfunction is corrected. It may also include additional information about the significance of the low tire pressure warning telltale illuminating, a description of corrective action to be undertaken, whether the tire pressure monitoring system functions with the vehicle's spare tire (if provided), and how to use a reset button, if one is provided.

FMVSS No. 202a, ''*Head restraints.*'' This standard specifies requirements for head restraints. The standard, which seeks to reduce whiplash injuries in rear collisions, currently requires head restraints for front outboard designated seating positions in passenger cars and in light multipurpose passenger vehicles, trucks and buses with a gross vehicle weight rating of 4,536 kg or less and specifies requirements for optionally provided rear outboard seat head restraints in the same vehicles. The standard requires that vehicle manufacturers include information in owner's manuals for vehicles manufactured on or after September 1, 2008. The owner's manual must clearly identify which seats are equipped with head restraints. If the head restraints are removable, the owner's manual must provide instructions on how to remove the head restraint by a deliberate action distinct from any act necessary for adjustment, and how to reinstall the head restraints. The owner's manual must warn that all head restraints must be reinstalled to properly protect vehicle occupants. Finally, the owner's manual must describe, in an easily understandable format, the adjustment of the head restraints and/or seat back to achieve appropriate head restraint position relative to the occupant's head.

FMVSS No. 205, ''*Glazing materials.*'' This standard specifies requirement for all glazing material used in windshields, windows, and interior partitions of motor vehicles. Its purpose is to reduce injuries resulting from impact to glazing surfaces, to ensure a necessary degree of transparency in motor vehicle windows for driver visibility, and to minimize the possibility of occupants being thrown through the vehicle windows in collisions. Detailed information regarding the care and maintenance of plastic glazing items, such as a glass-plastic windshield, is required to be placed in the vehicle owner's manual.

FMVSS No. 208, ''*Occupant crash protection.*'' This standard specifies requirements for both active and passive occupant crash protection systems for passenger cars, multipurpose passenger vehicles, trucks, and buses. Certain safety features, such as air bags, or the care and maintenance of air bag systems, are required to be explained to the owner by means of the owner's manual. For example, the owner's manual must describe the vehicle's air bag system and provide precautionary information about the proper positioning of the occupants, including children. The owner's manual must also warn that no objects should be placed over or near the air bag covers. The owner's manual must also describe the operation of any tension relieving and locking features of the provided seat belts. There is also required information about the operation of seat belt assemblies and other information that could total up to about 20 pages in the owner's manual. This material would also need to be kept current with the latest technical information on an annual basis.

FMVSS No. 210, ''*Seat belt assembly anchorages.*'' This standard specifies requirements for seat belt assembly anchorages to ensure effective occupant restraint and to reduce the likelihood of failure in a crash. FMVSS No. 210 requires that manufacturers place the following information in the vehicle owner's manual: (a) An explanation that child restraints are designed to be secured by means of the vehicle's seat belts, and (b) a statement alerting vehicle owners that children are always safer in the rear seat.

FMVSS No. 213; ''*Child restraint systems.*'' This standard specifies requirements for built-in child restraint systems and requires vehicle manufacturers provide consumers with information about the operation and do's and don'ts in its owner's manual.

FMVSS No. 225; ''*Child restraint anchorage systems.*'' This standard establishes requirements for child restraint anchorage systems to ensure their proper location and strength for the effective securing of child restraints, to reduce the likelihood of the anchorage systems' failure, and to increase the likelihood that child restraints are properly secured and thus more fully achieve their potential effectiveness in motor vehicles. The vehicle owner's manual must provide written instructions, in English, for using the tether anchorages and the child restraint anchorage system in the vehicle. Instructions must at a minimum indicate which seating positions in the vehicle are equipped with tether anchorages and child restraint anchorage systems, explain the meaning of markings provided to locate the lower anchorages, and include instructions that provide a step-by-step procedure (including diagrams) for properly attaching a child restraint system's tether strap to the tether anchorages.

FMVSS No. 226, ''*Ejection mitigation.*'' This standard establishes vehicle requirements intended to reduce the partial and complete ejection of vehicle occupants through side windows in crashes, particularly rollover crashes. The standard applies to passenger cars, and to multipurpose

passenger vehicles, trucks, and buses with a gross vehicle weight rating of 4,536 kg (10,000 pounds) or less. Written information must be provided that describes any ejection mitigation countermeasure that deploys in the event of a rollover and a discussion of the readiness indicator with a list of the elements of the system being monitored by the indicator, a discussion of the purpose and location of the telltale, and instructions to the consumer on the steps to take if the telltale is illuminated.

FMVSS No. 303, ''*Fuel System Integrity of Compressed Natural Gas Vehicles.*'' This standard specifies requirements for the integrity of motor vehicle fuel systems using compressed natural gas (CNG), including the CNG fuel systems of bi-fuel, dedicated, and dual fuel CNG vehicles. This regulation requires manufacturers to permanently label CNG vehicles, near the vehicle refueling connection, with service pressure information and the statement ''See instructions on fuel container for inspection and service life.'' Manufacturers of CNG vehicles must also provide a first purchaser this information in either an owner's manual or a one-page document.

Section 575.103, ''*Truck-camper loading.*'' This regulation requires manufacturers of slide-in campers to affix to each camper a label that contains information relating to identification and proper loading of the camper and to provide more detailed loading information in the owner's manual. This regulation also requires manufacturers of trucks that would accommodate slide-in campers to specify the cargo weight ratings and the longitudinal limits within which the center of gravity for the cargo weight rating should be located.

Section 575.104, ''*Uniform tire quality grading standards.*'' This regulation requires manufacturers of motor vehicles to inform the drivers of the type and quality of the tires with which their vehicles are equipped. Manufacturers must include in the vehicle owner's manual a list of all possible grades for traction and temperature resistance and restate verbatim the explanation for each performance area specified in § 575.104 Figure 2, Part II. The information must contain a statement referring the reader to the tire sidewall for the specific tire grades for the tires with which the vehicle is equipped.

Section 575.105, ''*Vehicle rollover.*'' This regulation requires manufacturers of utility vehicles [2] to alert the drivers of those vehicles that they have a higher possibility of rollover than other vehicle types and to advise them of steps that can be taken to reduce the possibility of rollover and/or to reduce the likelihood of injury in a rollover. The owner's manual must include a discussion of the vehicle design features which cause this type of vehicles to be more likely to rollover (*e.g.,* higher center of gravity) and a discussion of the driving practices that can reduce the risk of a rollover (*e.g.,* avoiding sharp turns at excessive speed).

Description of the Need for the Information and Proposed Use of the Information

The purpose of requiring that certain information be provided in manuals is to ensure owners and operators are provided with readily accessible important information about critical components of their vehicles, such as the performance of their vehicle or instructions for proper operation. The Federal program for reducing highway fatalities, injuries and crashes is likely to be adversely affected if the information is not collected, since consumers would not be made readily aware of certain important safety provisions that apply to critical components of their vehicles and would not have a readily accessible source of information when circumstances require such information.

Earlier 60-Day Notice

On May 12, 2021, NHTSA published a notice in the **Federal Register** (86 FR 26128) soliciting comments on reinstating the collection of information (Consolidated Vehicle Owner's Manual Requirements for Motor Vehicles and Motor Vehicle Equipment). NHTSA received one comment from the Alliance for Automotive Innovation (Auto Innovators) requesting that NHTSA consider the development of new compliance options to permit digital format owners' manuals in lieu of hard copy (printed) owners' manuals. However, as no such compliance option currently exists, the Auto Innovators' request to change the FMVSS is outside of the scope of this reinstatement request. NHTSA will consider the request for future Agency action.

Affected Public: Vehicle manufacturers.

Estimated Number of Respondents: 52.

Frequency: On occasion.

Number of Responses: 52.

Estimated Total Annual Burden Hours: 8,628.

NHTSA estimates the burden for each of the information collections individually based on the estimated number of manufacturers expected to need to comply with the requirements and the estimated time each manufacturer spends each year complying with the requirements to put specific information into owner's manual. To calculate manufacturer burden, NHTSA has estimated the time to compile, revise, and review information for owner's manuals by vehicle model. This estimate is informed by the estimated number of vehicle models that would be subject to the requirements and also the expected number of new models or models undergoing changes that would necessitate updates to owner's manuals.

Part 563—Event Data Recorders. NHTSA estimates that the vehicle manufacturers that voluntarily provide this additional information in the owner's manual incur minimal burden. We conservatively estimate that half of the 406 vehicle models for light duty vehicles will have owner's manuals that contain this supplemental information and that the burden for updating and reviewing this information will be 1 hour per model line. This would result in 203 annual burden hours (203 vehicle model lines × 1 hour of time × 1 manual per model).

FMVSS No. 108, ''*Lamps, reflective devices, and associated equipment.*''

Vehicle Headlamp Aiming Device

Considering that we anticipate adaptive driving beam systems to include a horizontal vehicle headlamp aiming device (VHAD), it is estimated 50% of models will offer adaptive driving beam headlighting systems on at least one trim level that will include a VHAD. Vehicles equipped with VHAD headlamps, for one model line with new VHAD headlamps, the time to collect the required information, prepare technical input, and review for accuracy of the required information placed for publication in the owner's manual template is estimated to be 4 hours per manual. In a carry-over vehicle owner's manual, we estimate that it would take a vehicle manufacturer 1 hour to review the required information for continued accuracy relating to VHAD systems. Section 571.108 permits each manufacturer a choice in placing headlamp aiming instruction in the owner's manual or on a label affixed to the vehicle. We estimate about half of the VHAD aiming applications would be

[2] 49 CFR 575.105 states *Utility vehicles* means multipurpose passenger vehicles (other than those which are passenger car derivatives) which have a wheelbase of 110 inches or less and special features for occasional off-road operation.

on labels attached to the VHAD, with the remainder (50%) using information in the owner's manual to convey the necessary information. Therefore, the number of annual burden hours imposed on manufacturers whose vehicles are subject to FMVSS No. 108 would be determined from the number of model lines produced annually (of which an estimated 25% are new and 75% are non-new, a repeat of previous years' model lines) multiplied by the portion of vehicles equipped with VHAD headlamps multiplied by the estimated number of hours required to assemble the required information (estimated to be 4 hours of review for new vehicles and 1 hour to review the information for non-new models). The annual burden hours required by FMVSS No. 108's VHAD section in the owner's manual is 383 hours ((438 models × 0.5 use VHAD × 0.25 new models × 4 hours/model) + (438 models × 0.5 use VHAD × 0.75 non-new models × 1 hour/model)).

SemiAutomatic Beam Switching Devices

We estimate that approximately 80% of new vehicle models include a semiautomatic beam switching device (either traditional semiautomatic beam switching or adaptive driving beam) on at least one trim level for the U.S. market. For new model vehicles equipped with semiautomatic beam switching devices (SABs), the time to collect the required information, prepare technical input, and review for accuracy of the required information placed for publication in the owner's manual template is estimated to be 4 hours per manual. In a carry-over vehicle owner's manual, we estimate that it would take a vehicle manufacturer 1 hour to review the required information for continued accuracy relating to semiautomatic beam switching devices. Section 571.108 requires manufacturers to provide instructions on how to operate semiautomatic beam switching devices if they are installed on the vehicle. The number of annual burden hours imposed on manufacturers whose vehicles are subject to FMVSS No. 108 would be determined from the number of model lines produced annually (of which an estimated 25% are new and 75% are non-new, a repeat of previous years' model lines) multiplied by the portion of vehicles equipped with semiautomatic beam switching devices multiplied by the estimated number of hours required to assemble the required information (estimated to be 4 hours of review for new models and 1 hour to review the information for non-new models). The annual burden hours required by FMVSS No. 108's semiautomatic beam switching device section in the owner's manual is 613 hours ((438 models × 0.8 offer SABs × 0.25 new models × 4 hours/model) + (438 models × 0.8 offer SABs × 0.75 non-new models × 1 hour/model)).

FMVSS No. 110, ''*Tire selection and rims.*'' Currently, manufacturers do not equip current passenger vehicles, trucks, buses, trailers, or motorcycles with non-pneumatic spare tires. If vehicles were equipped with non-pneumatic spare tires, the number of annual burden hours imposed on manufacturers who choose to equip their vehicles with this equipment would be determined from the number of model lines produced annually (of which an estimated 25% are new and 75% are on-new, a repeat of previous years' model lines) multiplied by the portion of vehicle models equipped with non-pneumatic spare tires multiplied by the estimated number of hours required to assemble the required information (estimated to be 4 hours of review for new vehicles and 1 hour to review the information for non-new vehicles). The product of these factors would provide the number of hours required by manufacturers to produce necessary information to place into an owner's manual ''master'' for printing. Because manufacturers do not equip current passenger vehicles, trucks, buses, trailers, or motorcycles with non-pneumatic spare tires, NHTSA estimates the hour burden as 0 hours.

FMVSS No. 138, ''*Tire pressure monitoring systems.*'' The information required by FMVSS No. 138 to be included in the owner's manual is provided verbatim and may be taken from the Federal regulation in its entirety. FMVSS No. 138, also states that the owner's manual may include additional information about the low-pressure telltale and the malfunction indicator telltale. NHTSA estimates the burden to be 1 hour for the respondents to compile, review, and revise the additional information. There is an average of 438 model lines each year that include tire pressure monitoring information in the owner's manual. Therefore, NHTSA estimates the total annual burden hours for § 571.138 to be 438 hours (438 model lines × 1 manual per model × 1 hour).

FMVSS No. 202a, ''*Head restraints.*'' It is estimated that 438 model lines need to be reviewed annually, but only a fraction (25 percent) need major revision each year. It is further estimated that it would take 5 hours to complete the major revisions. The remaining fraction of model lines (75 percent) only require reverification of existing information. The total annual burden hours are estimated to be 876 hours ((438 model lines × 0.25 needing revision × 5 hours) + (438 model lines × 0.75 needing revision × 1 hour)).

FMVSS No. 205, ''*Glazing materials.*'' It is estimated that the burden to provide information in the owner's manual for detailed care and maintenance is minimal because manufacturers already provide this type of information in the vehicle cleaning and maintenance section of the owner's manual. NHTSA estimates a burden for each manual of 1 hour because manufacturers would need to verify that detailed care and maintenance information has been included in their cleaning and maintenance section of the owner's manual. The annual estimated burden from § 571.205 is 176 hours (176 model lines × 1 manual per model × 1 hour).

FMVSS No. 208, ''*Occupant crash protection.*'' A conservative estimated burden to produce the required text and information is 16 hours (or 2 days). It is also estimated that a fraction (25 percent) of the model lines would require updates annually. The remaining fraction of model lines (75 percent) only require reverification (1-hour burden) of existing information. This would result in 2,750 annual burden hours ((579 vehicle model lines × 0.25 percent that need updating × 16 hours of time) + (579 model lines × 0.75 needing revision × 1 hour)).

FMVSS No. 210, ''*Seat belt assembly anchorages.*'' It is estimated that it would take a vehicle manufacturer no more than 1 hour per vehicle model line to assemble all of the FMVSS No. 210 information for inclusion in the owner's manual. This would result in 438 annual burden hours (438 vehicle model lines × 1 manual per model × 1 hour).

FMVSS No. 213, ''*Child restraint systems.*'' NHTSA estimates that the burden associated with compiling, revising, and reviewing FMVSS No. 213 information for owner's manuals will be minimal. This information must also be made available on strategically placed labels within the vehicles, in addition to the vehicle's owner's manual. Thus, it is assumed that the burden hours would be minimal since the information is already available from the information required to produce the labels. NHTSA estimates that there are very few vehicle models that are equipped with built-in child restraints. A conservative estimate is that no more than 20 models would have built-in child restraints. This would result in 20 annual burden hours (20 vehicle model lines × 1 manual per model × 1 hour).

FMVSS No. 225, ''*Child restraint anchorage systems.*'' NHTSA estimates that it takes a vehicle manufacturer no more than 5 hours to compile the required material and that only a fraction (25 percent) would need major revisions each year. The remaining fraction of model lines (75 percent) only require reverification (1-hour burden) of existing information. This would result in 876 annual burden hours ((438 vehicle model lines × 1 manual per model × 0.25 (percent requiring major revisions) × 5 hours of time) + (438 model lines × 1 manual per model × 0.75 (percent requiring reverification) × 1 hour)).

FMVSS No. 226, ''*Ejection mitigation.*'' NHTSA estimates that it takes a vehicle manufacturer no more than 8 hours to compile the required material and it is estimated that a fraction (25 percent) would need major revisions each year. The remaining fraction of model lines (75 percent) only require reverification (1-hour burden) of existing information. This would result in 1,205 annual burden hours ((438 vehicle model lines × 1 manual per model × 0.25 (percent that need major revision) × 8 hours of time) + (438 model lines × 1 manual per model × 0.75 (percent needing reverification) × 1 hour)).

FMVSS No. 303, ''*Fuel System Integrity of Compressed Natural Gas Vehicles.*'' Vehicle manufacturers must provide specific information to the consumer dealing with CNG vehicles' fuel systems. The information must be available on the fuel container of the vehicle and must also be made available in the Vehicle owner's manual. For the purposes of this justification, NHTSA assumes that all the necessary information is already available from the information required to produce the fuel container labels. Therefore, there is a slight burden of 1 hour for respondents to include this information in their owner's manuals. This would result in 18 annual burden hours (18 vehicle model lines × 1 manual per model × 1 hour of time).

Section 575.103, ''*Truck-camper loading.*'' The information required for the owner's manuals under section 575.103 is developed by manufacturers as part of their routine engineering development for their vehicles. The figures to include in truck and slide-in camper owner's manuals are provided in the regulation. Therefore, there is a slight 1-hour burden for respondents to include this information in their owner's manuals. This would result in 35 annual burden hours (35 vehicle model lines × 1 manual per model × 1 hour of time).

Section 575.104, ''*Uniform tire quality grading standards.*'' This requirement directs manufacturers to provide a statement in the owner's manual, that is provided in the regulation almost in its entirety or equivalent form. This regulation requires manufacturers of motor vehicles to include in the vehicle owner's manual a list of all possible grades for traction and temperature resistance and restate verbatim the explanation for each performance area specified in section 575.104 Figure 2, Part II. A statement is provided in the regulation which manufacturers shall include, in its entirety or equivalent form, in the owner's manual. Therefore, NHTSA estimates that the burden for compiling, revising, and reviewing this information will only take 1 hour per model each year. This results in 579 annual burden hours (579 vehicle model lines × 1 manual per model × 1 hour of time).

Section 575.105, ''*Vehicle rollover.*'' To comply with Section 575.105, manufacturers of utility vehicles must include, in the owner's manual, a discussion of the vehicle design features which cause this type of vehicles to be more likely to rollover (*e.g.,* higher center of gravity) and a discussion of the driving practices that can reduce the risk of a rollover (*e.g.,* avoiding sharp turns at excessive speed). NHTSA estimates that because this information should be readily available, that it will take manufacturers 1 hour each year to compile, revise, and review the information for inclusion in the owner's manuals. This would result in 18 annual burden hours (18 vehicle model lines × 1 manual per model × 1 hour of time).

The labor costs associated with these burden hours are derived by using hourly labor rates published by the Bureau of Labor Statistics (BLS). For the burden hours associated with compiling the owner's manual information required under the FMVSSs, NHTSA uses the mean hourly wage of $35.41 per hour for ''Technical Writers'' (occupational code 27–3042).[3] BLS estimates that hourly wages represent approximately 70.2% of total compensation for private industry workers.[4] Therefore, NHTSA estimates the labor cost associated with less senior Technical Writers to be $50.44 per hour. The total labor cost associated with the burden hours of this information collection are determined by multiplying the annual burden hours by $50.44; therefore, the total annual labor costs are estimated to be $435,171 in each of the next three years.

The table below summarizes the total hour burden and associated labor costs estimates.

TABLE 1—ESTIMATED HOUR BURDEN AND ASSOCIATED LABOR COSTS

Part/section	Brief title	Estimated total annual burden hours	Estimated total annual labor costs at $50.44/hour
563	Event Data Recorders	203	$10,239
571.108	Lighting-VHAD	383	19,319
571.108	Lighting-SABs	613	30,920
571.110	Tire Selection and Rims	0	0
571.138	Tire Pressure Monitoring	438	22,093
571.202a	Head Restraints	876	44,185
571.205	Glazing	176	8,877
571.208	Crash Protection	2,750	138,710
571.210	Seat Belt Anchors	438	22,093
571.213	Child Restraints	20	1,009
571.225	Child Restraint Anchorages	876	44,185

[3] May 2019 National Industry-Specific Occupational Employment and Wage Estimates, NAICS 336100—Motor Vehicle Manufacturing, *https://www.bls.gov/oes/current/naics4_336100.htm#27-0000.*

[4] *https://www.bls.gov/news.release/pdf/ecec.pdf.* Accessed March 20, 2020. Table 1. Employer Costs for Employee Compensation by ownership [March 2020], *https://www.bls.gov/news.release/ecec.t01.htm.*

TABLE 1—ESTIMATED HOUR BURDEN AND ASSOCIATED LABOR COSTS—Continued

Part/section	Brief title	Estimated total annual burden hours	Estimated total annual labor costs at $50.44/hour
571.226	Ejection Mitigation	1,205	60,755
571.303	CNG Fuel Systems	18	908
575.103	Truck-Camper Loading	35	1,765
575.104	Tire Quality	579	29,205
575.105	Utility Vehicles	18	908
Totals		8,628	435,171

Estimated Total Annual Burden Cost: $7,971,461.

NHTSA estimates that the only costs, other than labor costs associated with labor hours, for this information collection are costs associated with printing the owner's manuals. NHTSA has estimated these costs by multiplying the estimated number owner's manuals that will be produced by the number of words provided in the owner's manual in response to the information collection. This estimate is then multiplied by the estimated cost per word for printing.

Part 563—Event Data Recorders. NHTSA estimates that the word content in the owner's manual required by Part 563 would be 100 text words. Hence, the cost burden to vehicle manufacturers is estimated to be $30,566.25 (17,100,000 total vehicles × 50% of vehicles including added language in the owner's manuals × 100 text words × 1.1 production factor × 0.25 printing factor × $0.00013 per word). Cost burdens for this regulation were not included in the previous information collection request.

FMVSS No. 108, ''Lamps, reflective devices, and associated equipment.'' The ADB final rule amended the standard with specific instructions for using the VHAD to aim ADB headlighting systems. We amended the VHAD requirements from specifically saying that it should be aimed at zero to a more general phrase that tells the owner what they should do when the headlamps need aimed horizontally. We expect this to decrease the words needed to convey the required information from 500 words to 250 words.

The printing cost burden for these owner's manuals would be the number of vehicles produced annually multiplied by the portion of vehicles equipped with VHAD headlamps, multiplied by certain printing factors (an estimated 250 text words required per owner's manual, a 1.1 multiplier to account for aftermarket manuals, a 0.25 printing factor, and a $0.00013 cost per word). The annual cost burden to the respondents to include the information required by FMVSS No. 108's VHAD section in the owner's manual is $38,208 (17,100,000 vehicles × 0.5 use VHAD × 0.5 provide info in manual × 250 words of text × 1.1 production factor × 0.25 printing factor × $0.00013 per word).

The printing cost burden for these owner's manuals would be the number of vehicles produced annually multiplied by the portion of vehicles equipped with semiautomatic beam switching devices, multiplied by certain printing factors (an estimated 500 text words required per owner's manual, a 1.1 multiplier to account for aftermarket manuals, a 0.25 printing factor, and a $0.00013 cost per word). The annual cost burden to the respondents to include the information required by FMVSS No. 108's semiautomatic beam switching device section in the owner's manual is $244,530 (17,100,000 vehicles × 0.8 use SABs × 500 words of text × 1.1 production factor × 0.25 printing factor × $0.00013 per word).

FMVSS No. 110, ''Tire selection and rims.'' The printing cost burden for these owner's manuals would be the number of vehicles produced annually multiplied by the portion of vehicles equipped with non-pneumatic spare tires, multiplied by certain printing factors (an estimated 500 text words required per owner's manual, a 1.1 multiplier to account for aftermarket manuals, a 0.25 printing factor, and a $0.00013 cost per word). Because manufacturers do not equip current passenger vehicles, trucks, buses, trailers, or motorcycles with non-pneumatic spare tires, NHTSA estimates the printing cost to be $0.

FMVSS 571.138, ''Tire pressure monitoring systems.'' The recurring cost to the respondents to include the information required by section 571.138 is based on the typical length of the tire pressure monitoring system information that is required, including depictions of the low-pressure telltale and, if equipped, a separate malfunction indicator telltale. NHTSA estimates that this information is equivalent to 400 words of text for the average owner's manual. NHTSA estimates there are 17,100,000 new vehicles each year requiring tire pressure monitoring system information in the owner's manual. The annual cost burden to the respondents to include the information required by FMVSS No. 138 is $244,530 (17,100,000 vehicles × 400 words of text × 1.1 production factor × 0.25 printing factor × $0.00013 per word).

FMVSS 571.202a, ''Head restraints.'' NHTSA estimates that it would take approximately 4 pages of the owner's manual to disclose the required head restraint information. Assuming that a page of owner's manual information represents a typical density of 300 words per page, manufacturers would need to publish about 1,200 words of instructions or cautioning information for the average owner's manual. NHTSA estimates there are 17,100,000 new vehicles each year requiring head restraint information in the owner's manual. Therefore, the total recurring cost estimate is $733,590 (17,100,000 vehicles × 1,200 words of text × 1.1 production factor × 0.25 printing factor × $0.00013 per word).

FMVSS No. 205, ''Glazing materials.'' The word count required in the owner's manual is estimated to be 210 words. Only buses and low speed vehicles currently use plastic type glazing. Therefore, NHTSA estimates there are 17,400 new vehicles each year that include glazing information in the owner's manual. The annual cost burden to the respondents to include the information required by FMVSS No. 205 is estimated to be $130.63 (17,400 vehicles × 210 words of text × 1.1 production factor × 0.25 printing factor × $0.00013 per word).

FMVSS No. 208, ''Occupant crash protection.'' NHTSA estimates that the word content in the owner's manual required by FMVSS No. 208 would be 5,400 text words. Hence, the cost burden to vehicle manufacturers is estimated to be $3,397,680 (17,600,000

total vehicles × 5,400 text words × 1.1 production factor × 0.25 printing factor × $0.00013 per word).

FMVSS No. 210, ''*Seat belt assembly anchorages.*'' It is estimated that the word content in the owner's manual required by FMVSS No. 210 would be 400 text words. Hence, the cost burden to vehicle manufacturers is estimated to be $244,530 (17,100,000 total vehicles × 400 text words × 1.1 production factor × 0.25 printing factor × $0.00013 per word).

FMVSS No. 213, ''*Child restraint systems.*'' It is estimated that the recurring information required for child safety in the owner's manual would be 500 text words. NHTSA estimates that, conservatively, 5% of vehicles may be in lines that offer built in child restraints. Therefore, NHTSA estimates that there would be 880,000 vehicles with owner's manual containing information provided in response to this information collection. Hence, the cost burden to vehicle manufacturers is estimated to be $15,730 (880,000 total vehicles × 500 text words × 1.1 production factor × 0.25 printing factor × $0.00013 per word).

FMVSS No. 225, ''*Child Restraint Anchorage Systems.*'' NHTSA estimates that the word content in the owner's manual required by FMVSS No. 225 would be 1,500 text words. Hence, the cost burden to vehicle manufacturers is estimated to be $943,800 (17,600,000 total vehicles × 1,500 text words × 1.1 production factor × 0.25 printing factor × $0.00013 per word).

FMVSS No. 226, ''Ejection Mitigation.'' NHTSA estimates that the word content in the owner's manual required by FMVSS No. 226 would be 3,000 text words. Hence, the cost burden to vehicle manufacturers is estimated to be $1,833,975 (17,100,000 total vehicles × 3,000 text words × 1.1 production factor × 0.25 printing factor × $0.00013 per word).

FMVSS No. 303, ''*Fuel System Integrity of Compressed Natural Gas Vehicles.*'' NHTSA estimates that no more than 50 words are required in the owner's manual to comply with the requirements in FMVSS No. 303. There are conservatively 20,000 CNG vehicles produced annually. Hence, the cost burden to CNG vehicle manufacturers is estimated to be $35.75 (20,000 total units × 50 text words × 1.1 production factor × 0.25 printing factor × $0.00013 per word). Cost burdens for this regulation were not included in the previous information collection request.

Section 575.103, ''*Truck-camper loading.*'' It is estimated that 480 words are required in the owner's manual to comply with § 575.103. There are approximately 2,300,000 pickup trucks and 11,000 truck camper units produced annually. These total to an annual production of 2,311,000 units. Hence, the cost burden to vehicle manufacturers is estimated to be $39,656.76 (2,311,000 total units × 480 text words × 1.1 production factor × 0.25 printing factor × $0.00013 per word).

Section 575.104, ''*Uniform tire quality grading standards.*'' NHTSA estimates that 390 words are minimally required in the owner's manual to comply with § 575.104. There are approximately 13,857,300 vehicles covered by this regulation. Hence, the cost burden to vehicle manufacturers is estimated to be $193,205.41 (13,857,300 total vehicles × 390 text words × 1.1 production factor × 0.25 printing factor × $0.00013 per word). Cost burdens for this regulation were not included in the previous information collection request.

Section 575.105, ''*Vehicle rollover.*'' NHTSA estimates that 117 words are minimally required in the owner's manual to comply with section 575.105. There are approximately 2,700,000 utility vehicles with 4-wheel drive and a wheelbase of 110 inches or less. Therefore, the cost burden to vehicle manufacturers is estimated to be $11,293.43 (2,700,000 total vehicles × 117 text words × 1.1 production factor × 0.25 printing factor × $0.00013 per word). Cost burdens for this regulation were not included in the previous information collection request.

The total annual cost to the respondents for information published in vehicles' owner's manuals is summarized in the table below.

TABLE 2—ESTIMATED PRINTING COSTS

Part/section	Brief title	Estimated total costs to respondents
563	Event Data Recorders	$30,566
571.108	Lighting-VHAD	38,208
571.108	Lighting-SABs	244,530
571.110	Tire Selection and Rims	0
571.138	Tire Pressure Monitoring Systems	244,530
571.202a	Head Restraints	733,590
571.205	Glazing	131
571.208	Occupant Crash Protection	3,397,680
571.210	Seat Belt Assembly Anchors	244,530
571.213	Child Restraints Systems	15,730
571.225	Child Restraint Anchorage Systems	943,800
571.226	Ejection Mitigation	1,833,975
571.303	Fuel System Integrity of Compressed Natural Gas Vehicles	36
575.103	Truck-Camper Loading	39,657
575.104	Uniform Tire Quality Grading Standards	193,205
575.105	Vehicle Rollover	11,293
Total Costs		7,971,461

Public Comments Invited: You are asked to comment on any aspects of this information collection, including (a) whether the proposed collection of information is necessary for the proper performance of the functions of the Department, including whether the information will have practical utility; (b) the accuracy of the Department's estimate of the burden of the proposed information collection; (c) ways to enhance the quality, utility and clarity of the information to be collected; and (d) ways to minimize the burden of the collection of information on respondents, including the use of automated collection techniques or other forms of information technology.

The agency will summarize and/or include your comments in the request for OMB's clearance of this information collection.

Authority: The Paperwork Reduction Act of 1995; 44 U.S.C. Chapter 35, as amended; 49 CFR 1.49; and DOT Order 1351.29.

Raymond R. Posten,

Associate Administrator for Rulemaking.

[FR Doc. 2022–02453 Filed 2–18–22; 8:45 am]

BILLING CODE 4910–59–P

DEPARTMENT OF VETERANS AFFAIRS

National Research Advisory Council; Notice of Meeting

The Department of Veterans Affairs (VA) gives notice under the Federal Advisory Committee Act, 5 U.S.C. App. 2, that the National Research Advisory Council will hold a meeting on Wednesday, May 4, 2022, by Webex. The teleconference number is 1–404–397–1596, conference ID 199 811 6717 or the meeting link is *https://veteransaffairs.webex.com/veteransaffairs/j.php?MTID=m000894cb2081a6845cd69505d4ba34e5.* The meeting will convene at 11:00 a.m. and end at 2:00 p.m. Eastern daylight time. This meeting is open to the public.

The purpose of the National Research Advisory Council is to advise the Secretary on research conducted by the Veterans Health Administration, including policies and programs targeting the high priority of Veterans' health care needs.

On May 4, 2022, the agenda will include introduction of new NRAC members, discussion of calendar year 2022 goals; follow up discussion of diversity, equity, and inclusion activities in response to the NRAC recommendations; and discussion of subcommittee activities. No time will be allocated at this meeting for receiving oral presentations from the public. Members of the public wanting to attend, have questions or presentations to present may contact Rashelle Robinson, Designated Federal Officer, Office of Research and Development (14RD), Department of Veterans Affairs, 810 Vermont Avenue NW, Washington, DC 20420, at 202–443–5768, or *Rashelle.robinson@va.gov no later than close of business on April 29, 2022.* All questions and presentations will be presented during the public comment section of the meeting. Any member of the public seeking additional information should contact Rashelle Robinson at the above phone number or email address noted above.

Dated: February 16, 2022.

LaTonya L. Small,

Federal Advisory Committee Management Officer.

[FR Doc. 2022–03683 Filed 2–18–22; 8:45 am]

BILLING CODE P

DEPARTMENT OF VETERANS AFFAIRS

Advisory Committee on the Readjustment of Veterans; Notice of Meeting

The Department of Veterans Affairs (VA) gives notice under the Federal Advisory Committee Act, 5 U.S.C. App. 2, that the Advisory Committee on the Readjustment of Veterans will hold a meeting virtually. The meeting will begin and end as follows:

Date:	Time:	Open session:
March 21, 2022	4:00 p.m. to 5:00 p.m. EST.	Yes.

The meeting session is open to the public.

The purpose of the Committee is to advise the Department of Veterans Affairs (VA) regarding the provision by VA of benefits and services to assist Veterans in the readjustment to civilian life. In carrying out this duty, the Committee shall take into account the needs of Veterans who served in combat theaters of operation. The Committee assembles, reviews, and assesses information relating to the needs of Veterans readjusting to civilian life and the effectiveness of VA services in assisting Veterans in that readjustment.

The Committee, comprised of 13 subject matter experts, advises the Secretary, through the VA Readjustment Counseling Service, on the provision by VA of benefits and services to assist Veterans in the readjustment to civilian life. In carrying out this duty, the Committee assembles, reviews, and assesses information relating to the needs of Veterans readjusting to civilian life and the effectiveness of VA services in assisting Veterans in that readjustment, specifically taking into account the needs of Veterans who served in combat theaters of operation.

On March 21, 2022, the agenda will include review of the 22nd report, from 4:00 p.m.–5:00 p.m., For public members wishing to join the meeting, please use the following Webex link: *https://veteransaffairs.webex.com/wbxmjs/joinservice/sites/veteransaffairs/meeting/download/c41487c816b84236bc91a829e3951d67?siteurl=veteransaffairs&MTID=m097fc4b4be237385225ea2094a27f547.*

No time will be allotted for receiving oral comments from the public; however, the committee will accept written comments from interested parties on issues outlined in the meeting agenda or other issues regarding the readjustment of Veterans. Parties should contact Mr. Richard Barbato via email at *VHA10RCSAction@va.gov,* or by mail at Department of Veterans Affairs, Readjustment Counseling Service (10RCS), 810 Vermont Avenue, Washington, DC 20420. Any member of the public seeking additional information should contact Mr. Barbato at the phone number or email addressed noted above.

Dated: February 16, 2022.

Jelessa M. Burney,

Federal Advisory Committee Management Officer.

[FR Doc. 2022–03672 Filed 2–18–22; 8:45 am]

BILLING CODE P

FEDERAL REGISTER

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Part II

Environmental Protection Agency

40 CFR Part 52
Air Plan Disapproval; Arkansas, Louisiana, Oklahoma, and Texas; Interstate Transport of Air Pollution for the 2015 8-Hour Ozone National Ambient Air Quality Standards; Proposed Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA–R06–OAR–2021–0801, EPA–HQ–OAR–2021–0663; FRL–9338–01–R6]

Air Plan Disapproval; Arkansas, Louisiana, Oklahoma, and Texas; Interstate Transport of Air Pollution for the 2015 8-Hour Ozone National Ambient Air Quality Standards

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: Pursuant to the Federal Clean Air Act (CAA or the Act), the Environmental Protection Agency (EPA or Agency) is proposing to disapprove State Implementation Plan (SIP) submittals from Arkansas, Louisiana, Oklahoma and Texas regarding interstate transport for the 2015 8-hour ozone national ambient air quality standard (NAAQS). This provision requires that each state's SIP contain adequate provisions to prohibit emissions from within the state from significantly contributing to nonattainment or interfering with maintenance of the NAAQS in other states. The ''good neighbor'' or ''interstate transport'' requirement is part of the broader set of ''infrastructure'' requirements, which are designed to ensure that the structural components of each state's air quality management program are adequate to meet the state's responsibilities under the CAA. This disapproval, if finalized, will establish a 2-year deadline for the EPA to promulgate a Federal Implementation Plan (FIP) to address the relevant interstate transport requirements, unless the EPA approves a subsequent SIP submittal that meets these requirements. Disapproval does not start a mandatory sanctions clock.

DATES: Written comments must be received on or before April 25, 2022.

ADDRESSES: You may send comments, identified as Docket No. EPA–R06–OAR–2021–0801, by any of the following methods: Federal eRulemaking Portal at *https://www.regulations.gov* following the online instructions for submitting comments or via email to *fuerst.sherry@epa.gov.* Include Docket ID No. EPA–R06–OAR–2021–0801 in the subject line of the message.

Instructions: All comments submitted must include the Docket ID No. for this rulemaking. Comments received may be posted without change to *https://www.regulations.gov/,* including any personal information provided. For detailed instructions on sending comments and additional information on the rulemaking process, see the ''Public Participation'' heading of the **SUPPLEMENTARY INFORMATION** section of this document. Out of an abundance of caution for members of the public and our staff, the EPA Docket Center and Reading Room are open to the public by appointment only to reduce the risk of transmitting COVID–19. Our Docket Center staff also continues to provide remote customer service via email, phone, and webform. For further information on the EPA Docket Center services and the current status, please visit us online at *https://www.epa.gov/dockets.*

FOR FURTHER INFORMATION CONTACT: Sherry Fuerst, EPA Region 6 Office, AR–SI, 214–665–6454, *fuerst.sherry@epa.gov.* We encourage the public to submit comments via *https://www.regulations.gov,* as there will be a delay in processing mail and no courier or hand deliveries will be accepted. Please call or email the contact above if you need alternative access to material indexed but not provided in the docket.

SUPPLEMENTARY INFORMATION: *Public Participation:* Submit your comments, identified by Docket ID No. EPA–R06–OAR–2021–0801, at *https://www.regulations.gov* (our preferred method), or the other methods identified in the **ADDRESSES** section. Once submitted, comments cannot be edited or removed from the docket. The EPA may publish any comment received to its public docket. Do not submit to the EPA's docket at *https://www.regulations.gov* any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. The EPA will generally not consider comments or comment contents located outside of the primary submission (*i.e.,* on the web, cloud, or other file sharing system).

There are two dockets supporting this action, EPA–R06–OAR–2021–0801 and EPA–HQ–OAR–2021–0663. Docket No. EPA–R06–OAR–2021–0801 contains information specific to Arkansas, Louisiana, Oklahoma, and Texas, including the notice of proposed rulemaking, submittals from the states, and the EPA Region 6 2015 8-Hour Ozone Transport SIP Proposal Technical Support Document (EPA Region 6 TSD). Docket No. EPA–HQ–OAR–2021–0663 contains additional modeling files, emissions inventory files, technical support documents, and other relevant supporting documentation regarding interstate transport of emissions for the 2015 8-hour ozone NAAQS which are being used to support this action, including Preparation of Emissions Inventories for the 2016v2 North American Emissions Modeling Platform, and Air Quality Modeling TSD for 2015 ozone NAAQS Transport SIP Proposed Actions. All comments regarding information in either of these dockets are to be made in Docket No. EPA–R06–OAR–2021–0801. For additional submission methods, please contact Sherry Fuerst, 214–665–6454, *fuerst.sherry@epa.gov.* For the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit *https://www.epa.gov/dockets/commenting-epa-dockets.* Due to public health concerns related to COVID–19, the EPA Docket Center and Reading Room are open to the public by appointment only. Our Docket Center staff also continues to provide remote customer service via email, phone, and webform. For further information and updates on EPA Docket Center services, please visit us online at *https://www.epa.gov/dockets.*

The EPA continues to carefully and continuously monitor information from the Centers for Disease Control and Prevention (CDC), local area health departments, and our Federal partners so that we can respond rapidly as conditions change regarding COVID–19.

The index to the dockets for this action, Docket No. EPA–R06–OAR–2021–0801 and EPA–HQ–OAR–2021–0663, are available electronically at *https://www.regulations.gov.* While all documents in the docket are listed in the index, some information may not be publicly available due to docket file size restrictions or content (*e.g.,* CBI).

Throughout this document, ''we,'' ''us,'' and ''our'' means the EPA.

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I. Background

A. Description of Statutory Background

On October 1, 2015, the EPA promulgated a revision to the 2015 8-hour ozone NAAQS (2015 ozone NAAQS), lowering the level of both the primary and secondary standards to 0.070 parts per million (ppm).[1] Section 110(a)(1) of the CAA requires states to submit, within 3 years after promulgation of a new or revised standard, SIP submissions meeting the applicable requirements of section 110(a)(2).[2] One of these applicable requirements is found in CAA section 110(a)(2)(D)(i)(I), otherwise known as the ''interstate transport'' or ''good neighbor'' provision, which generally requires SIPs to contain adequate provisions to prohibit in-state emissions activities from having certain adverse air quality effects on other states due to interstate transport of pollution. There are two requirements, often referred to as ''prongs'' within CAA section 110(a)(2)(D)(i)(I). A SIP for a new or revised NAAQS must contain adequate provisions prohibiting any source or other type of emissions activity within the state from emitting air pollutants in amounts that will significantly contribute to nonattainment of the NAAQS in another state (prong 1) or interfere with maintenance of the NAAQS in another state (prong 2). The EPA and states must give independent significance to prong 1 and prong 2 when evaluating downwind air quality problems under CAA section 110(a)(2)(D)(i)(I).[3]

B. Description of the EPA's 4-Step Interstate Transport Regulatory Process

The EPA is using the 4-Step interstate transport framework (or 4-Step framework) described in detail below to evaluate states' SIP submittals addressing the interstate transport provision for the 2015 ozone NAAQS. The EPA has addressed the interstate transport requirements of CAA section 110(a)(2)(D)(i)(I) with respect to prior ozone NAAQS in several regional regulatory actions, including the Cross-State Air Pollution Rule (CSAPR), which addressed interstate transport with respect to the 1997 ozone NAAQS as well as the 1997 and 2006 fine particulate matter standards,[4] and the Cross-State Air Pollution Rule Update (CSAPR Update) [5] and the Revised CSAPR Update, both of which addressed the 2008 ozone NAAQS.[6]

Through the development and implementation of the CSAPR rulemakings and prior regional rulemakings pursuant to the interstate transport provision,[7] the EPA, working in partnership with states, developed the following 4-Step framework to evaluate a state's obligations to eliminate interstate transport emissions under the interstate transport provision for the ozone NAAQS: (1) Identify monitoring sites that are projected to have problems attaining and/or maintaining the NAAQS (*i.e.,* nonattainment and/or maintenance receptors); (2) identify states that impact those air quality problems in other (*i.e.,* downwind) states sufficiently such that the states are considered ''linked'' and therefore warrant further review and analysis; (3) identify the emissions reductions necessary (if any), applying a multifactor analysis, to eliminate each linked upwind state's significant contribution to nonattainment or interference with maintenance of the NAAQS at the locations identified in Step 1; and (4) adopt permanent and enforceable measures needed to achieve those emissions reductions.

[1] ''National Ambient Air Quality Standards for Ozone'', Final Rule, 80 FR 65292 (October 26, 2015). Although the level of the standard is specified in the units of ppm, ozone concentrations are also described in parts per billion (ppb). For example, 0.070 ppm is equivalent to 70 ppb.

[2] SIP revisions that are intended to meet the applicable requirements of section 110(a)(1) and (2) of the CAA are often referred to as infrastructure SIPs and the applicable elements under section 110(a)(2) are referred to as infrastructure requirements.

[3] *See North Carolina* v. *EPA,* 531 F.3d 896, 909–11 (D.C. Cir. 2008).

[4] *See* ''Federal Implementation Plans: Interstate Transport of Fine Particulate Matter and Ozone and Correction of SIP Approvals'', 76 FR 48208 (Aug. 8, 2011).

[5] *See* ''Cross-State Air Pollution Rule Update for the 2008 Ozone NAAQS'', 81 FR 74504 (Oct. 26, 2016).

[6] In 2019, the D.C. Circuit Court of Appeals remanded the CSAPR Update to the extent it failed to require upwind states to eliminate their significant contribution by the next applicable attainment date by which downwind states must come into compliance with the NAAQS, as established under CAA section 181(a). *Wisconsin* v. *EPA,* 938 F.3d 303, 313 (D.C. Cir. 2019). The Revised CSAPR Update for the 2008 Ozone NAAQS, 86 FR 23054 (April 30, 2021), responded to the remand of the CSAPR Update in *Wisconsin* and the vacatur of a separate rule, the ''CSAPR Close-Out,'' 83 FR 65878 (December 21, 2018), in *New York* v. *EPA,* 781 F. App'x. 4 (D.C. Cir. 2019).

[7] In addition to the CSAPR rulemakings, other regional rulemakings addressing ozone transport include the ''NO_X SIP Call,'' 63 FR 57356 (October 27, 1998), and the ''Clean Air Interstate Rule'' (CAIR), 70 FR 25162 (May 12, 2005).

C. Background on the EPA's Ozone Transport Modeling Information

In general, the EPA has performed nationwide air quality modeling to project ozone design values (DVs) [8] which are used in combination with measured data to identify nonattainment and maintenance receptors. To quantify the contribution of emissions from specific upwind states on 2023 ozone DVs for the identified downwind nonattainment and maintenance receptors, the EPA performed nationwide, state-level ozone source apportionment modeling for 2023. The source apportionment modeling provided contributions to ozone at receptors from precursor emissions of anthropogenic nitrogen oxides (NO_X) and volatile organic compounds (VOCs) in individual upwind states.

The EPA has released several documents containing projected ozone design values, contributions, and information relevant to evaluating interstate transport with respect to the 2015 ozone NAAQS. First, on January 6, 2017, the EPA published a notice of data availability (NODA) in which we requested comment on preliminary interstate ozone transport data including projected ozone DVs and interstate contributions for 2023 using a 2011 base year platform.[9] In the NODA, the EPA used the year 2023 as the analytic year for this preliminary modeling because that year aligns with the expected attainment year for Moderate ozone nonattainment areas for the 2015 NAAQS.[10] On October 27, 2017, we released a memorandum (October 2017 memorandum) containing updated modeling data for 2023, which incorporated changes made in response to comments on the NODA, and noted that the modeling may be useful for states developing SIPs to address interstate transport obligations for the 2008 ozone NAAQS.[11] On March 27, 2018, we issued a memorandum (March 2018 memorandum) noting that the same 2023 modeling data released in the October 2017 memorandum could also be useful for identifying potential downwind air quality problems with respect to the 2015 ozone NAAQS at Step 1 of the 4-Step framework.[12] The March 2018 memorandum also included the then newly available contribution modeling data to assist states in evaluating their impact on potential downwind air quality problems for the 2015 ozone NAAQS under Step 2 of the 4-Step framework.[13] The EPA subsequently issued two more memoranda in August and October 2018, providing additional information to states developing interstate transport SIP submissions for the 2015 ozone NAAQS concerning, respectively, potential contribution thresholds that may be appropriate to apply in Step 2 of the 4-Step interstate transport framework, and considerations for identifying downwind areas that may have problems maintaining the standard at Step 1 of the 4-Step interstate transport framework.[14]

Since the release of the modeling data shared in the March 2018 memorandum, the EPA performed updated modeling using a 2016-based emissions modeling platform (*i.e.,* 2016v1). This emissions platform was developed under the EPA/Multi-Jurisdictional Organization (MJO)/state collaborative project.[15] This collaborative project was a multi-year joint effort by the EPA, MJOs, and states to develop a new, more recent emissions platform for use by the EPA and states in regulatory modeling as an improvement over the dated 2011-based platform that the EPA had used to project ozone DVs and contribution data provided in the 2017 and 2018 memoranda. The EPA used the 2016v1 emissions to project ozone DVs and contributions for 2023. On October 30, 2020, in the Notice of Proposed Rulemaking for the Revised CSAPR Update, the EPA released and accepted public comment on 2023 modeling that used the 2016v1 emissions platform.[16] *See* 85 FR 68964, 68981. Although the Revised CSAPR Update addressed transport for the 2008 ozone NAAQS, the projected DVs and contributions from the 2016v1 platform are also useful for identifying downwind ozone problems and linkages with respect to the 2015 ozone NAAQS.[17]

Following the Revised CSAPR Update final rule, the EPA made further updates to the 2016 emissions platform to include mobile emissions from the EPA's Motor Vehicle Emission Simulator MOVES3 model [18] and updated emissions projections for electric generating units (EGUs) that reflect the emissions reductions from the Revised CSAPR Update, recent information on plant closures, and other sector trends. The construct of the updated emissions platform, 2016v2, is described in the Technical Support Document (TSD) Preparation of Emissions Inventories for the 2016v2 North American Emissions Modeling Platform, which is included in Docket ID No. EPA–HQ–OAR–2021–0663. The EPA performed air quality modeling of the 2016v2 emissions using the most recent publicly released version of the Comprehensive Air-quality Model with extensions (CAMx) photochemical modeling, version 7.10.[19] The EPA now proposes to rely on the air quality modeling performed using CAMx, version 7.10, and the newly available 2016v2 emissions platform in evaluating states' submissions with respect to Steps

[8] A design value is a statistic that describes the air quality status of a given location relative to the level of the NAAQS. Design values are typically used to designate and classify nonattainment areas, as well as to assess progress towards meeting the NAAQS. *See https://www.epa.gov/air-trends/air-quality-design-values#report.*

[9] *See* ''Notice of Availability of the Environmental Protection Agency's Preliminary Interstate Ozone Transport Modeling Data for the 2015 8-hour Ozone National Ambient Air Quality Standard (NAAQS)'', 82 FR 1733 (January 6, 2017).

[10] 82 FR at 1735.

[11] *See* EPA memorandum, ''Information on the Interstate Transport State Implementation Plan Submissions for the 2008 Ozone National Ambient Air Quality Standards under Clean Air Act section 110(a)(2)(D)(i)(I)'', October 27, 2017, (''October 2017 memorandum'') available in Docket ID No. EPA–HQ–OAR–2021–0663 or at *https://www.epa.gov/interstate-air-pollution-transport/interstate-air-pollution-transport-memos-and-notices.*

[12] *See* EPA memorandum, ''Information on the Interstate Transport State Implementation Plan Submissions for the 2015 Ozone National Ambient Air Quality Standards under Clean Air Act section 110(a)(2)(D)(i)(I)'', March 27, 2018, (''March 2018 memorandum'') available in Docket ID No. EPA–HQ–OAR–2021–0663 or at *https://www.epa.gov/interstate-air-pollution-transport/interstate-air-pollution-transport-memos-and-notices.*

[13] The March 2018 memorandum, however, provided, ''While the information in this memorandum and the associated air quality analysis data could be used to inform the development of these SIPs, the information is not a final determination regarding states' obligations under the interstate transport provision. Any such determination would be made through notice-and-comment rulemaking.''

[14] *See* EPA memorandums, ''Analysis of Contribution Thresholds for Use in Clean Air Act section 110(a)(2)(D)(i)(I) Interstate Transport State Implementation Plan Submissions for the 2015 Ozone National Ambient Air Quality Standards'', August 31, 2018 (''August 2018 memorandum''), and ''Considerations for Identifying Maintenance Receptors for Use in Clean Air Act section 110(a)(2)(D)(i)(I) Interstate Transport State Implementation Plan Submissions for the 2015 Ozone National Ambient Air Quality Standards'', October 19, 2018 (''October 2018 memorandum''), available in Docket ID No. EPA–HQ–OAR–2021–0663 or at *https://www.epa.gov/airmarkets/memo-and-supplemental-information-regarding-interstate-transport-sips-2015-ozone-naaqs.*

[15] The results of this modeling, as well as the underlying modeling files, are included in Docket ID No. EPA–HQ–OAR–2021–0663.

[16] *See* 85 FR 68964, 68981 (Oct. 30, 2020).

[17] *See* the Air Quality Modeling Technical Support Document for the Final Revised Cross-State Air Pollution Rule Update, available in Docket ID No. EPA–HQ–OAR–2021–0063 for this action.

[18] Additional details and documentation related to the MOVES3 model can be found at *https://www.epa.gov/moves/latest-version-motor-vehicle-emission-simulator-moves.*

[19] Ramboll Environment and Health, January 2021, *www.camx.com.*

1 and 2 of the 4-Step framework and generally referenced within this action as 2016v2 modeling for 2023. By using the updated modeling results, the EPA is using the most current and technically appropriate information for this proposed rulemaking. Sections II–V of this action and the Air Quality Modeling TSD for 2015 ozone NAAQS Transport SIP Proposed Actions, included in Docket ID No. EPA–HQ–OAR–2021–0663 for this proposal, contain additional detail on the EPA's 2016v2 modeling. In this action, the EPA is inviting public comment on this updated 2023 modeling, which uses a 2016v2 emissions platform. Per the instructions in the Supplementary Information section above, all public comments, including comments on the EPA's air quality modeling should be submitted in the Regional docket for this action, Docket ID No. EPA–R06–OAR–2021–0801. Comments are not being accepted in Docket No. EPA–HQ–OAR–2021–0663.

States may have chosen to rely on the results of EPA modeling and/or alternative modeling performed by states or Multi-Jurisdictional Organizations (MJOs) to evaluate downwind air quality problems and contributions as part of their submissions. In Sections II–V of this action, we evaluate how the states used air quality modeling information in their submissions.

D. The EPA's Approach to Evaluating Interstate Transport SIPs for the 2015 Ozone NAAQS

The EPA proposes to apply a consistent set of policy judgments across all states for purposes of evaluating interstate transport obligations and the approvability of interstate transport SIP submittals for the 2015 ozone NAAQS. These policy judgments reflect consistency with relevant case law and past agency practice as reflected in the CSAPR and related rulemakings. Nationwide consistency in approach is particularly important in the context of interstate ozone transport, which is a regional-scale pollution problem involving many smaller contributors. Effective policy solutions to the problem of interstate ozone transport going back to the 1998 NO_X SIP Call [20] have necessitated the application of a uniform framework of policy judgments in order to ensure an ''efficient and equitable'' approach. *See EME Homer City Generation, LP* v. *EPA,* 572 U.S. 489, 519 (2014).

In the March, August, and October 2018 memoranda, the EPA recognized that states may be able to establish alternative approaches to addressing their interstate transport obligations for the 2015 ozone NAAQS that vary from a nationally uniform framework. The EPA emphasized in these memoranda, however, that such alternative approaches must be technically justified and appropriate in light of the facts and circumstances of each particular state's submittal. In general, the EPA continues to believe that deviation from a nationally consistent approach to ozone transport must be substantially justified and have a well-documented technical basis that is consistent with relevant case law. Where states submitted SIPs that rely on any such potential ''flexibilities'' as may have been identified or suggested in the past, the EPA will evaluate whether the state adequately justified the technical and legal basis for doing so.

The EPA notes that certain concepts included in an attachment to the March 2018 memorandum require unique consideration, and these ideas do not constitute agency guidance with respect to transport obligations for the 2015 ozone NAAQS. Attachment A to the March 2018 memorandum identified a ''Preliminary List of Potential Flexibilities'' that could potentially inform SIP development.[21] However, the EPA made clear in Attachment A that the list of ideas were not suggestions endorsed by the Agency but rather ''comments provided in various forums'' on which the EPA sought ''feedback from interested stakeholders.'' [22] Further, Attachment A stated, ''EPA is not at this time making any determination that the ideas discussed below are consistent with the requirements of the CAA, nor are we specifically recommending that states use these approaches.'' [23] Attachment A to the March 2018 memorandum, therefore, does not constitute agency guidance, but was intended to generate further discussion around potential approaches to addressing ozone transport among interested stakeholders. To the extent states sought to develop or rely on these ideas in support of their SIP submittals, the EPA will review the technical and legal justifications for doing so.

The remainder of this section describes the EPA's proposed framework with respect to analytic year, definition of nonattainment and maintenance receptors, selection of contribution threshold, and multifactor control strategy analysis.

1. Selection of Analytic Year

In general, the states and the EPA must implement the interstate transport provision in a manner ''consistent with the provisions of [title I of the CAA.]'' CAA section 110(a)(2)(D)(i). This requires, among other things, that these obligations are addressed consistently with the timeframes for downwind areas to meet their CAA obligations. With respect to ozone NAAQS, under CAA section 181(a), this means obligations must be addressed ''as expeditiously as practicable'' and no later than the schedule of attainment dates provided in CAA section 181(a)(1).[24] Several D.C. Circuit court decisions address the issue of the relevant analytic year for the purposes of evaluating ozone transport air quality problems. On September 13, 2019, the D.C. Circuit issued a decision in *Wisconsin* v. *EPA,* remanding the CSAPR Update to the extent that it failed to require upwind states to eliminate their significant contribution by the next applicable attainment date by which downwind states must come into compliance with the NAAQS, as established under CAA section 181(a). 938 F.3d at 313.

On May 19, 2020, the D.C. Circuit issued a decision in *Maryland* v. *EPA* that cited the *Wisconsin* decision in holding that the EPA must assess the impact of interstate transport on air quality at the next downwind attainment date, including Marginal area attainment dates, in evaluating the basis for the EPA's denial of a petition under CAA section 126(b). *Maryland* v. *EPA,* 958 F.3d 1185, 1203–04 (D.C. Cir. 2020). The court noted that ''section 126(b) incorporates the Good Neighbor Provision,'' and, therefore, ''EPA must find a violation [of section 126] if an upwind source will significantly contribute to downwind nonattainment at the *next downwind attainment deadline.* Therefore, the agency must evaluate downwind air quality at that deadline, not at some later date.'' *Id.* at 1204 (emphasis added). The EPA interprets the court's holding in *Maryland* as requiring the states and the Agency, under the interstate transport provision, to assess downwind air quality as expeditiously as practicable and no later than the next applicable

[20] *See* 63 FR 57356. The NO_X SIP Call required 22 eastern states and the District of Columbia to submit state implementation plans (SIPs) that set statewide ozone season NOx budgets which would reduce emissions of NO_X.

[21] March 2018 memorandum, Attachment A.

[22] *Id.* at A–1.

[23] *Id.*

[24] For attainment dates for the 2015 8-hour ozone NAAQS, refer to CAA section 181(a), 40 CFR 51.1303, and ''Additional Air Quality Designations for the 2015 Ozone National Ambient Air Quality Standards'', 83 FR 25776 (June 4, 2018, effective Aug. 3, 2018).

attainment date,[25] which is now the Moderate area attainment date under CAA section 181 for ozone nonattainment. The Moderate area attainment date for the 2015 ozone NAAQS is August 3, 2024.[26] The EPA believes that 2023 is now the appropriate year for analysis of interstate transport obligations for the 2015 ozone NAAQS, because the 2023 ozone season is the last relevant ozone season during which achieved emissions reductions in linked upwind states could assist downwind states with meeting the August 3, 2024, Moderate area attainment date for the 2015 ozone NAAQS.

The EPA recognizes that the attainment date for nonattainment areas classified as Marginal for the 2015 ozone NAAQS was August 3, 2021. Under the *Maryland* holding, any necessary emissions reductions to satisfy interstate transport obligations should have been implemented by no later than this date. At the time of the statutory deadline to submit interstate transport SIPs (October 1, 2018), many states relied upon the EPA modeling of the year 2023, and no state provided an alternative analysis using a 2021 analytic year (or the prior 2020 ozone season). However, the EPA must act on SIP submittals using the information available at the time it takes such action. In this circumstance, the EPA does not believe it would be appropriate to evaluate states' obligations under CAA section 110(a)(2)(D)(i)(I) as of an attainment date that is wholly in the past, because the Agency interprets the interstate transport provision as forward looking. *See* 86 FR at 23074; *see also Wisconsin,* 938 F.3d at 322. Consequently, in this proposal the EPA proposes to use the analytical year of 2023 to evaluate each state's CAA section 110(a)(2)(D)(i)(I) SIP submission with respect to the 2015 ozone NAAQS.

2. Step 1 of the 4-Step Interstate Transport Framework

In Step 1, the EPA identifies monitoring sites that are projected to have problems attaining and/or maintaining the NAAQS in the 2023 analytic year. Where the EPA's analysis shows that a site does not fall under the definition of a nonattainment or maintenance receptor, that site is excluded from further analysis under the EPA's 4-Step framework. For sites that are identified as a nonattainment or maintenance receptor in 2023, we proceed to the next step of our 4-Step framework by identifying the upwind state's contribution to those receptors.

The EPA's approach to identifying ozone nonattainment and maintenance receptors in this action is consistent with the approach used in previous transport rulemakings. The EPA's approach gives independent consideration to both the ''contribute significantly to nonattainment'' and the ''interfere with maintenance'' prongs of CAA section 110(a)(2)(D)(i)(I), consistent with the D.C. Circuit's direction in *North Carolina* v. *EPA.*[27]

For the purpose of this proposal, the EPA identifies ''nonattainment'' receptors as those monitoring sites that are projected to have average DVs in 2023 that exceed the NAAQS and that are also measuring nonattainment based on the most recent monitored DVs. This approach is consistent with prior transport rulemakings, such as the CSAPR Update, where the EPA defined nonattainment receptors as those areas that both currently measure nonattainment and that the EPA projects will be in nonattainment in the future analytic year (*i.e.,* 2023).[28]

In addition, in this proposal, the EPA identifies a receptor to be a ''maintenance'' receptor for purposes of defining interference with maintenance, consistent with the method used in the CSAPR and upheld by the D.C. Circuit in *EME Homer City Generation, L.P.* v. *EPA,* 795 F.3d 118, 136 (D.C. Cir. 2015).[29] Specifically, the EPA identified maintenance receptors as those receptors that would have difficulty maintaining the relevant NAAQS in a scenario that takes into account historical variability in air quality at that receptor. The variability in air quality was determined by evaluating the ''maximum'' future DV at each receptor based on a projection of the maximum measured DV over the relevant period. The EPA interprets the projected maximum future DV to be a potential future air quality outcome consistent with the meteorology that yielded maximum measured concentrations in the ambient data set analyzed for that receptor (*i.e.,* ozone conducive meteorology). The EPA also recognizes that previously experienced meteorological conditions (*e.g.,* dominant wind direction, temperatures, air mass patterns) promoting ozone formation that led to maximum concentrations in the measured data may reoccur in the future. The maximum DV gives a reasonable projection of future air quality at the receptor under a scenario in which such conditions do, in fact, reoccur. The projected maximum DV is used to identify upwind emissions that, under those circumstances, could interfere with the downwind area's ability to maintain the NAAQS.

Recognizing that nonattainment receptors are also, by definition, maintenance receptors, the EPA often uses the term ''maintenance-only'' to refer to those receptors that are not nonattainment receptors. Consistent with the concepts for maintenance receptors, as described above, the EPA identifies ''maintenance-only'' receptors as those monitoring sites that have projected average DVs above the level of the applicable NAAQS, but that are not currently measuring nonattainment based on the most recent official DVs. In addition, those monitoring sites with projected average DVs below the NAAQS, but with projected maximum DVs above the NAAQS are also identified as ''maintenance only'' receptors, even if they are currently measuring nonattainment based on the most recent official DVs.

3. Step 2 of the 4-Step Interstate Transport Framework

In Step 2, the EPA quantifies the contribution of each upwind state to each receptor in the 2023 analytic year. The contribution metric used in Step 2 is defined as the average impact from each state to each receptor on the days with the highest ozone concentrations at the receptor based on the 2023 modeling. If a state's contribution value does not equal or exceed the threshold of 1 percent of the NAAQS (*i.e.,* 0.70 ppb for the 2015 ozone NAAQS), the upwind state is not ''linked'' to a downwind air quality problem, and the EPA, therefore, concludes that the state does not significantly contribute to

[25] We note that the court in *Maryland* did not have occasion to evaluate circumstances in which the EPA may determine that an upwind linkage to a downwind air quality problem exists at Steps 1 and 2 of the 4-Step interstate transport framework by a particular attainment date, but for reasons of impossibility or profound uncertainty the Agency is unable to mandate upwind pollution controls by that date. *See Wisconsin,* 938 F.3d at 320. The D.C. Circuit noted in *Wisconsin* that upon a sufficient showing, these circumstances may warrant flexibility in effectuating the purpose of the interstate transport provision.

[26] *See* CAA section 181(a); 40 CFR 51.1303; ''Additional Air Quality Designations for the 2015 Ozone National Ambient Air Quality Standards'', 83 FR 25776 (June 4, 2018, effective Aug. 3, 2018).

[27] *See North Carolina* v. *EPA,* 531 F.3d 896, 910–11 (D.C. Cir. 2008) (holding that the EPA must give ''independent significance'' to each prong of CAA section 110(a)(2)(D)(i)(I)).

[28] *See* 81 FR 74504 (October 26, 2016). This same concept, relying on both current monitoring data and modeling to define nonattainment receptor, was also applied in CAIR. *See* 70 FR at 25241, 25249 (January 14, 2005); *see also North Carolina,* 531 F.3d at 913–14 (affirming as reasonable EPA's approach to defining nonattainment in CAIR).

[29] *See* 76 FR 48208 (August 8, 2011). CSAPR Update and Revised CSAPR Update also used this approach. See 81 FR 74504 (October 26, 2016) and 86 FR 23054 (April 30, 2021).

nonattainment or interfere with maintenance of the NAAQS in the downwind states. However, if a state's contribution equals or exceeds the 1 percent threshold, the state's emissions are further evaluated in Step 3, considering both air quality and cost of controls as part of a multifactor analysis, to determine what, if any, emissions might be deemed ''significant'' and, thus, must be eliminated under CAA section 110(a)(2)(D)(i)(I). The EPA is proposing to continue to rely in the first instance on the 1 percent threshold for the purpose of evaluating a state's contribution to nonattainment or maintenance of the 2015 ozone NAAQS (*i.e.,* 0.70 ppb) at downwind receptors. This is consistent with the Step 2 approach that the EPA applied in CSAPR for the 1997 ozone NAAQS, which has subsequently been applied in the CSAPR Update when evaluating interstate transport obligations for the 2008 ozone NAAQS. For ozone, as the EPA found in the Clean Air Interstate Rule (CAIR), CSAPR, and CSAPR Update, a portion of the nonattainment problem from anthropogenic sources in the U.S. results from the combined impact of relatively small contributions from many upwind states, along with contributions from in-state sources and, in some cases, substantially larger contributions from a subset of upwind states. The EPA's analysis shows that much of the ozone transport problem being analyzed in this proposed rule is still the result of the collective impacts of contributions from many upwind states. Therefore, application of a consistent contribution threshold is necessary to identify those upwind states that should have responsibility for addressing their contribution to the downwind nonattainment and maintenance problems to which they collectively contribute. Continuing to use 1 percent of the NAAQS as the screening metric to evaluate collective contribution from many upwind states also allows the EPA (and states) to apply a consistent framework to evaluate interstate emissions transport under the interstate transport provision from one NAAQS to the next. *See* 81 FR at 74518. *See also* 86 FR at 23085 (reviewing and explaining rationale from CSAPR); 76 FR at 48237–38 (for selection of 1 percent threshold).

The EPA's August 2018 memorandum recognized that in certain circumstances, a state may be able to establish that an alternative contribution threshold of 1 ppb is justifiable. Where a state relies on this alternative threshold, and where that state determined that it was not linked at Step 2 using the alternative threshold, the EPA will evaluate whether the state provided a technically sound assessment of the appropriateness of using this alternative threshold based on the facts and circumstances underlying its application in the particular SIP submission.

4. Step 3 of the 4-Step Interstate Transport Framework

Consistent with the EPA's longstanding approach to eliminating significant contribution or interference with maintenance, at Step 3, states linked at Steps 1 and 2 are generally expected to prepare a multifactor analysis of potential emissions controls. The EPA's analysis at Step 3 in prior Federal actions addressing interstate transport requirements has primarily focused on an evaluation of cost-effectiveness of potential emissions controls (on a marginal cost-per-ton basis), the total emissions reductions that may be achieved by requiring such controls (if applied across all linked upwind states), and an evaluation of the air quality impacts such emissions reductions would have on the downwind receptors to which a state is linked; other factors may potentially be relevant if adequately supported. In general, where the EPA's or alternative air quality and contribution modeling establishes that a state is linked at Steps 1 and 2, it will be insufficient at Step 3 for a state merely to point to its existing rules requiring control measures as a basis for approval. In general, the emissions-reducing effects of all existing emissions control requirements are already reflected in the air quality results of the modeling for Steps 1 and 2. If the state is shown to still be linked to one or more downwind receptor(s), states must provide a well-documented evaluation determining whether their emissions constitute significant contribution or interference with maintenance by preparing a multifactor assessment that evaluates additional available control opportunities. While the EPA has not prescribed a particular method for this assessment, the EPA expects states at a minimum to present a sufficient technical evaluation. This would typically include information on emissions sources, applicable control technologies, emissions reductions, costs, cost effectiveness, and downwind air quality impacts of the estimated reductions, before concluding that no additional emissions controls should be required.[30]

[30] As examples of general approaches for how such an analysis could be conducted for their sources, states could look to the CSAPR Update, 81 FR 74504, 74539–51; CSAPR, 76 FR 48208, 48246–63; CAIR, 70 FR 25162, 25195–229; or the NO_X SIP Call, 63 FR 57356, 57399–405. *See also* Revised CSAPR Update, 86 FR 23054, 23086–23116. Consistently across these rulemakings, the EPA has developed emissions inventories, analyzed different levels of control stringency at different cost thresholds, and assessed resulting downwind air quality improvements.

5. Step 4 of the 4-Step Interstate Transport Framework

In Step 4, states (or the EPA) develop permanent and federally enforceable control strategies to achieve the emissions reductions determined to be necessary in Step 3 to eliminate significant contribution to nonattainment or interference with maintenance of the NAAQS. For a state linked in Steps 1 and 2 to rely on an emissions control measure in Step 3 to address its interstate transport obligations, that measure must be included in the state's SIP so that it is permanent and federally enforceable. *See* CAA section 110(a)(2)(D) (''Each such [SIP] shall . . . contain adequate provisions. . . .''). *See also* CAA section 110(a)(2)(A); *Committee for a Better Arvin* v. *U.S. E.P.A.,* 786 F.3d 1169, 1175–76 (9th Cir. 2015) (holding that measures relied on by state to meet CAA requirements must be included in the SIP).

II. Arkansas SIP Submission Addressing Interstate Transport of Air Pollution for the 2015 Ozone NAAQS and the EPA Evaluation of the SIP Submission

A. Summary of ADEQ SIP Submission Addressing Interstate Transport of Air Pollution for the 2015 Ozone NAAQS

On October 10, 2019, the Arkansas Division of Environmental Quality (ADEQ) of the Arkansas Department of Energy and Environment made a SIP submission addressing interstate transport of air pollution for the 2015 ozone NAAQS. The ADEQ SIP submission provided an analysis of Arkansas's air emissions impact to downwind states using the EPA's 4-Step framework and an analytic year of 2023 and concluded that the State's air emissions will not contribute significantly to nonattainment or interfere with maintenance of the 2015 ozone NAAQS in other states.

To identify downwind monitors projected to be in nonattainment and/or have maintenance issues in 2023 (Step 1), ADEQ relied on the EPA's interstate transport modeling results that are included as an attachment to the March 2018 memorandum. The EPA modeling results included with the March 2018 memorandum provide: (1) Projected

average DV and maximum DV for the future year 2023 (fy 2023) for ozone monitors projected to be potential nonattainment or maintenance receptors in the 48 contiguous States and (2) the expected contribution of State emissions to the projected ozone concentrations at each ozone monitor.

At Step 2, ADEQ identified those states to which Arkansas contributes emissions and then applied a 1 ppb contribution threshold to determine projected nonattainment and/or maintenance receptors in other states that might be significantly impacted by emissions from Arkansas. ADEQ provided three rationales as a basis to support their decision to rely on a 1 ppb contribution threshold. First, ADEQ cited to the August 2018 memorandum [31] that compares the collective contribution captured by three different contribution thresholds: 1 Percent of the NAAQS, 1 ppb, and 2 ppb. ADEQ summarized the August 2018 memorandum and concluded that the 1 percent and 1 ppb contribution thresholds are generally comparable. Second, ADEQ referenced an April 2018 memorandum [32] in which the EPA examined the use of a significant impact level (SIL) value of 1 ppb for determining whether a proposed prevention of significant deterioration (PSD) source causes or contributes to a violation of the corresponding 2015 ozone NAAQS. Despite recognizing that a contribution threshold is not the same as a significance level, ADEQ claimed that a contribution threshold and significance level are sufficiently analogous to support the use of a 1 ppb contribution threshold. The final rationale ADEQ provided was based on the consistency with the reported precision of Federal reference monitors for ozone and the rounding requirements found in 40 CFR part 50, Appendix U, Interpretation of the Primary and Secondary National Ambient Air Quality Standards for Ozone. ADEQ noted that the 1 percent contribution threshold of 0.7 ppb is lower than the manufacturer's reported precision of Federal reference monitors for ozone and that the requirements found in Appendix U truncates monitor values of 0.7 ppb to 0 ppb.

As stated previously, ADEQ identified all potential nonattainment and maintenance receptors for fy 2023 showing a contribution of emissions from Arkansas.[33] These receptors are included in Table AR–1.

TABLE AR–1—PROJECTED NONATTAINMENT AND MAINTENANCE RECEPTORS IDENTIFIED BY ARKANSAS BASED ON THE EPA'S MARCH 2018 MEMORANDUM

Receptor (site ID, county, state)	2023 average DV (ppb)	2023 maximum DV (ppb)	Arkansas contribution (ppb)
260050003, Allegan, MI	69	71.7	1.64
482011039, Harris, TX	71.8	73.5	0.99
480391004, Brazoria, TX	74	74.9	0.90
484392003, Tarrant, TX	72.5	74.8	0.78
481210034, Denton, TX	69.7	72	0.58
482011034, Harris, TX	70.8	71.6	0.54
551170006, Sheboygan, WI	72.8	75.1	0.51
550790085, Milwaukee, WI	71.2	73	0.40
482010024, Harris, TX	70.4	72.8	0.29
261630019, Wayne, MI	69	71	0.27
240251001, Harford, MD	70.9	73.3	0.17
90019003, Fairfield, CT	73	75.9	0.13
90013007, Fairfield, CT	71	75	0.13
361030002, Suffolk, NY	74	75.5	0.12
360810124, Queens, NY	70.2	72	0.09
90099002, New Haven, CT	69.9	72.6	0.08
90010017, Fairfield, CT	68.9	71.2	0.07
80590006, Jefferson, CO	71.3	73.7	0.03
80590011, Jefferson, CO	70.9	73.9	0.02
81230009, Weld, CO	70.2	71.4	0.02
80350004, Douglas, CO	71.1	73.2	0.01

Based on a 1 ppb contribution threshold, ADEQ identified only one fy 2023 projected maintenance receptor, Allegan County, MI, and no fy 2023 projected nonattainment receptors linked to Arkansas. ADEQ also cited other modeling performed by TCEQ and Midwest Ozone Group, which showed that when different modeling protocols were employed, future year DV projections and contributions could differ considerably. ADEQ therefore elected to consider other evidence regarding its linkage to air quality in Allegan County, MI. Specifically, ADEQ analyzed back trajectory information to infer that there is no consistent or persistent relationship between elevated ozone days in Allegan County, MI and air traveling through Arkansas. ADEQ assessed wind patterns on elevated ozone days—days with a maximum daily average 8-hour ozone (MDA8) greater than 70.9 ppb in Allegan County,

[31] ''Analysis of Contribution Thresholds for Use in Clean Air Act section 110(a)(2)(D)(i)(I) Interstate Transport State Implementation Plan Submissions for the 2015 Ozone National Ambient Air Quality Standards'', August 31, 2018, available in Docket ID No. EPA–HQ–OAR–2021–0663 or at *https://www.epa.gov/airmarkets/memo-and-supplemental-information-regarding-interstate-transport-sips-2015-ozone-naaqs.*

[32] *See* EPA memorandum from Peter Tsirigotis, Director of the Office of Air Quality planning and Standards, April 17, 2018, ''Guidance on Significant Impact Levels for Ozone and Fine Particles in the Prevention of Significant Deterioration Permitting Program'' (''SILs Guidance'' or ''April 2018 memorandum''), available at: *https://www.epa.gov/sites/default/files/2018-04/documents/sils_policy_guidance_document_final_signed_4-17-18.pdf.*

[33] Table AR–1 lists all sites that the EPA projected to have a fy 2023 average DV or fy 2023 maximum DV greater than 70.9 ppb in our March 2018 memorandum. As Arkansas stated in the SIP submission, the EPA considers sites matching these criteria to be projected nonattainment areas and projected maintenance areas, respectively. ADEQ ranked these sites by Arkansas's potential contribution, which the EPA determined based on the daily eight-hour average contributions on the top ten concentration days in 2023.

MI. ADEQ used the National Oceanic and Atmospheric Administration (NOAA) HYbrid Single Particle Lagrangian Integrated Trajectory (HYSPLIT) [34] model to evaluate wind back trajectories from over a 10-year period (2008–2017).[35] Over the course of the 10-year period, ADEQ identified 95 elevated ozone days (MDA8 > 70.9 ppb) for the Allegan County, MI monitor.[36] Next, ADEQ identified the maximum ozone value within these elevated ozone days.[37] Using HYSPLIT, ADEQ ran 72-hour back trajectories using the hour of the maximum ozone value for each elevated day as the back trajectory start time. To consider the effects of vertical variations in wind flows on transport patterns, ADEQ used the following starting heights above ground level: 100m, 500m, 1000m, and 1500m. ADEQ obtained 40 km grid meteorological data for the back trajectory analysis using Eta Data Assimilation System (EDAS) data.[38] In total, ADEQ ran 152 back trajectories for each mixing height.[39] ADEQ filtered the back trajectories to determine whether further analysis is warranted using two criteria. First, ADEQ filtered out back trajectories that had a starting hour mixing height below the back trajectory start height because ADEQ asserted these air parcels would not have reached ambient air [40] at the Allegan County, MI monitor site. Second, ADEQ filtered out any back trajectory that did not have a path through any portion of Arkansas. After ADEQ applied their filter criteria, 41 out of 608 back trajectories (6.74%) remained from 22 out of the 95 elevated ozone days (23%) examined. Of the 10 years examined, ADEQ also found that air passing through Arkansas only reached Allegan County, MI on four or more days in one year: 2012.[41] For 2012, HYSPLIT analyses indicated 14 Arkansas-Allegan County, MI linked back trajectories for 7 days in total in 2012, whereas for 2011, 2013, 2014, and 2016 the HYSPLIT analyses indicated three, two, zero and one days with Arkansas-Allegan County, MI linked back trajectories, respectively. For the 10 years ADEQ's performed HYSPLITs, ADEQ's HYSPLIT analysis indicated on average 2.2 days per year had trajectories with Arkansas-Allegan County, MI linked back trajectories. ADEQ also noted that these trajectories passed through other states and through Metropolitan Statistical Areas (MSAs) [42] both before and after traversing through Arkansas. Specifically, ADEQ stated that 37 trajectories passed through the Chicago-Naperville-Elgin, IL–IN–WI MSA prior to reaching Allegan County, MI. Based on these results, ADEQ concluded that other states and MSAs were more likely to have influenced ozone concentrations at the Allegan County, MI monitor on the days with back trajectories linked to Arkansas.

In Step 3, ADEQ also considered air quality trends in Allegan County, MI, emission trends in other upwind states, relative contribution from other upwind states, and cost factors. ADEQ presented that ozone DVs in Allegan County, MI fluctuated over the 2008–2017 period with higher concentration occurring from 2012 through 2014 but declining since 2014. ADEQ also mentioned that despite the most recent 2017 DV for the Allegan County monitor continuing to show an exceedance of the 2015 ozone NAAQS, the EPA-projected 2023 ozone average DV at the Allegan County, MI monitor, based on data provided in the March 2018 memorandum, is 69.0 ppb, which would be in attainment of the 2015 ozone NAAQS in 2023.

Next, ADEQ included an evaluation of the relative contribution and the emission trends from the eight states [43] with contributions greater than 1 ppb to the Allegan County, MI receptor. The emission trends evaluation examined ozone precursors, nitrogen oxides (NO_X) and volatile organic compounds (VOC), from 2011 to 2017 and the model projected fy 2023 emissions level. ADEQ noted that the two states with the highest contributions to Allegan County, MI—Illinois and Indiana—have both experienced year-over-year decreases in NO_X emissions in excess of 20,000 tons of NO_X reduced per year. Arkansas had also experienced decreases in NO_X emissions each evaluated year and emitted less NO_X than any other of the potentially linked states. In addition, ADEQ referenced the EPA projections showing that most potentially linked states will continue to realize reductions in NO_X, as well as VOCs, through 2023. ADEQ confirmed that based on this analysis, the overall general trends of NO_X and VOC emissions are declining from Arkansas and the other linked states. The continuation of trends in the emissions reductions observed, particularly from Illinois and Indiana, are anticipated by ADEQ to result in air quality improvements in Allegan County, MI.

In terms of cost analysis, ADEQ focused only on the cost of NO_X controls at electric generating units (EGUs) in the State because EGUs are the largest source of NO_X emissions that ADEQ regulates. In its analysis, ADEQ found that the costs to install additional NO_X controls (selective catalytic reduction, SCR and selective noncatalytic reduction, SNCR) at EGUs exceed the EPA's cost thresholds used for the CSAPR and CSAPR Update rules.[44] Based on ADEQ's evaluation of the evidence, ADEQ concluded that no additional controls beyond pre-existing

[34] HYbrid Single-Particle Lagrangian Integrated Trajectory (HYSPLIT) model is a complete system for computing both simple air parcel trajectories and complex dispersion and deposition simulations. The model is designed to support a wide range of simulations related to the atmospheric transport and dispersion of pollutants and hazardous materials to the Earth's surface.

[35] ADEQ analyzed ten years of HYSPLIT back trajectories to examine potential relationships between elevated ozone days at the Allegan County, MI monitor and emissions from Arkansas. In the SIP submission ADEQ stated their rationale for looking at an extended period of time is to gain a more complete picture of how Arkansas's emissions might contribute to elevated ozone in Allegan County, MI, rather than relying entirely on the EPA's modeling simulation, which is based on a single base year.

[36] *See* the AirNow-Tech website at *https://www.airnowtech.org/*. AirNow-Tech is a website for air quality data management analysis, and decision support used by the Federal, State, Tribal, and local air quality organizations.

[37] If the same maximum eight-hour value occurred multiple times a day, ADEQ evaluated all incidences of the value for that day.

[38] EDAS is an intermittent data assimilation system that uses successive three-hour model forecasts to generate gridded meteorological fields that reflect observations covering the continental United States. EDAS is accessible at *https://ready.arl.noaa.gov/edas40.php*.

[39] Mixing heights (m), defined as the height above ground level of the layer adjacent to the ground over which an emitted or entrained inert non-buoyant tracer will be mixed by turbulence.

[40] Ambient air is the ''portion of the atmosphere, external to buildings, to which the general public has access.'' 40 CFR 50.1(e).

[41] The number of days in a given year and the number of consecutive years is of particular relevance for the ozone NAAQS, which is calculated based the annual fourth-highest daily maximum eight-hour concentration averaged over three consecutive years.

[42] MSA is defined as a geographic region with a high population density at its core and close economic ties throughout the area.

[43] The eight linked states include Illinois, 42%; Indiana, 15%; Michigan, 7%; Missouri, 6%; Texas, 5%; Wisconsin, 4%; Oklahoma, 3% and Arkansas, 4%. The remaining contribution is labeled at ''Other''. The linkages are based on the EPA's modeling results that are attached to the March 2018 memorandum.

[44] The EPA's Revised CSAPR Update, 86 FR 23054 (April 20, 2021), states ''. . . EPA adjusted its representative cost for optimizing existing SNCR control to $1,800 per ton in response to comments received on the proposed rule . . . EPA views $1,600 per ton for optimization of existing SCR control and installation of state-of-the are NO_X combustion controls and $1,800 per ton for optimization of existing SNCRs as comparable for policy purposes.'' ADEQ's screening analysis using the EPA tools (referencing the EPA's Air Pollution Control Cost Estimation Spreadsheet for SCR) shows that cost-effectiveness values for ozone-season operation of SCR and SNCR are: $12,605–$31,580/ton for SCR and $4,221–$45,581 for SNCR. ADEQ notes that any costs imposed to install controls at the examined EGUs would be passed on to Arkansas ratepayers.

state and Federal regulations were warranted for Arkansas sources to satisfy interstate transport obligations for the 2015 ozone NAAQS.

Based on the determinations made by ADEQ at Steps 1 through 3, ADEQ did not include any new control measures in the SIP submission to reduce ozone precursor emissions as part of a Step 4 analysis.

B. EPA Evaluation of the ADEQ SIP Submission

The EPA is proposing to find that ADEQ's October 10, 2019, SIP submission does not meet the State's obligations with respect to prohibiting emissions that contribute significantly to nonattainment or interfere with maintenance of the 2015 ozone NAAQS in any other state based on the EPA's evaluation of the SIP submission using the 4-Step interstate transport framework, and the EPA is therefore proposing to disapprove ADEQ's SIP submission.

1. Evaluation of Information Provided by ADEQ Regarding Step 1

At Step 1 of the 4-Step framework, ADEQ relied on the EPA modeling released in the March 2018 memorandum to identify nonattainment and maintenance receptors in 2023. As described in Section I of this action, the EPA has recently performed updated modeling using the 2016v2 platform to evaluate interstate transport of ozone for a fy 2023.[45] The EPA proposes to primarily rely on the EPA's modeling using the 2016v2 platform (EPA 2016v2 modeling), to identify projected nonattainment and maintenance receptors in fy 2023. Updating the base period from 2011 (base period used in data included in the March 2018 memorandum) to a more recent year (2016) allows for better projections of which monitors will have problems attaining and/or maintaining the 2015 ozone NAAQS and factors in more recent base year DVs. The EPA notes that with a switch from 2011 base period meteorology to 2016 base period meteorology, it is normal and expected that the potential downwind nonattainment or maintenance receptors would change due to the different weather patterns that occurred in the different base periods, which impacts both the transport of pollutants from upwind states and what receptors have higher monitored values within nonattainment/maintenance regions.[46] Modeling using both the 2011 and 2016 based years consistently project that certain areas will have problems attaining and/or maintaining the 2015 ozone NAAQS including receptors in Texas.

2. Evaluation of Information Provided by ADEQ Regarding Step 2

As noted earlier, ADEQ utilized a 1 ppb threshold at Step 2 to identify whether the State was ''linked'' to a projected downwind nonattainment or maintenance receptor. ADEQ identified linkages for Arkansas to one 2023 projected maintenance receptor, Allegan County, MI, and no 2023 projected nonattainment receptors.

As discussed in the EPA's August 2018 memorandum, with appropriate additional analysis it may be reasonable for states to use a 1 ppb contribution threshold as an alternative to a 1 percent threshold, at Step 2 of the 4-Step interstate transport framework, for the purposes of identifying linkages to downwind receptors. However, the EPA's August 2018 memorandum provided that whether or not a 1 ppb threshold is appropriate must be based on an evaluation of state-specific circumstances, and no such evaluation was included in the state's submittal. Instead, ADEQ cited to the EPA's SILs Guidance as a basis to support the use of a 1 ppb threshold; however, ADEQ did not explain the relevance of the SILs Guidance to ADEQ's statutory obligation under the interstate transport provision. The SILs Guidance relates to a different provision of the Clean Air Act regarding implementation of the prevention of significant deterioration (PSD) permitting program, *i.e.,* a program that applies in areas that have been designated attainment of the NAAQS. The SILs Guidance is not applicable to the interstate transport provision, which requires states to eliminate significant contribution or interference with maintenance of the NAAQS at known and ongoing air quality problem areas in other states. The EPA does not, in this action, agree that the State has justified its application of the 1 ppb threshold. In any case, both the EPA's most recent modeling, EPA 2016v2 modeling, and the modeling relied on by ADEQ in its SIP submittal, indicate that the State is projected to contribute greater than both the 1 percent and alternative 1 ppb thresholds. While the EPA does not, in this action, propose to approve of the State's application of the 1 ppb threshold, because the State has linkages greater than 1 ppb to projected downwind nonattainment or maintenance receptors, (as shown in Table AR–2) the State's use of this alternative threshold at Step 2 of the 4-Step interstate framework would not alter our review and proposed disapproval of this SIP submittal.

Additionally, the EPA here shares further evaluation of its experience since the issuance of the August 2018 memorandum regarding use of alternative thresholds at Step 2. This experience leads the Agency to now believe it may not be appropriate to continue to attempt to recognize alternative contribution thresholds at Step 2. The August 2018 memorandum stated that ''it may be reasonable and appropriate'' for states to rely on an alternative threshold of 1 ppb threshold at Step 2. (The memorandum also indicated that any higher alternative threshold, such as 2 ppb, would likely not be appropriate.) However, the EPA also provided that ''air agencies should consider whether the recommendations in this guidance are appropriate for each situation.'' Following receipt and review of 49 interstate transport SIP submittals for the 2015 ozone NAAQS, the EPA's experience has been that nearly every state that attempted to rely on a 1 ppb threshold did not provide sufficient information and analysis to support a determination that an alternative threshold was reasonable or appropriate for that state.

For instance, in nearly all submittals, the states did not provide the EPA with analysis specific to their state or the receptors to which its emissions are potentially linked. In one case, the proposed approval of Iowa's SIP submittal, the EPA expended its own resources to attempt to supplement the information submitted by the state, in order to more thoroughly evaluate the state-specific circumstances that could

[45] Per the instructions in the Supplementary Information section above, all public comments, including comments on the EPA's air quality modeling should be submitted in the Regional docket for this action, Docket ID No. EPA–R06–OAR–2021–0801. Comments are not being accepted in Docket No. EPA–HQ–OAR–2021–0663.

[46] We note that ADEQ identified additional modeling performed by TCEQ and Midwest Ozone Group, but simply concluded that different modeling can lead to differences in DV projections and ozone contributions of these two alternative modeling analyses, only TCEQ's modeling using a 2012 base year identified receptors in Texas that projected different DVs for the Texas receptors identified in the EPA's 2011 base year. We discuss the EPA's review of the TCEQ's modeling elsewhere in this action and the Technical Support Document for this action ''EPA Region 6 2015 8-Hour Ozone Transport SIP Proposal Technical Support Document'' (EPA Region 6 2015 Ozone Transport SIP TSD.pdf) included in the Regional docket for this action (Docket ID No. EPA–R06–OAR–2021–0801), but we do conclude that TCEQ and recent monitoring data indicate that there are problematic receptors that are expected to be either nonattainment or maintenance receptors in 2023 including the Texas receptors that the EPA identified in our March 2018 memorandum with Arkansas linkages.

support approval.[47] It was at the EPA's sole discretion to perform this analysis in support of the state's submittal, and the Agency is not obligated to conduct supplemental analysis to fill the gaps whenever it believes a state's analysis is insufficient. The Agency no longer intends to undertake supplemental analysis of SIP submittals with respect to alternative thresholds at Step 2 for purposes of the 2015 ozone NAAQS.

Furthermore, the EPA's experience since 2018 is that allowing for alternative Step 2 thresholds may be impractical or otherwise inadvisable for a number of additional policy reasons. For a regional air pollutant such as ozone, consistency in requirements and expectations across all states is essential. Based on its review of submittals to-date and after further consideration of the policy implications of attempting to recognize an alternative Step 2 threshold for certain states, the Agency now believes the attempted use of different thresholds at Step 2 with respect to the 2015 ozone NAAQS raises substantial policy consistency and practical implementation concerns.[48] The availability of different thresholds at Step 2 has the potential to result in inconsistent application of interstate transport obligations based solely on the strength of a state's SIP submittal at Step 2 of the 4-Step interstate transport framework. From the perspective of ensuring effective regional implementation of interstate transport obligations, the more important analysis is the evaluation of the emissions reductions needed, if any, to address a state's significant contribution after consideration of a multifactor analysis at Step 3, including a detailed evaluation that considers air quality factors and cost. Where alternative thresholds for purposes of Step 2 may be ''similar'' in terms of capturing the relative amount of upwind contribution (as described in the August 2018 memorandum), nonetheless, use of an alternative threshold would allow certain states to avoid further evaluation of potential emission controls while other states must proceed to a Step 3 analysis. This can create significant equity and consistency problems among states.

Further, it is not clear that national ozone transport policy is best served by allowing for less stringent thresholds at Step 2. The EPA recognized in the August 2018 memorandum that there was some similarity in the amount of total upwind contribution captured (on a nationwide basis) between 1 percent and 1 ppb. However, the EPA notes that while this may be true in some sense, that is hardly a compelling basis to move to a 1 ppb threshold. Indeed, the 1 ppb threshold has the disadvantage of losing a certain amount of total upwind contribution for further evaluation at Step 3 (*e.g.,* roughly seven percent of total upwind state contribution was lost according to the modeling underlying the August 2018 memorandum; [49] in EPA 2016v2 modeling, the amount lost is five percent). Considering the core statutory objective of ensuring elimination of all significant contribution to nonattainment or interference of the NAAQS in other states and the broad, regional nature of the collective contribution problem with respect to ozone, there does not appear to be a compelling policy imperative in allowing some states to use a 1 ppb threshold while others rely on a 1 percent of NAAQS threshold.

Consistency with past interstate transport actions such as CSAPR, and the CSAPR Update and Revised CSAPR Update rulemakings (which used a Step 2 threshold of 1 percent of the NAAQS for two less stringent ozone NAAQS), is also important. Continuing to use a 1 percent of NAAQS approach ensures that as the NAAQS are revised and made more stringent, an appropriate increase in stringency at Step 2 occurs, so as to ensure an appropriately larger amount of total upwind-state contribution is captured for purposes of fully addressing interstate transport. *Accord* 76 FR 48237–38.

Therefore, notwithstanding the August 2018 memorandum's recognition of the potential viability of alternative Step 2 thresholds, and in particular, a potentially applicable 1 ppb threshold, the EPA's experience since the issuance of that memorandum has revealed substantial programmatic and policy difficulties in attempting to implement this approach. Nonetheless, the EPA is not, at this time, rescinding the August 2018 memorandum. The basis for the EPA's proposed disapproval of ADEQ's SIP submission with respect to the Step 2 analysis is, in the Agency's view, warranted even under the terms of the August 2018 memorandum. The EPA invites comment on this broader discussion of issues associated with alternative thresholds at Step 2. (See Supplementary Information section above for details and docket to submit comments). Depending on public comments received in relation to this action and further evaluation of this issue, the EPA may determine to rescind the 2018 memorandum in the future.

ADEQ included information in its SIP submission regarding back trajectories, emissions trends, and EGU cost controls to conclude that emissions from Arkansas should not be considered to contribute significantly to nonattainment or interfere with maintenance of the NAAQS in other states because there is not a persistent and consistent pattern of contribution from the State. While it is not entirely clear whether ADEQ was analyzing these factors under Step 2 or Step 3, the EPA is evaluating such arguments under Step 3, as we view these statements in the SIP submission to speak to whether or not a contribution is ''significant'' once a linkage is established.

3. Results of the EPA's Step 1 and Step 2 Modeling and Findings for Arkansas

As described in Section I of this action, the EPA performed air quality modeling using the 2016v2 emissions platform to project DVs and contributions for 2023 (EPA 2016v2 modeling). This data was examined to determine if Arkansas contributes at or above the threshold of 1 percent of the 2015 ozone NAAQS (0.70 ppb) to any downwind nonattainment or maintenance receptor. As shown in Table AR–2, the data [50] indicate that in 2023, emissions from Arkansas contribute greater than 1 percent of the standards to nonattainment or maintenance-only receptors in Texas: Denton County (Monitor ID. 481210034), Brazoria County (Monitor ID. 480391004), Harris County (Monitor ID. 482010055, Monitor ID. 482011034,

[47] ''Air Plan Approval; Iowa; Infrastructure State Implementation Plan Requirements for the 2015 Ozone National Ambient Air Quality Standard'', 85 FR 12232 (March 2, 2020). The agency received adverse comments on this proposed approval and has not taken final action with respect to this proposal.

[48] We note that Congress has placed on the EPA a general obligation to ensure the requirements of the CAA are implemented consistently across states and regions. *See* CAA section 301(a)(2). Where the management and regulation of interstate pollution levels spanning many states is at stake, consistency in application of CAA requirements is paramount.

[49] *See* August 2018 memorandum, at page 4.

[50] Design values and contributions at individual monitoring sites nationwide are provided in the file: 2016v2_DVs_state_contributions.xlsx which is included in docket ID No. EPA–HQ–OAR–2021–0663.

and Monitor ID. 482011035).[51] [52] Therefore, based on the EPA's evaluation of the information submitted by ADEQ, and based on the EPA model 2016v2 results for 2023, the EPA proposes to find that Arkansas is linked at Steps 1 and 2 and has an obligation to assess potential emissions reductions from sources or other emissions activity at Step 3 of the 4-Step framework.

TABLE AR–2—PROJECTED NONATTAINMENT AND MAINTENANCE RECEPTORS WITH ARKANSAS LINKAGES IN 2023 BASED ON EPA 2016V2 MODELING

Receptor (site ID, county, state)	Nonattainment/ maintenance	2023 average DV (ppb)	2023 maximum DV (ppb)	Arkansas contribution (ppb)
481210034, Denton, TX	Maintenance	70.4	72.2	0.76
480391004, Brazoria, TX	Maintenance	70.1	72.3	1.39
482010055, Harris, TX	Nonattainment	71.0	72.0	1.00
482011034, Harris, TX	Maintenance	70.3	71.6	1.38
482011035, Harris, TX	Maintenance	68.0	71.6	1.34

We recognize that the results of the EPA modeling released in the March 2018 memorandum (2011 base year) and the EPA 2016v2 modeling (2016 base year) identified different receptors and linkages at Steps 1 and 2 of the 4-Step framework. These differing results about receptors and linkages can be affected by the varying meteorology from year to year, but we do not think the differing results mean that the modeling or the EPA methodology for identifying receptors or linkages is inherently unreliable. Rather, these separate modeling runs indicated (1) that there were receptors that would struggle with nonattainment or maintenance in the future, and (2) that Arkansas was linked to some set of these receptors, even if the receptors and linkages differed from one another in their specifics (*e.g.,* a different set of receptors were identified to have nonattainment or maintenance problems, or Arkansas was linked to different receptors in one modeling run versus another). We think this common result indicates that Arkansas's emissions were substantial enough to generate linkages at Steps 1 and 2 to some set of downwind receptors, under varying assumptions and meteorological conditions, even if the precise set of linkages changed between modeling runs. Under these circumstances, we think it is appropriate to proceed to a Step 3 analysis to determine what portion of Arkansas's emissions should be deemed ''significant.'' In doing so, we are not considering our own earlier modeling results included in EPA's March 2018 memorandum to be of equal reliability relative to more recent EPA 2016v2 modeling. However, where alternative or older modeling generated linkages, even if those linkages differ from linkages in EPA 2016v2 modeling, that information provides further evidence, not less, in support of a conclusion that the state is required to proceed to Step 3 to further evaluate its emissions.

4. Evaluation of Information Provided by ADEQ Regarding Step 3

At Step 3 of the 4-Step framework, a state's emissions are further evaluated, in light of multiple factors, including air quality and cost considerations, to determine what, if any, emissions contribute significantly to nonattainment or interfere with maintenance and, thus, must be eliminated under CAA section 110(a)(2)(D)(i)(I).

ADEQ included in their SIP submission a further analysis of its modeled linkage to Allegan, MI (the only linked receptor it analyzed, based on its application of a 1 ppb threshold). Arkansas stated that the purpose and its conclusion of this analysis was that it would not contribute significantly to the Allegan, MI monitor because the state's emissions did not result in a consistent and persistent pattern of ozone contribution. As stated earlier, EPA 2016v2 modeling projects that the Allegan County, MI receptor will be attaining and is not expected to have difficulty maintaining the standard in 2023. As such, the EPA is not relying on the comparative analysis of emissions trends that ADEQ provided in order to conclude that Arkansas's emissions do not contribute significantly to a nonattainment or maintenance problem in Allegan, MI. We note however, that ADEQ's SIP submission and response to comments do not clearly define what ADEQ considers to be persistent and consistent pattern of contribution. Rather, the SIP submission simply states that contribution should be deemed ''significant'' only if there is a persistent and consistent pattern of several days with elevated ozone.

To be clear, the modeling establishing linkages of Arkansas to downwind nonattainment and maintenance receptors already establishes that there is a consistent and persistent pattern of contribution on elevated ozone days from Arkansas to other states. That is because EPA's methodology for projecting future year ozone concentrations accounts for precisely these concerns—the relative response factor[53] that is applied to historic monitored data to generate projections is calculated by looking only at days with elevated ozone levels (ten days is preferred with a minimum of five days). The EPA notes that monitored attainment with the ozone standard is determined by averaging the fourth high value recorded each year for three years. So, the EPA believes it is important to

[51] These modeling results are consistent with the results of a prior round of 2023 modeling using the 2016v1 emissions platform which became available to the public in the fall of 2020 in the Revised CSAPR Update, as noted in Section I of this action. That modeling showed that Arkansas had a maximum contribution greater than 0.70 ppb to at least one nonattainment or maintenance-only receptor in 2023. These modeling results are included in the file ''Ozone Design Values And Contributions Revised CSAPR Update.xlsx'' in docket EPA–HQ–OAR–2021–0663.

[52] Allegan County Monitor ID. 260050003 is not a receptor in 2023 in the EPA 2016v2 modeling. 2023 avg DV is 67.3 ppb and 2023 Max. DV is 68.4 ppb, so the Allegan County monitor is not a receptor in 2023 for nonattainment or maintenance.

[53] The relative response factor (RRF) is a ratio developed using the modeled changes between the base case and future case for high ozone modeled days. Typically, the 10 highest MDA8 modeled days in the base case are found and the maximum value from the 3x3 grid centered on the monitor for each day is used to calculate a 10-day average base case modeled value. Then a similar concentration average is developed for same 10 base case days and the same grid cell that provided the base case concentration to calculate a future year 10-day average modeled value using the future year modeling results. The RRF is then calculated by using this future year 10-day average model value divided by the base case year 10-day average model value to develop a ratio representing the change in modeled ozone. The RRF is then multiplied times the base DV value to result in a projected future year DV.

estimate impacts on the days with highest projected ozone levels. The EPA's approach, as detailed in the Air Quality Modeling Technical Support Document for 2015 Ozone NAAQS Transport SIP Proposed Actions included in Docket ID No. EPA–HQ–OAR–2021–0663, does this by estimating the average fy 2023 impact from an upwind state on the days with the highest projected ozone levels at the downwind nonattainment or maintenance receptor. The days chosen to analyze the future impacts are chosen initially by the selecting the ten highest days in the base period modeling that are projected to be above 65 ppb in the base period. If there are not ten days above 65 ppb at a potential receptor, the number of days above 65 ppb are used as long as there is at least five days above 65 ppb in the base period. If the air quality modeling shows fewer than five days above 65 ppb in the base period, then the data for impacts at that receptor in fy 2023 are not calculated. The base and future year modeling for these five to ten days is then used to project fy 2023 ozone DVs to determine whether it is projected to be a nonattainment or maintenance receptor in 2023. For the same five to ten days identified, the future year modeling provides the estimated daily contribution at a potential receptor's future year daily MDA8 and these daily contributions are averaged for the five to ten days to result in the average contribution from the upwind area.

As mentioned previously, ADEQ used HYSPLIT back trajectories to assess wind patterns on elevated ozone days in an attempt to demonstrate that there is not persistent and consistent pattern of contribution from Arkansas to the Allegan County, MI receptor. HYSPLIT back trajectory analyses use archived meteorological modeling that includes actual observed data (surface, upper air, airplane data, etc.) and modeled meteorological fields to estimate the most likely route of an air parcel transported to a receptor at a specified time. The method essentially follows a parcel of air backward in hourly steps for a specified length of time. HYSPLIT estimates the central path in both the vertical and horizontal planes. The HYSPLIT central path represents the centerline with the understanding that there are areas on each side horizontally and vertically that also contribute to the concentration at the end point monitor. The horizontal and vertical areas that potentially contribute to the end point concentration grow wider from the centerline the further back in time the trajectory goes. Therefore, a HYSPLIT centerline does not have to pass directly over emissions sources or emission source areas but merely relatively near emission source areas for those areas to contribute to concentrations at the endpoint. The EPA relies on back trajectory analysis as a corollary analysis along with observation-based meteorological wind fields at multiple heights to examine the general plausibility of the photochemical model ''linkages.'' Since the back trajectory calculations do not account for any air pollution formation, dispersion, transformation, or removal processes as influenced by emissions, chemistry, deposition, etc., the trajectories cannot be used to develop quantitative contributions. Therefore, back trajectories cannot be used to quantitatively evaluate the magnitude of the existing photochemical contributions from upwind states to downwind receptors. Chemical transport models, such as the one relied upon by Arkansas to establish the linkage between Arkansas and those downwind receptors in the first instance, do take these factors into account and therefore provide a more robust assessment of ozone contribution.

During ADEQ's public comment period, the EPA submitted comments noting concerns regarding the methodology ADEQ used in their HYSPLIT back trajectories analysis.[54] While we are not providing a detailed evaluation of ADEQ's HYSPLIT analysis in this rulemaking, we do note that our review identified a number of concerns with how ADEQ screened out a number of back trajectories, which invalidates ADEQ's conclusions.[55] While we disagree with ADEQ's methodologies and conclusions, we note that ADEQ's HYSPLIT back trajectory information did not show that the base years used in the EPA modeling (2011 and 2016) demonstrated an unusual amount of transport of air parcels from Arkansas to nonattainment or maintenance receptors in downwind states (*i.e.,* the modeling years used by the EPA do not skew the results toward finding linkages).[56] Therefore, although Arkansas asserted that its additional air quality factor analysis using back trajectory analysis is a permissible way to interpret which contributions are ''significant'' because that analysis examines whether there was a ''persistent and consistent pattern of contribution on several days with elevated ozone,'' the modeled linkage at Step 2 is a superior approach for assessing the persistence of a state's contribution. It is superior because it is based on the average of the contributions on the five to ten highest ozone days. Considering the form of the standard, this is a sufficient number of days to determine if an impact is persistent enough to impact an area's ability to attain or maintain the standard. The modeling is also a better method because it accounts for dispersion while back trajectory analysis as performed by Arkansas only shows the centerline of air parcel travel and otherwise will leave out days when Arkansas would have contributed to downwind problems. Finally, because the modeling accounts for dispersion and chemical reactions, it can provide a quantitative estimate of contribution.

ADEQ also contested the significance of its modeled contribution above 1 ppb based on the relatively larger contributions of other upwind states to the receptor to which it was linked. The EPA disagrees that a state's small contribution relative to other upwind states is a permissible basis for finding no obligation under the interstate transport provision. CAA 110(a)(2)(D)(i)(I) requires states and the EPA to address interstate transport of air pollution that *contributes to* downwind states' ability to attain and maintain the NAAQS. Whether emissions from other states also contribute to the same downwind air quality issue is irrelevant in assessing whether a downwind state has an air quality problem, or whether an upwind state is significantly contributing to that problem. States are not obligated under CAA section 110(a)(2)(D)(i)(I) to reduce emissions sufficient on their own to resolve

[54] The EPA reviewed the ADEQ SIP submission and provided comments during the State's public comment period for the proposed SIP action. The EPA's comment letter and ADEQ's response to comments are included in ADEQ's October 19, 2019, SIP submission, which is available in the Regional docket for this action (Docket ID No. EPA–R06–OAR–2021–0801).

[55] Concerns included removing of HYSPLIT back trajectories based on start height, the start time that Arkansas used for the back trajectories and removing of back trajectories when the centerline passed near but not through Arkansas because Arkansas has some very large point sources near the Arkansas state line that could be contributing. Texas also screened their HYPSLIT back trajectories similarly to Arkansas and we have further discussed our concerns and why such screening invalidates conclusions from the HYSPLIT back trajectory analyses. *See* EPA's review and conclusions in discussion of TCEQ's HYSPLIT analyses in the ''EPA Region 6 2015 8-Hour Ozone Transport SIP Proposal Technical Support Document'' (EPA Region 6 2015 Ozone Transport SIP TSD.pdf) included in the Regional docket for this action (Docket ID No. EPA–R06–OAR–2021–0801).

[56] ADEQ's summary of trajectories indicated that 2011 had three linked back trajectories and 2016 had one linked back trajectories and the EPA calculated the average for 2008–2017 in ADEQ's table was 2.2 linked back trajectories per year.

downwind receptors' nonattainment or maintenance problems. Rather, states are obligated to eliminate their own ''significant contribution'' or ''interference'' with the ability of other states to attain or maintain the NAAQS. Indeed, the D.C. Circuit in *Wisconsin* specifically rejected arguments suggesting that upwind states should be excused from interstate transport obligations on the basis that some other source of emissions (whether international or another upwind state) could be considered the ''but-for'' cause of downwind air quality problem. 938 F.3d 303 at 323–324. The court viewed these arguments as essentially an argument ''that an upwind State 'contributes significantly' to downwind nonattainment only when its emissions are the sole cause of downwind nonattainment.'' 938 F.3d 303 at 324. The court explained that ''an upwind State can 'contribute' to downwind nonattainment even if its emissions are not the but-for cause.'' *Id.* At 324–325. *See also Catawba County* v. *EPA,* 571 F.3d 20, 39 (D.C. Cir. 2009) (rejecting the argument ''that 'significantly contribute' unambiguously means 'strictly cause''' because there is ''no reason why the statute precludes EPA from determining that [an] addition of [pollutant] into the atmosphere is significant even though a nearby county's nonattainment problem would still persist in its absence''); *Miss. Comm'n on Envtl. Quality* v. *EPA,* 790 F.3d 138, 163 n.12 (D.C. Cir. 2015) (observing that the argument that ''there likely would have been no violation at all . . . if it were not for the emissions resulting from [another source]'' is ''merely a rephrasing of the but-for causation rule that we rejected in *Catawba County*.''). Therefore, a state is not excused from eliminating its significant contribution on the basis that emissions from other states also contribute some amount of pollution to the same receptors to which the state is linked.

ADEQ did not provide additional analysis for other receptors to which it was linked above 1 percent in the air quality modeling upon which it relied, and to which it continues to be linked in EPA 2016v2 modeling. To effectively evaluate which emissions in the state should be deemed ''significant'' and therefore prohibited, states generally should prepare an accounting of sources and other emissions activity for relevant pollutants and assess potential, additional emissions reduction opportunities and resulting downwind air quality improvements. The EPA has consistently applied this general approach (*i.e.,* Step 3 of the 4-Step interstate transport framework) when identifying emissions contributions that the Agency has determined to be ''significant'' (or interfere with maintenance) in each of its prior Federal, regional ozone transport rulemakings, and this interpretation of the statute has been upheld by the Supreme Court. *See EME Homer City,* 572 U.S. 489, 519 (2014). While the EPA has not directed states that they must conduct a Step 3 analysis in precisely the manner the EPA has done in its prior regional transport rulemakings, state implementation plans addressing the obligations in CAA section 110(a)(2)(D)(i)(I) must prohibit ''any source or other type of emissions activity within the State'' from emitting air pollutants which will contribute significantly to downwind air quality problems. Thus, states must complete something similar to the EPA's analysis (or an alternative approach to defining ''significance'' that comports with the statute's objectives) to determine whether and to what degree emissions from a state should be ''prohibited'' to eliminate emissions that will ''contribute significantly to nonattainment in, or interfere with maintenance of'' the NAAQS in any other state. As discussed below, ADEQ did not conduct an adequate analysis in their SIP submission. We therefore propose that ADEQ was required to analyze emissions from the sources and other emissions activity from within the State to determine whether its contributions were significant, and we propose to disapprove its submission because Arkansas failed to adequately do so.

In analyzing potential additional NO_X controls, ADEQ found that additional controls on its EGUs would exceed the cost-effectiveness thresholds identified in the CSAPR and CSAPR Update rules. For the cost analysis, Arkansas only focused on the potential costs of NO_X controls for EGUs. As stated above, Arkansas found that the costs to install additional NO_X controls (selective catalytic reduction, SCR, and selective noncatalytic reduction, SNCR) at electric generating units (EGUs) exceed EPA's cost thresholds used for the CSAPR and CSAPR Update rules. Based on the projected cost of these controls relative to the thresholds used in those two prior EPA rules, Arkansas concluded that no new controls beyond those Federal and State regulations already in existence were cost-effective, especially considering that Allegan County, MI is projected to be in attainment with the 2015 ozone NAAQS and Arkansas's small contribution relative to other states potentially linked to Allegan County, MI based on EPA's modeling.

Arkansas's analysis is inadequate because its focus is only on EGUs.[57] *See Wisconsin,* 938 F.3d at 318–20. We also find Arkansas's conclusions as to the availability of cost-effective controls for EGUs to be inadequate. Relying on the CSAPR Update's (or any other CAA program's) determination of cost-effectiveness without further Step 3 analysis is not approvable. Cost-effectiveness must be assessed in the context of the specific CAA program; assessing cost-effectiveness in the context of ozone transport should reflect a more comprehensive evaluation of the nature of the interstate transport problem, the total emissions reductions available at several cost thresholds, and the potential air quality impacts of those reductions at downwind receptors. While the EPA has not established a benchmark cost-effectiveness value for 2015 ozone NAAQS interstate transport obligations, because the 2015 ozone NAAQS is a more stringent and more protective air quality standard, it is reasonable to expect control measures or strategies to address interstate transport under this NAAQS to reflect higher marginal control costs. ADEQ's submission failed to provide a justification for why the $1400/ton threshold used in the CSAPR Update is appropriate to rely on for the 2015 ozone NAAQS. ADEQ's analysis does not consider any air quality impacts of assessed controls at downwind receptors. As stated above, assessing cost-effectiveness in the context of ozone transport requires more than just assessing the cost of controls per ton of NO_X removed. As such, ADEQ's assessment of the cost of controls and reliance on the marginal cost threshold of $1,400/ton used for the CSAPR Update is inadequate. Furthermore, EPA 2016v2 modeling captures all existing CSAPR trading programs in the baseline and confirms that these control programs were not sufficient to eliminate Arkansas's linkage at Steps 1 and 2 under the 2015 ozone NAAQS. The State was therefore obligated at Step 3 to assess *additional* control measures using a multifactor analysis.

[57] In 2017, National Emission Inventory (NEI) NO_X emissions from EGU sources represent 56% percent of the total NOx emissions categories in Arkansas that report emissions to the NEI. *See* AR NOx.xlsx datasheet included in the Regional docket for this action (Docket ID No. EPA–R06–OAR–2021–0801).

5. Evaluation of Information Provided by ADEQ Regarding Step 4

Step 4 of the 4-Step interstate transport framework calls for the development of permanent and federally enforceable control strategies to achieve the emissions reductions determined to be necessary at Step 3 to eliminate significant contribution to nonattainment or interference with maintenance of the NAAQS. ADEQ's SIP submission, which looked only at additional NO_X controls at EGUs and dismissed such controls as not cost-effective relative to the thresholds established in earlier EPA transport rules, did not constitute an adequate emission reduction analysis at Step 3. Based on its conclusions, ADEQ did not revise its SIP to include any emission reductions. As a result, the EPA proposes to disapprove ADEQ's submittal on the separate, additional basis that Arkansas has not developed or included permanent and enforceable emissions reductions in its SIP necessary to meet the obligations of CAA section 110(a)(2)(D)(i)(I).

6. Conclusion

Based on the EPA's evaluation of ADEQ's SIP submission, the EPA is proposing to find that ADEQ's October 19, 2019, SIP submission addressing CAA section 110(a)(2)(D)(i)(I) does not meet the State's interstate transport obligations because it fails to contain the necessary provisions to eliminate emissions that will contribute significantly to nonattainment or interfere with maintenance of the 2015 ozone NAAQS in any other state.

III. Louisiana SIP Submission Addressing Interstate Transport of Air Pollution for the 2015 Ozone NAAQS and the EPA Evaluation of the SIP Submission

A. Summary of LDEQ SIP Submission Addressing Interstate Transport of Air Pollution for the 2015 Ozone NAAQS

On November 13, 2019, the Louisiana Department of Environmental Quality (LDEQ) made a SIP submission addressing the State of Louisiana's interstate transport of air pollution for the 2015 ozone NAAQS. The SIP submission provided LDEQ's analysis of Louisiana's impact to downwind states and concluded that emissions from Louisiana will not contribute significantly to nonattainment or interfere with maintenance of the 2015 ozone NAAQS in other states.

The LDEQ's SIP submission provided an analysis of Louisiana's air emissions impact to downwind states using a 3-Step alternative framework similar to the EPA's 4-Step framework. LDEQ's 3-Step alternative framework includes: Step 1: Identify monitors projected to be in nonattainment or have maintenance issues in a future year; Step 2: Identify projected nonattainment and/or maintenance monitors in other states that might be impacted by emissions from Louisiana, tagging them for further review; and, Step 3: Determine if emissions from Louisiana contribute significantly to nonattainment or interfere with maintenance at the monitors tagged for review in Step 2. LDEQ noted that its Step 1 is identical to the EPA's Step 1, and its Steps 2 and 3 are equivalent to the EPA's Step 2. Louisiana further noted that Steps 3 and 4 of the EPA's 4-Step framework are relevant only if emissions from Louisiana contribute significantly to nonattainment or interfere with maintenance at downwind monitors in another state.

LDEQ's Step 1 was to identify downwind monitors projected to be in nonattainment and/or have maintenance issues in future year 2023 (fy 2023). At this step, LDEQ relied on the EPA's interstate transport modeling results that are included as an attachment to the March 2018 memorandum. The EPA March 2018 modeling results provided: (1) Projected average DV and maximum DV for 2023 for the ozone monitors (or ''receptors'') in the 48 contiguous states and (2) the expected contribution of state emissions to the projected ozone concentrations at each ozone monitor.

LDEQ used a contribution threshold of 1 ppb in LDEQ's Step 2 to identify projected nonattainment and/or maintenance receptors in other states that might be impacted by emissions from Louisiana and tagged them for further review. To support a 1 ppb contribution threshold, LDEQ's submission stated that a 1 percent threshold is inappropriate because that value is not detectable by a monitor and the value of 1 percent of the 2015 ozone NAAQS would be truncated to zero if calculated in accordance with the method for determining DVs for the ozone NAAQS. LDEQ also stated that the more stringent threshold of 1 percent of the NAAQS (0.7 ppb) is an order of magnitude smaller than the biases and errors typically documented for regional photochemical modeling.[58] Based on LDEQ's approach of evaluating linkages at the 1 ppb threshold, five Texas receptors were identified by Louisiana for analysis. The Texas receptors and corresponding receptor data presented in Louisiana's SIP are summarized further in this notice in Table LA–1.[59] The March 2018 memorandum identified monitors in Allegan, Michigan and Milwaukee and Sheboygan, Wisconsin as potential nonattainment and maintenance-only receptors linked to emissions from Louisiana based on 1 percent of the NAAQS threshold. However, Louisiana did not include the Allegan, Michigan and Milwaukee and Sheboygan, Wisconsin receptors in the State's analysis because the March 2018 memorandum shows that Louisiana's projected modeled contribution values to each receptor is less than 1 ppb.

TABLE LA–1—PROJECTED NONATTAINMENT AND MAINTENANCE RECEPTORS IDENTIFIED BY LOUISIANA BASED ON THE EPA'S MARCH 2018 MEMORANDUM

Receptor (site ID, county, state)	2023 Average DV (ppb) [60]	2023 Maximum DV (ppb) [61]	Louisiana Contribution (ppb)
480391004, Brazoria, TX	74.0	74.9	3.80

[58] The Louisiana SIP submittal did not provide a specific citation to the Simon et al., 2012 reference to support this assertion. However, we believe the reference is associated with the following article: Simon, H., Baker, K.R., Phillips, S., 2012. ''Compilation and interpretation of photochemical model performance statistics published between 2006 and 2012''. Atmospheric Environment 61, 124–139.

[59] The five potential nonattainment and maintenance receptor monitors identified by LDEQ are from the Dallas-Fort Worth and Houston-Galveston-Brazoria, TX nonattainment areas for the 2015 ozone NAAQS. The Louisiana SIP submittal appears to have inadvertently omitted Harris County, TX Monitor ID No. 482011034 for analysis. EPA's March 2018 memorandum identified this monitor as a maintenance receptor with a contribution of 3.38 ppb from Louisiana emissions.

TABLE LA–1—PROJECTED NONATTAINMENT AND MAINTENANCE RECEPTORS IDENTIFIED BY LOUISIANA BASED ON THE EPA'S MARCH 2018 MEMORANDUM—Continued

Receptor (site ID, county, state)	2023 Average DV (ppb) [60]	2023 Maximum DV (ppb) [61]	Louisiana Contribution (ppb)
482011039, Harris, TX	71.8	73.5	4.72
484392003, Tarrant, TX	72.5	74.8	1.71
481210034, Denton, TX	69.7	72.0	1.92
482010024, Harris, TX	70.4	72.8	4.72

ForLDEQ's Step 3, Louisiana stated that an air emission contribution from the State should only be considered significant if there is a persistent and consistent pattern of contribution on several days with elevated ozone. In trying to determine whether there is a persistent and consistent pattern of contribution, LDEQ analyzed seasonal weather patterns, surface wind directions, and periodic back trajectories. LDEQ used the National Oceanic and Atmospheric Administration (NOAA) Hybrid Single Particle Lagrangian Integrated Trajectory (HYSPLIT) [62] model to perform 99 back trajectories for exceedances from the receptor monitors identified in Table LA–1 for 2016, 2017, and 2018. Based on an analysis of the HYSPLIT results, LDEQ stated that approximately 28% of the trajectories travel in or through Louisiana, and only 8% of those back trajectories originate in the State. The SIP submission also stated that a comparison of the EPA's modeled contribution between Texas and Louisiana monitors indicates that a far greater proportion of the total ozone detected in Louisiana originates in Texas rather than vice versa. Therefore, Louisiana concluded that the impact from the State's air emissions was insignificant to the overall attainment at the receptor monitors identified in Table LA–1 and does not significantly contribute to nonattainment or interfere with maintenance of the 2015 ozone NAAQS in other states.

B. EPA Evaluation of the LDEQ SIP Submission

The EPA is proposing to find that LDEQ's November 13, 2019, SIP submission does not meet the State's obligations with respect to prohibiting emissions that contribute significantly to nonattainment or interfere with maintenance of the 2015 NAAQS in any other state based on the EPA's evaluation of the SIP submission using the 4-Step interstate transport framework, and the EPA is therefore proposing to disapprove Louisiana's SIP submission.

1. Evaluation of Information Provided by LDEQ Regarding Steps 1 and 2

At Step 1 of the 4-Step interstate transport framework, LDEQ relied on EPA modeling released in the March 2018 memorandum to identify nonattainment and maintenance receptors in 2023. At Step 2 of the 4-Step interstate transport framework, LDEQ relied on the EPA modeling released in the March 2018 memorandum to identify upwind state linkages to nonattainment and maintenance receptors in 2023. LDEQ additionally utilized a 1 ppb threshold at Step 2 to identify whether the state was ''linked'' to a projected downwind nonattainment or maintenance receptor. As discussed in the EPA's August 2018 memorandum, with appropriate additional analysis it may be reasonable for states to use a 1 ppb contribution threshold, as an alternative to a 1 percent threshold, at Step 2 of the 4-Step interstate transport framework, for the purposes of identifying linkages to downwind receptors. In any case, the State is projected to contribute greater than both the 1 percent and the alternative 1 ppb thresholds to receptors in Texas, regardless of whether we look at LDEQ's analysis (which relied on the EPA's older modeling) or updated modeling the EPA has performed in advance of this proposal. As seen in the tables LA–1 and LA–2, Louisiana contributes nearly five times the 1 ppb threshold to nonattainment or maintenance receptors in Texas. Therefore, while the EPA does not, in this action, approve of the State's application of the 1 ppb threshold, because the State has linkages greater than 1 ppb to projected downwind nonattainment or maintenance receptors, the State's use of this alternative threshold at Step 2 of the 4-Step interstate framework would not alter our review and proposed disapproval of this SIP submittal.

The EPA here shares further evaluation of its experience since the issuance of the August 2018 memorandum regarding use of alternative thresholds at Step 2. This experience leads the Agency to now believe it may not be appropriate to continue to attempt to recognize alternative contribution thresholds at Step 2. The August 2018 memorandum stated that ''it may be reasonable and appropriate'' for states to rely on an alternative threshold of 1 ppb threshold at Step 2.[63] (The memorandum also indicated that any higher alternative threshold, such as 2 ppb, would likely not be appropriate.) However, the EPA also provided that ''air agencies should consider whether the recommendations in this guidance are appropriate for each situation.'' Following receipt and review of 49 interstate transport SIP submittals for the 2015 ozone NAAQS, the EPA's experience has been that nearly every state that attempted to rely on a 1 ppb threshold did not provide sufficient information and analysis to support a determination that an alternative threshold was reasonable or appropriate for that state.

For instance, in nearly all submittals, the states did not provide the EPA with analysis specific to their state or the receptors to which its emissions are potentially linked. In one case, the proposed approval of Iowa's SIP submittal, the EPA expended its own resources to attempt to supplement the information submitted by the state, in order to more thoroughly evaluate the state-specific circumstances that could support approval.[64] The Agency no longer intends to undertake supplemental analysis of SIP submittals with respect to alternative thresholds at Step 2 for purposes of the 2015 ozone NAAQS.

Furthermore, the EPA's experience since 2018 is that allowing for alternative Step 2 thresholds may be

[60] Information added from the EPA's March 2018 memorandum.

[61] *Id.*

[62] *See* FN 34.

[63] *See* August 2018 memorandum, at page 4.

[64] ''Air Plan Approval; Iowa; Infrastructure State Implementation Plan Requirements for the 2015 Ozone National Ambient Air Quality Standard'', 85 FR 12232 (March 2, 2020). The Agency received adverse comments on this proposed approval and has not taken final action with respect to this proposal.

impractical or otherwise inadvisable for a number of additional policy reasons. For a regional air pollutant such as ozone, consistency in requirements and expectations across all states is essential. Based on its review of submittals to-date and after further consideration of the policy implications of attempting to recognize an alternative Step 2 threshold for certain states, the Agency now believes the attempted use of different thresholds at Step 2 with respect to the 2015 ozone NAAQS raises substantial policy consistency and practical implementation concerns.[65] The availability of different thresholds at Step 2 has the potential to result in inconsistent application of interstate transport obligations based solely on the strength of a state's SIP submittal at Step 2 of the 4-Step interstate transport framework. From the perspective of ensuring effective regional implementation of interstate transport obligations, the more important analysis is the evaluation of the emissions reductions needed, if any, to address a state's significant contribution after consideration of a multifactor analysis at Step 3, including a detailed evaluation that considers air quality factors and cost. Where alternative thresholds for purposes of Step 2 may be ''similar'' in terms of capturing the relative amount of upwind contribution (as described in the August 2018 memorandum), nonetheless, use of an alternative threshold would allow certain states to avoid further evaluation of potential emission controls while other states must proceed to a Step 3 analysis. This can create significant equity and consistency problems among states.

Further, it is not clear that national ozone transport policy is best served by allowing for less stringent thresholds at Step 2. The EPA recognized in the August 2018 memorandum that there was some similarity in the amount of total upwind contribution captured (on a nationwide basis) between 1 percent and 1 ppb. However, the EPA notes that while this may be true in some sense, that is not a compelling basis to move to a 1 ppb threshold. Indeed, the 1 ppb threshold has the disadvantage of losing a certain amount of total upwind contribution for further evaluation at Step 3 (*e.g.,* roughly seven percent of total upwind state contribution was lost according to the modeling underlying the August 2018 memorandum;[66] in the EPA's updated modeling, the amount lost is five percent). Considering the core statutory objective of ensuring elimination of all significant contribution to nonattainment or interference of the NAAQS in other states and the broad, regional nature of the collective contribution problem with respect to ozone, there does not appear to be a compelling policy imperative in allowing some states to use a 1 ppb threshold while others rely on a 1 percent of NAAQS threshold.

Consistency with past interstate transport actions such as CSAPR, and the CSAPR Update and Revised CSAPR Update rulemakings (which used a Step 2 threshold of 1 percent of the NAAQS for two less stringent ozone NAAQS), is also important. Continuing to use a 1 percent of NAAQS approach ensures that as the NAAQS are revised and made more stringent, an appropriate increase in stringency at Step 2 occurs, so as to ensure an appropriately larger amount of total upwind-state contribution is captured for purposes of fully addressing interstate transport. *Accord* 76 FR 48237–38.

Therefore, notwithstanding the August 2018 memorandum's recognition of the potential viability of alternative Step 2 thresholds, and in particular, a potentially applicable 1 ppb threshold, the EPA's experience since the issuance of that memorandum has revealed substantial programmatic and policy difficulties in attempting to implement this approach. Nonetheless, the EPA is not at this time rescinding the August 2018 memorandum. The basis for a proposed disapproval of LDEQ's SIP submission with respect to the Step 2 analysis we believe is warranted under the terms of the August 2018 memorandum. The EPA invites comment on this broader discussion of issues associated with alternative thresholds at Step 2. Depending on public comments received and further evaluation of this issue, the EPA may determine to rescind the 2018 memorandum in the future.

2. Results of the EPA's Step 1 and Step 2 Modeling and Findings for Louisiana

As described in Section I of this action, the EPA performed air quality modeling using the 2016v2 emissions platform to project DVs and contributions for 2023.[67] This data was examined to determine if Louisiana contributes at or above the threshold of 1 percent of the 2015 ozone NAAQS (0.70 ppb) to any downwind nonattainment or maintenance receptor. As shown in Table LA–2, the data[68] indicate that in 2023, emissions from Louisiana contributed greater than 1 percent of the standards to nonattainment or maintenance-only receptors in Texas.[69] Therefore, based on the EPA's evaluation of the information submitted by LDEQ, and based on the EPA's most recent modeling results for 2023, the EPA proposes to find that Louisiana is linked at Steps 1 and 2 and has an obligation to assess potential emissions reductions from sources or other emissions activity at Step 3 of the 4-Step framework.

TABLE LA–2—PROJECTED NONATTAINMENT AND MAINTENANCE RECEPTORS WITH LOUISIANA LINKAGES BASED ON EPA 2016V2 MODELING

Receptor (site ID, county, state)	Nonattainment/ maintenance	2023 Average DV (ppb)	2023 Maximum DV (ppb)	Louisiana Contribution (ppb)
482010024, Harris, TX	Nonattainment	75.2	76.8	4.31
482010055, Harris, TX	Nonattainment	71.0	72.0	5.39
480391004, Brazoria, TX	Maintenance	70.1	72.3	7.03

[65] We note that Congress has placed on the EPA a general obligation to ensure the requirements of the CAA are implemented consistently across states and regions. *See* CAA section 301(a)(2). Where the management and regulation of interstate pollution levels spanning many states is at stake, consistency in application of CAA requirements is paramount.

[66] *See* August 2018 memorandum, at page 4.

[67] Per the instructions in the Supplementary Information section above, all public comments, including comments on the EPA's air quality modeling should be submitted in the Regional docket for this action, Docket ID No. EPA–R06–OAR–2021–0801. Comments are not being accepted in Docket No. EPA–HQ–OAR–2021–0663.

[68] DVs and contributions at individual monitoring sites nationwide are provided in the file: ''2016v2_DVs_state_contributions.xlsx'', which is included in Docket ID No. EPA–HQ–OAR–2021–0663.

[69] These modeling results are consistent with the results of a prior round of 2023 modeling using the 2016v1 emissions platform, which became available to the public in the fall of 2020 in the Revised CSAPR Update, as noted in Section I of this action. That modeling showed that Louisiana had a maximum contribution greater than 0.70 ppb to at least one nonattainment or maintenance-only receptor in 2023. These modeling results are included in the file ''Ozone DVs And Contributions Revised CSAPR Update.xlsx'' in Docket No. EPA–HQ–OAR–2021–0663.

TABLE LA–2—PROJECTED NONATTAINMENT AND MAINTENANCE RECEPTORS WITH LOUISIANA LINKAGES BASED ON EPA 2016V2 MODELING—Continued

Receptor (site ID, county, state)	Nonattainment/ maintenance	2023 Average DV (ppb)	2023 Maximum DV (ppb)	Louisiana Contribution (ppb)
481210034, Denton, TX	Maintenance	70.4	72.2	3.22
482011034, Harris, TX	Maintenance	70.3	71.6	4.93
482011035, Harris, TX	Maintenance	68.0	71.6	4.77

3. Evaluation of Information Provided by LDEQ Regarding Step 3

At Step 3 of the 4-Step interstate transport framework, a state's emissions are further evaluated, in light of multiple factors, including air quality and cost considerations, to determine what, if any, emissions contribute significantly to nonattainment or interfere with maintenance and, thus, must be eliminated under CAA section 110(a)(2)(D)(i)(I).

To effectively evaluate which emissions in the state should be deemed ''significant'' and therefore prohibited, states generally should prepare an accounting of sources and other emissions activity for relevant pollutants and assess potential, additional emissions reduction opportunities and resulting downwind air quality improvements. The EPA has consistently applied this approach (*i.e.,* Step 3 of the 4-Step interstate transport framework) when identifying emissions contributions that the Agency has determined to be ''significant'' (or interfere with maintenance) in each of its prior Federal, regional ozone transport rulemakings, and this interpretation of the statute has been upheld by the Supreme Court. *See EME Homer City,* 572 U.S. 489, 519 (2014). While the EPA has not directed states that they must conduct a Step 3 analysis in precisely the manner the EPA has done in its prior regional transport rulemakings, state implementation plans addressing the obligations in CAA section 110(a)(2)(D)(i)(I) must prohibit ''any source or other type of emissions activity within the State'' from emitting air pollutants which will contribute significantly to downwind air quality problems. Thus, states must complete an analysis similar to the EPA's (or an alternative approach to defining ''significance'' that comports with CAA requirements) to determine whether, and to what degree, emissions from a state should be ''prohibited'' to eliminate emissions that will ''contribute significantly to nonattainment, or interfere with maintenance of'' the NAAQS in any other state. LDEQ did not conduct such an analysis in their SIP submission. Instead LDEQ interpreted the Act's requirements as only requiring an analysis of emission reductions where there was a ''consistent and persistent'' pattern of contribution and conducted an air-quality-only analysis in order to refute such a pattern. We propose to find that LDEQ was required to analyze emissions from the sources and other emissions activity from within Louisiana to determine whether its contributions were significant, and we propose to disapprove its submission because LDEQ did not do so.

As noted, LDEQ stated in its SIP submission that emissions from Louisiana should not be considered to contribute significantly to nonattainment or interfere with maintenance of the NAAQS in other states because there is not a ''persistent and consistent'' pattern of contribution from the State. The SIP submission does not explain what LDEQ considers to be a persistent and consistent pattern of contribution, even after the LDEQ received a comment during its state comment period that requested that the LDEQ define ''persistent and consistent'' in terms of impacts on downwind states. The LDEQ responded, ''Louisiana has defined the pattern and has provided back trajectories on those monitored exceedances for the 2016–2018 ozone seasons, which will show that the definition is applicable to the conclusion.'' [70] We do not agree that this suffices as an explanation as to why LDEQ does not need to further analyze its potential emission reductions under Step 3 before determining it has no statutory obligation under the interstate transport provision. In the case of Louisiana, modeling in the March 2018 memorandum and the EPA's more recent 2016v2 modeling both project that receptors in the Houston-Galveston-Brazoria (HGB) and Dallas-Fort Worth (DFW) ozone nonattainment areas in Texas will have difficulty attaining or maintaining the 2015 ozone NAAQS, and Louisiana's contribution to these areas exceed both a 1 percent or a 1 ppb threshold. While linkages to specific receptors may change with updated modeling, both modeling analyses consistently show emissions from Louisiana impact both downwind nonattainment receptors and downwind maintenance receptors in Texas.

The LDEQ SIP submission stated that Louisiana's contribution should be deemed ''significant'' per CAA section 110(a)(2)(D)(i)(I) only if there is a persistent and consistent pattern of contribution on several days with elevated ozone. LDEQ asserted that its linkages to Texas do not warrant further analysis because, according to LDEQ, emissions from Louisiana do not persistently and consistently contribute on several days of elevated ozone. However, the EPA modeling that LDEQ relied upon to demonstrate linkages in the first instance already establishes that there is a consistent and persistent pattern of contribution from Louisiana to Texas receptors on elevated ozone days. The EPA's methodology for projecting future year ozone concentrations accounts for precisely these concerns—the relative response factor [71] that is applied to historic monitored data to generate projections is calculated by looking only at days with elevated ozone levels. The EPA notes that monitored attainment with the ozone standard is determined by averaging the fourth high value recorded each year for three years. So, the EPA believes it is important to estimate impacts on the days with highest projected ozone levels. The days chosen to analyze the future impacts are chosen initially by the selecting the 10 highest days in the base period modeling that are projected to be above 65 ppb in the base period. If there are not 10 days above 65 ppb at a potential receptor, the number of days above 65 ppb are used so long as there is at least five days above 65 ppb in the base period. If the air quality modeling shows fewer than five days above 65 ppb in the base period, then the data for impacts at that receptor in 2023 are not calculated. The base and future year modeling for these

[70] *See* LDEQ SIP Submission, Appendix A, available in the Regional docket for this action (Docket ID No. EPA–R06–OAR–2021–0801).

[71] *See* FN 53.

5–10 days are then used to project 2023 ozone DVs to determine whether it is projected to be a nonattainment or maintenance receptor in 2023. For these same 5–10 days identified, the future year modeling provides the estimated daily contribution at a potential receptor's future year daily MDA8 and these daily contributions are averaged for the 5–10 days to result in the average contribution from the upwind area.

LDEQ's air quality analysis used to dismiss its linkages to Texas receptors as not ''significant'' consists of an evaluation of seasonal weather patterns, surface wind directions, and periodic back trajectories. The State's weather pattern analysis relied on large-scale weather patterns as they relate to commonly observed wind directions rather than weather patterns and conditions that are specifically conducive to ozone formation or tied to specific days when high ozone was monitored in the downwind areas. General weather pattern discussions that are not associated with specific ozone episodes are not generally informative of interstate transport decisions. It is necessary to investigate specific instances of high ozone, because as discussed previously, violations of the ozone standard can be driven by as few as 4 days per year because the compliance with the standard is evaluated based on the average of the fourth high value measured each of three consecutive years.

LDEQ's wind rose analysis is based on surface sites in the Dallas-Fort Worth areas, Houston-Galveston-Brazoria areas, and other areas in Texas and Louisiana, but the analysis does not address transport winds between Louisiana and the Texas areas with receptors on high ozone days at the identified receptors. There are several limitations associated with LDEQ's wind rose analysis: (1) Wind directions measured at the surface are not necessarily good indicators of the wind direction occurring at higher elevations, which tend to have a stronger influence on interstate ozone transport; (2) wind directions change spatially over the range of distance involved in transport from Louisiana to Texas; (3) wind directions change temporally over the range of time involved in ozone transport from Louisiana to Texas; and (4) the wind roses are based on wind data measured throughout the year, not just during either ozone season or monitored ozone episode days. In addition, as discussed previously, LDEQ's wind rose analysis is not limited to the wind conditions that are conducive to high ozone, so it does not provide information directly pertinent to when ozone is high at areas in Texas and whether Louisiana is a contributing area during those specific times.

LDEQ also included 99 back trajectory analyses during the 2016, 2017, and 2018 years for the dates of ozone exceedances at the monitors referenced in Table LA–1 of this action. HYSPLIT back trajectory analyses use archived meteorological modeling that includes actual observed data (surface, upper air, airplane data, etc.) and modeled meteorological fields to estimate the most likely route of an air parcel transported to a receptor at a specified time. The method essentially follows a parcel of air backward in hourly steps for a specified length of time. HYSPLIT estimates the central path in both the vertical and horizontal planes. The HYSPLIT central path represents the centerline with the understanding that there are areas on each side horizontally and vertically that also contribute to the concentrations at the end point. The horizontal and vertical areas that potentially contribute to concentrations at the endpoint grow wider from the centerline the further back in time the trajectory goes. Therefore, a HYSPLIT centerline does not have to pass directly over emissions sources or emission source areas but merely relatively near emission source areas for those areas to contribute to concentrations at the trajectory endpoint. The EPA relies on back trajectory analysis as a corollary analysis along with observation-based meteorological wind fields at multiple heights to examine the general plausibility of the photochemical model ''linkages.'' Since the back trajectory calculations do not account for any air pollution formation, dispersion, transformation, or removal processes as influenced by emissions, chemistry, deposition, etc., the trajectories cannot be used to develop quantitative contributions. Therefore, back trajectories cannot be used to quantitatively evaluate the magnitude of the existing photochemical contributions from upwind states to downwind receptors. LDEQ's HYSPLIT back trajectory analysis for 2016, 2017, and 2018 showed that on high ozone days in Texas at the receptors identified by the EPA in the 2018 memorandum that 28% of the trajectories passed through Louisiana. LDEQ proffered that some of these back trajectories did not pass directly over areas with emissions but did not consider that the back trajectories only represent a centerline and there are areas on either side of the centerline that would be contributing areas. LDEQ's trajectory analysis confirmed that Louisiana is an upwind area for the receptors in Texas often enough to potentially contribute to nonattainment or interfere with maintenance. The analysis did not provide evidence that was contrary to the conclusions of the EPA's photochemical modeling analyses (*i.e.,* the EPA's modeling results in the March 2018 memorandum and EPA 2016v2 model).

Photochemical modeling simulations for ozone interstate transport assessment is relied upon by the EPA to simulate the formation and fate of oxidant precursors, primary and secondary particulate matter concentrations, and deposition over regional and urban spatial scales. Photochemical modeling is the most sophisticated tool available to estimate future ozone levels and contributions to those modeled future ozone levels. Consideration of the different processes that affect primary and secondary pollutants at the regional scale in different locations is fundamental to understanding and assessing the effects of emissions on air quality concentrations. For the 2015 ozone NAAQS interstate transport analysis, the EPA performed nationwide, state-level ozone source apportionment modeling using CAMx to quantify the contribution of NO_X and VOC emissions from all sources in each state to project 2023 ozone concentrations at ozone monitoring sites. Detailed information for the EPA's modeling may be found in the Air Quality Modeling TSD in Docket No. EPA–HQ–OAR–2021–0663.

LDEQ concluded in the SIP submittal, citing an article [72] published in 2012, that the use of 1 percent of the standard for modeled contribution as the sole definition of significant contribution is inappropriate for the 2015 ozone NAAQS. LDEQ's reasoning for this conclusion is that the more stringent 0.7 ppb threshold ''is an order of magnitude smaller than the biases and errors typically documented for regional photochemical modeling.'' First, the EPA does not use the 1 percent threshold as the sole definition of significant contribution; at Step 2 of the analysis, the 1 percent threshold is used to identify contributions between states and downwind problem areas for further analysis at Step 3. Second, photochemical transport models such as CAMx have been extensively peer reviewed and used to support SIPs and explore relationships between inputs and air quality impacts in the U.S. and beyond. The EPA works to continually develop and update both the guidelines

[72] Simon et al., *supra* FN 58.

on using modeling results and the latest versions of photochemical model platforms to support scientific assessments and regulatory determinations. Prior to using photochemical modeling to support a regulatory assessment, a model performance evaluation is completed to establish a benchmark to assess how accurately the model predicts observed concentrations and to identify model limitations. The model performance evaluation provides a better understanding of the model's limitations and biases and serves as a diagnostic evaluation for further model development and improvement. As discussed in Section I of this document and the Air Quality Modeling TSD in Docket No. EPA–HQ–OAR–2021–0663, the EPA follows the most recent established modeling guidance and provides with this action the updated modeling analysis based on the recent CAMx model update. By using the most recent 2016v2 photochemical modeling enhancements (EPA 2016v2 modeling) results are more representative of the projected local and regional air quality as it is based on more recent emission estimates with fewer years between the base case year (2016) and the future year (2023). In addition, to reduce the impact of any potential biases or errors, the EPA uses the modeling results in a relative sense rather than rely on absolute model predictions.[73]

Furthermore, it is not appropriate to compare the bias/error involved in the estimation of total ozone to the potential error in the estimation of the subset of ozone that is contributed by a single state. For example, on a specific day the modeled vs. monitored ozone value may differ by 2 ppb but that is relatively small percentage of the total modeled ozone, which for a receptor of interest would be on the order of 70 ppb. It would be unrealistic to assign all the 2 ppb, in the above example, to the estimated impact from a single state as the 2 ppb error would be the combination of the error from all sources of ozone that contribute to the total, including estimated impacts from other states, the home state of the receptor and natural background emissions.

In sum, the EPA disagrees that the estimates of potential error in the models estimates of total ozone, call into question the use of 1 percent as a threshold for linkage. As noted earlier, in the case of Louisiana, the difference between a 1 percent threshold and a 1 ppb threshold is irrelevant to the decision here because linkages are present at both threshold levels. As to Louisiana's conclusion that the impacts from Louisiana's emissions are not persistent, the contribution analysis is the average impact for at least 5 days and up to 10 days for the 2016 base period which is sufficiently persistent considering the first through fourth high monitored values set the monitored DV.

We recognize that the results of the EPA (2011 and 2016 base year) modeling indicated different receptors and linkages at Steps 1 and 2 of the 4-Step interstate transport framework. These differing results regarding receptors and linkages can be affected by the varying meteorology from year to year, but we do not think the differing results means that the modeling or the EPA or the state's methodology for identifying receptors or linkages is inherently unreliable. Rather, these separate modeling runs all indicated: (1) That there are receptors that would struggle with nonattainment or maintenance in the future; and (2) that Louisiana is linked to some set of these receptors, even if the receptors and linkages differed from one another in their specifics (*e.g.,* Louisiana was linked to a different set of receptors in one modeling run versus another). These results indicates that Louisiana's emissions were substantial enough to generate linkages at Steps 1 and 2 to at least some set of downwind receptors, under varying assumptions and meteorological conditions, even if the precise set of linkages changed between modeling runs.

4. Evaluation of Information Provided by LDEQ Regarding Step 4

Step 4 of the 4-Step interstate transport framework calls for development of permanent and federally enforceable control strategies to achieve the emissions reductions determined to be necessary at Step 3 to eliminate significant contribution to nonattainment or interference with maintenance of the NAAQS. As mentioned previously, LDEQ's SIP submission did not contain an evaluation of additional emission control opportunities (or establish that no additional controls are required), thus, no information was provided at Step 4. To the extent that LDEQ discussed emissions reductions, the State only provided a summary of existing already implemented enforceable control regulations. The EPA's 2016v2 modeling analyses have already accounted for the implementation of the regulations cited by LDEQ's submission—including the CSAPR rulemakings and prior regional rulemakings—and even with those reductions in place, the modeling results consistently show receptors that are projected to be in nonattainment or to struggle with maintenance, and Louisiana contributing to those receptors. Relying only on the existing enforceable control regulations is insufficient to address the Louisiana air emission contributions to linked downwind air quality problems. As a result, the EPA proposes to disapprove LDEQ's submittal on the separate, additional basis that the State has not developed permanent and enforceable emissions reductions necessary to meet the obligations of CAA section 110(a)(2)(D)(i)(I).

5. Conclusion

Based on the EPA's evaluation of LDEQ's SIP submission, the EPA is proposing to find that LDEQ's November 13, 2019, SIP submission pertaining to interstate transport of air pollution does not meet the State's interstate transport obligations because it fails to contain the necessary provisions to eliminate emissions that will contribute significantly to nonattainment or interfere with maintenance of the 2015 ozone NAAQS in any other state.

IV. Oklahoma SIP Submission Addressing Interstate Transport of Air Pollution for the 2015 Ozone NAAQS and the EPA Evaluation of the SIP Submission

A. Summary of ODEQ SIP Submission Addressing Interstate Transport of Air Pollution for the 2015 Ozone NAAQS

On October 25, 2018, the Oklahoma Department of Environmental Quality (ODEQ) made a SIP submission addressing interstate transport of air pollution for the 2015 ozone NAAQS. The SIP submission provided ODEQ's analysis of their impact to downwind states using the EPA's 4-Step framework and an analytic year of 2023 and concluded that emissions from Oklahoma will not contribute significantly to nonattainment or interfere with maintenance of the 2015 ozone NAAQS in other states.

To identify downwind air quality problems that are linked to emissions

[73] *See* ''Modeling Guidance for Demonstrating Air Quality Goals for Ozone, $PM_{2.5}$ and Regional Haze'', Nov. 29, 2018, at 101, available at *https://www.epa.gov/sites/default/files/2020-10/documents/o3-pm-rh-modeling_guidance-2018.pdf* (''2018 Air Quality Modeling Guidance''). *See also* ''Draft Modeling Guidance for Demonstrating Attainment of Air Quality Goals for Ozone, $PM_{2.5}$, and Regional Haze'', Dec. 3, 2014, at 97–98, available at *https://www.epa.gov/sites/default/files/2020-10/documents/draft-o3-pm-rh-modeling_guidance-2014.pdf* (''2014 Draft Air Quality Modeling Guidance'').

from Oklahoma and therefore warrant further review and analysis (Steps 1 and 2), ODEQ used EPA interstate transport modeling results found in the March 2018 memorandum. The EPA modeling results projected: (1) An average DV and a maximum DV for the year 2023 for ozone monitors in the 48 contiguous States and (2) the expected contribution from emissions in each state to the ozone concentrations at each ozone monitor.

ODEQ used the information from the March 2018 EPA memorandum to identify six downwind nonattainment and maintenance receptors [74] with a contribution from Oklahoma of 1 percent of the 2015 ozone NAAQS (0.70 parts ppb) or greater. ODEQ then applied a 1 ppb threshold to remove from further analysis three receptors with a contribution from Oklahoma of less than 1 ppb. ODEQ noted that the possibility of using an alternative contribution threshold was one of the areas of flexibility identified in the March 2018 EPA memorandum and discussed further in the August 2018 EPA memorandum. To support its alternative contribution threshold, ODEQ referenced an EPA memorandum from April 17, 2018, which recommended a Significant Impact Level (SIL) for ozone of 1.0 ppb for proposed sources subject to the Prevention of Significant Deterioration (PSD) permitting program.[75] Table OK–1 provides information on the six nonattainment and maintenance receptors identified by ODEQ, including the three receptors ODEQ identified for further analysis.

TABLE OK–1—NONATTAINMENT AND MAINTENANCE RECEPTORS IDENTIFIED BY ODEQ BASED ON THE EPA'S MARCH 2018 MEMORANDUM

Receptor (site ID, county, state)	2023 average DV (ppb)	2023 maximum DV (ppb)	Oklahoma contribution (ppb)	ODEQ's step 1 and 2 determination
260050003, Allegan, MI	69.0	71.7	1.31	Maintenance receptor identified for further analysis.
481210034, Denton, TX	69.7	72.0	1.23	Maintenance receptor identified for further analysis.
484392003, Tarrant, TX	72.5	74.8	1.71	Nonattainment receptor identified for further analysis.
480391004, Brazoria, TX	74.0	74.9	0.90	Nonattainment receptor with contribution less than 1 ppb; no further analysis.
550790085, Milwaukee, WI	71.2	73.0	0.76	Nonattainment receptor with contribution less than 1 ppb; no further analysis.
551170006, Sheboygan, WI	72.8	75.1	0.95	Nonattainment receptor with contribution less than 1 ppb; no further analysis.

ODEQ further evaluated the two Texas receptors (Tarrant County and Denton County) and the receptor in Allegan County, MI. ODEQ did not further evaluate the contribution from Oklahoma to the receptors in Brazoria County, TX, Milwaukee County, WI, and Sheboygan County, WI because the contributions from Oklahoma to these receptors were less than 1 ppb.

For the two remaining Texas receptors, ODEQ returned to Steps 1 and 2 of the 4-Step interstate transport framework using modeling performed by the Texas Commission on Environmental Quality (TCEQ). The TCEQ modeling results are included in the Regional docket for this action (Docket ID No. EPA–R06–OAR–2021–0801). ODEQ stated that the primary difference between the EPA modeling and the TCEQ modeling is that the TCEQ modeling used 2012 as the ''base year'' for assessing interstate transport of ozone pollution in 2023 whereas the EPA modeling used 2011 as the base year for that assessment. In addition, the ODEQ stated that TCEQ used a method different from the EPA's method to identify whether a monitor would have trouble maintaining the 2015 ozone NAAQS (*i.e.,* a maintenance receptor). To identify maintenance receptors, TCEQ calculated a ''maintenance future year (fy) DV'' by projecting to 2023 the most recent regulatory DV that contains the base year (*i.e.,* the 2012–2014 DV for a base year of 2012), whereas the EPA's methodology for identifying maintenance receptors uses the maximum DV, which is the highest monitored DV from among the three DVs that contain the base year (*i.e.,* the 2009–2011, 2010–2012 and 2011–2013 DVs for a base year of 2011).

To assess whether Oklahoma is linked to nonattainment of the 2015 ozone standard at the Denton and Tarrant County sites, ODEQ switched to using the 2023 average DV projected by TCEQ rather than the EPA's projected average DVs. The ODEQ noted that the projected 2023 average DV was 68 ppb for the Denton County site and 66 ppb for the Tarrant County site based on the TCEQ modeling. ODEQ then claimed that these results demonstrate that both of these sites are in attainment in 2023.

To assess whether Oklahoma interferes with maintenance of the 2015 ozone standard at these two sites, ODEQ used (1) the Texas method to calculate a ''maintenance future year DV'' for 2023 and (2) a maximum DV calculated using the highest of the three base year DVs multiplied by a relative response factor derived from TCEQ's modeling (*i.e.,* EPA's method for identifying maintenance receptors but using TCEQ's modeling rather than EPA's modeling). This assessment is summarized in Table OK–2.

[74] Nonattainment receptors are monitoring sites that are anticipated to have problems attaining and maintaining the 2015 ozone NAAQS (*i.e.,* average projected 2023 DV greater than 70.9 ppb). Maintenance receptors are monitoring sites that are anticipated to have problems maintaining the 2015 ozone NAAQS (*i.e.,* maximum projected 2023 DV greater than 70.9 ppb).

[75] *See* FN 32.

TABLE OK–2—SUMMARY OF TCEQ MODELING (2012 BASE PERIOD) USED BY ODEQ TO ASSESS MAINTENANCE RECEPTORS

Receptor (site ID, county, state)	2023 average DV (ppb)	2023 maximum DV (ppb) (EPA method)*	Maintenance DV (ppb)(TCEQ method)	ODEQ's step 1 and step 2 determination
481210034 Denton, TX	68	70.7	65.9	Future DVs project no attainment or maintenance problems.
484392003 Tarrant, TX	66	69.9	62.4	Future DVs project no attainment or maintenance problems.

*These values are not based on calculations made by the EPA. ODEQ calculated these values by using the maximum DV for the 2010–2014 5-year period (*i.e.,* the highest of the DVs in 2012, 2013, and 2014) multiplied by relative response factor for the receptor obtained from TCEQ's modeling.

ODEQ noted in their assessment that based on the TCEQ modeling and TCEQ definition of maintenance receptor, it is expected that the Denton and Tarrant sites will not experience nonattainment or maintenance problems in 2023. Because ODEQ claimed that the Denton and Tarrant County sites will not be nonattainment or maintenance receptors in 2023, ODEQ did not analyze potential emissions reductions at Step 3 to address its contribution to these two sites.

With respect to the remaining receptor at Allegan County, MI, ODEQ provided an analysis of projected 2023 DVs for this site and information on emissions trends in Oklahoma to assert that emissions from Oklahoma do not significantly contribute to nonattainment or interfere with maintenance of the 2015 ozone NAAQS at the Allegan County, MI site.

ODEQ noted that (1) the DV for the Allegan County, MI site has had a substantial reduction in the last 6 years from 84 ppb in 2012 to 73 ppb in 2017, a 1.8 ppb per year decrease, on average and (2) the Allegan County, MI site is substantially influenced by mobile sources from the Chicago area and these emissions are expected to be greatly reduced in the near future, by roughly a 1 ppb per year decrease, leading to attainment of the 2015 ozone standard. The ODEQ then calculated a projected 2023 maintenance DV for the Allegan County, MI site using the EPA's method, but assuming that the base year was 2016 rather than 2011, as in the EPA's modeling or 2012 as in the TCEQ modeling. The ODEQ noted that the maximum DV in the 2016-centered base period (*i.e.,* 2014–2016, 2015–2017, and 2016–2018) was 75 ppb at the Allegan County, Michigan site. The ODEQ then calculated the difference between the 2011-centered base period maximum DV of 86 ppb and the 2023 projected maximum DV of 71.7 ppb, using data from the EPA's modeling. The ODEQ calculated a ''ppb per year'' reduction of 1.1917 ppb per year, based on the 14.3 ppb difference between the 2011-centered and 2023 maximum DVs over the 12 years from 2011 to 2023. Finally, ODEQ applied the 1.1917 ppb per year value to the 2016-centered maximum DV of 75 ppb to estimate a 2023 maximum DV of 66.66 ppb.

ODEQ also asserted that the relatively small contribution from Oklahoma (3% of total upwind state contributions) combined with the distance between Oklahoma sources and the Allegan County, Michigan site, warrants a focus on nearby states with greater proportional contributions as the most prudent approach to addressing interstate transport of ozone precursors for this receptor.

The ODEQ also provided the anthropogenic NO_X and VOC data of Oklahoma's emissions from EPA's emission trends and modeling to demonstrate an anticipated substantial reduction of NO_X and VOC from 2011 to 2023: (1) Reductions of NO_X from 405,000 to 235,000 tons per year and (2) reductions of VOC from 414,000 to 295,000 tons per year.[76] ODEQ noted these reductions should result in considerable reductions in ozone concentrations. The ODEQ stated that due to the emissions reductions required by rules like CSAPR, the 2016 CSAPR Update, and the regional haze requirements, the NO_X emissions from electric generation in Oklahoma have dropped significantly during the ozone season from 38,285 tons per year in 2011 to 10,435 tons per year in 2017. ODEQ also stated that changes in the Southwest Power Pool[77], building of additional windfarms, and electric utilities installing solar generation facilities have led to Oklahoma NO_X emissions reductions; and that any additional NO_X reductions from the electric generation section would require more costly emissions controls. ODEQ concluded that the existing controls in Oklahoma have resulted in significant decreases in ozone DVs in Oklahoma and that additional controls would not be cost-effective. Given their conclusions, ODEQ did not adopt additional controls to reduce ozone precursor emissions (Step 4).

B. EPA Evaluation of the ODEQ SIP Submission

The EPA is proposing to find that ODEQ's October 25, 2018, SIP submission does not demonstrate that the State's obligations with respect to prohibiting emissions that contribute significantly to nonattainment or interfere with maintenance of the 2015 ozone NAAQS in any other state based on the EPA's evaluation of the SIP submission using the 4-Step interstate transport framework have been met. The EPA is therefore proposing to disapprove ODEQ's submission.

1. Evaluation of Information Provided by ODEQ Regarding Steps 1 and 2

As noted earlier, ODEQ first used the information from the EPA's March 2018 memorandum to identify nonattainment and maintenance receptors with a contribution from Oklahoma of 0.70 ppb or greater (*i.e.,* ODEQ identified receptors that would be deemed nonattainment and maintenance receptors under the EPA's methodology for Steps 1 and 2). ODEQ then utilized a 1 ppb threshold and elected not to further analyze any receptors to which it did not contribute greater than 1 ppb.

[76] ODEQ used the EPA's emissions data shared alongside the October 2018 memorandum, ''state-sector_annual_emissions_data_1.xlsx'' available at *https://www.epa.gov/airmarkets/memo-and-supplemental-information-regarding-interstate-transport-sips-2015-ozone-naaqs.*

[77] The Southwest Power Pool is a regional electric transmission organization regulated by the Federal Energy Regulatory Commission whose purpose is promoting efficiency and reliability in the operation and planning of the electric transmission grid and ensuring non-discrimination in the provision of electric transmission services. It manages electric transmission in portions of fourteen states: Arkansas, Iowa, Kansas, Louisiana, Minnesota, Missouri, Montana, Nebraska, New Mexico, North Dakota, Oklahoma, South Dakota, Texas and Wyoming. *See* 18 CFR 35.34 and *https://www.ferc.gov/electric-power-markets.*

ODEQ provided further evaluation of the State's emissions to those receptors to which Oklahoma contributes greater than 1 ppb (*i.e.,* Allegan County, MI, Denton County, TX and Tarrant County, TX).

As discussed in the EPA's August 2018 memorandum, with appropriate additional analysis it may be reasonable for states to use a 1 ppb contribution threshold, as an alternative to a 1 percent threshold, at Step 2 of the 4-Step interstate transport framework, for the purposes of identifying linkages to downwind receptors. However, the EPA's August 2018 memorandum provided that whether or not a 1 ppb threshold is appropriate must be based on an evaluation of state-specific circumstances, and no such evaluation was included in the ODEQ's submittal. Instead, ODEQ's SIP submission justified the State's use of a 1 ppb threshold based on the threshold's use in the SILs Guidance.[78] ODEQ did not explain the relevance of the SILs Guidance to Oklahoma's statutory obligation under the interstate transport provision. The SILs Guidance relates to a different provision of the CAA regarding implementation of the prevention of significant deterioration (PSD) permitting program, *i.e.,* a program that applies in areas that have been designated attainment of the NAAQS, and it is not applicable to the interstate transport provision, which requires states to eliminate emissions that contribute significantly or interfere with maintenance of the NAAQS at known, ongoing, or projected air quality problem areas in other states. The EPA does not, in this action, agree that the State has justified its application of the 1 ppb threshold.

Additionally, the EPA here shares further evaluation of its experience since the issuance of the August 2018 memorandum regarding use of alternative thresholds at Step 2. This experience leads the Agency to now believe it may not be appropriate to continue to attempt to recognize alternative contribution thresholds at Step 2. The August 2018 memorandum stated that ''it may be reasonable and appropriate'' for states to rely on an alternative threshold of 1 ppb threshold at Step 2. (The memorandum also indicated that any higher alternative threshold, such as 2 ppb, would likely not be appropriate.) However, the EPA also provided that ''air agencies should consider whether the recommendations in this guidance are appropriate for each situation.'' Following receipt and review of 49 interstate transport SIP submittals for the 2015 ozone NAAQS, the EPA's experience has been that nearly every state that attempted to rely on a 1 ppb threshold did not provide sufficient information and analysis to support a determination that an alternative threshold was reasonable or appropriate for that state.

For instance, in nearly all submittals, the states did not provide the EPA with analysis specific to their state or the receptors to which its emissions are potentially linked. In one case, the proposed approval of Iowa's SIP submittal, the EPA expended its own resources to attempt to supplement the information submitted by the state, in order to more thoroughly evaluate the state-specific circumstances that could support approval. [79] It was at the EPA's sole discretion to perform this analysis in support of the state's submittal, and the Agency is not obligated to conduct supplemental analysis to fill the gaps whenever it believes a state's analysis is insufficient. The Agency no longer intends to undertake supplemental analysis of SIP submittals with respect to alternative thresholds at Step 2 for purposes of the 2015 ozone NAAQS.

Furthermore, the EPA's experience since 2018 is that allowing for alternative Step 2 thresholds may be impractical or otherwise inadvisable for a number of additional policy reasons. For a regional air pollutant such as ozone, consistency in requirements and expectations across all states is essential. Based on its review of submittals to-date and after further consideration of the policy implications of attempting to recognize an alternative Step 2 threshold for certain states, the Agency now believes the attempted use of different thresholds at Step 2 with respect to the 2015 ozone NAAQS raises substantial policy consistency and practical implementation concerns.[80] The availability of different thresholds at Step 2 has the potential to result in inconsistent application of interstate transport obligations based solely on the strength of a state's SIP submittal at Step 2 of the 4-Step interstate transport framework. From the perspective of ensuring effective regional implementation of interstate transport obligations, the more important analysis is the evaluation of the emissions reductions needed, if any, to address a state's significant contribution after consideration of a multifactor analysis at Step 3, including a detailed evaluation that considers air quality factors and cost. Where alternative thresholds for purposes of Step 2 may be ''similar'' in terms of capturing the relative amount of upwind contribution (as described in the August 2018 memorandum), nonetheless, use of an alternative threshold would allow certain states to avoid further evaluation of potential emission controls while other states must proceed to a Step 3 analysis. This can create significant equity and consistency problems among states.

Further, it is not clear that national ozone transport policy is best served by allowing for less stringent thresholds at Step 2. The EPA recognized in the August 2018 memorandum that there was some similarity in the amount of total upwind contribution captured (on a nationwide basis) between 1 percent and 1 ppb. However, the EPA notes that while this may be true in some sense, that is hardly a compelling basis to move to a 1 ppb threshold. Indeed, the 1 ppb threshold has the disadvantage of losing a certain amount of total upwind contribution for further evaluation at Step 3 (*e.g.,* roughly seven percent of total upwind state contribution was lost according to the modeling underlying the August 2018 memorandum; [81] in EPA 2016v2 modeling, the amount lost is five percent). Considering the core statutory objective of ensuring elimination of all significant contribution to nonattainment or interference of the NAAQS in other states and the broad, regional nature of the collective contribution problem with respect to ozone, there does not appear to be a compelling policy imperative in allowing some states to use a 1 ppb threshold while others rely on a 1 percent of NAAQS threshold.

Consistency with past interstate transport actions such as CSAPR, and the CSAPR Update and Revised CSAPR Update rulemakings (which used a Step 2 threshold of 1 percent of the NAAQS for two less stringent ozone NAAQS), is also important. Continuing to use a 1 percent of NAAQS approach ensures that as the NAAQS are revised and made more stringent, an appropriate increase in stringency at Step 2 occurs, so as to ensure an appropriately larger amount of total upwind-state contribution is captured for purposes of

[78] *See* FN 32.

[79] ''Air Plan Approval; Iowa; Infrastructure State Implementation Plan Requirements for the 2015 Ozone National Ambient Air Quality Standard'', 85 FR 12232 (March 2, 2020). The agency received adverse comments on this proposed approval and has not taken final action with respect to this proposal.

[80] We note that Congress has placed on the EPA a general obligation to ensure the requirements of the CAA are implemented consistently across states and regions. *See* CAA section 301(a)(2). Where the management and regulation of interstate pollution levels spanning many states is at stake, consistency in application of CAA requirements is paramount.

[81] *See* August 2018 memorandum, at page 4.

fully addressing interstate transport. *Accord* 76 FR 48237–38.

Therefore, notwithstanding the August 2018 memorandum's recognition of the potential viability of alternative Step 2 thresholds, and in particular, a potentially applicable 1 ppb threshold, the EPA's experience since the issuance of that memorandum has revealed substantial programmatic and policy difficulties in attempting to implement this approach. Nonetheless, the EPA is not, at this time, rescinding the August 2018 memorandum. The basis for the EPA's proposed disapproval of ADEQ's SIP submission with respect to the Step 2 analysis is, in the Agency's view, warranted even under the terms of the August 2018 memorandum. The EPA invites comment on this broader discussion of issues associated with alternative thresholds at Step 2. (See Supplementary Information section above for details and docket to submit comments). Depending on public comments received in relation to this action and further evaluation of this issue, the EPA may determine to rescind the 2018 memorandum in the future.

In any case, as discussed in the following subsection, based on the EPA's most recent modeling, the State is projected to contribute greater than both the one percent and alternative 1 ppb thresholds at the Denton County, TX receptor, (Monitor ID. 481210034). Based on the EPA's modeling results included in the March 2018 memorandum, Oklahoma was also projected to contribute 1.23 ppb to the Denton County, TX receptor. (In the EPA 2016v2 modeling the Allegan County, MI and Tarrant County, TX receptors are not projected to have problems attaining or maintaining the 2015 ozone NAAQS). Even under ODEQ's own analysis, the State was linked to receptors with contributions exceeding 1 ppb. Therefore, based on Oklahoma's linkages greater than 1 ppb to projected downwind nonattainment or maintenance receptors, the State's use of this alternative threshold at Step 2 of the 4-Step interstate framework is inconsequential to our proposed action on the state's SIP.

In the remainder of this section, EPA evaluates ODEQ's conclusions that emissions from Oklahoma do not contribute to nonattainment or interfere with maintenance at receptors in Tarrant County, TX (Monitor ID. 484392003) and Denton County, TX (Monitor ID. 481210034). We evaluate ODEQ's conclusions as to the Allegan, MI (Monitor ID. 260050003) in Section IV.B.3 of this action.

With regard to the Denton County and Tarrant County, TX receptors cited in ODEQ's submission, ODEQ chose to rely on the TCEQ's modeling and methodology, instead of the EPA modeling, and trends in ozone DVs and emissions to conclude that these monitoring sites will be in attainment by 2023 and will not have a problem maintaining the 2015 ozone NAAQS. As noted in Section IV.A of this action, ODEQ used modeling results from the TCEQ along with the TCEQ alternative method for identifying maintenance receptors to claim that using the TCEQ modeling and methods, the Denton County and Tarrant County monitors would not have a problem maintaining the NAAQS in 2023. The ODEQ supplemented that analysis by citing the downward trend in NO_X and VOC emissions in Oklahoma. ODEQ also provided TCEQ modeling and emissions data for the Dallas-Fort Worth nonattainment area to show that mobile sources represent the largest emissions category in this area and that emissions from this sector have declined since 2005 and are expected to continue to decline in the future. As described in Table OK–2, ODEQ (1) provided the average 2023 DV for the Denton County, TX receptor from the TCEQ modeling and (2) used TCEQ modeling data with a 2012 base year to calculate a 2023 maintenance DV of 65.9 ppb (using the TCEQ methodology for identifying maintenance receptors) and a 2023 maximum DV of 70.7 ppb (using the EPA methodology for identifying maintenance receptors, combined with TCEQ's modeling results). ODEQ relied on this information, which is based on TCEQ modeling with a 2012 base year, to conclude that the Denton County, TX and Tarrant County, TX monitors would not have problems attaining and maintaining the 2015 ozone NAAQS.

ODEQ's SIP submission (or TCEQ, to the extent that Oklahoma is merely incorporating and relying on Texas' submission) does not adequately explain or justify how relying on TCEQ's method for identifying maintenance receptors reasonably identifies areas that will have difficulty maintaining the NAAQS. EPA proposes to find that ODEQ has provided no sound technical basis (either on its own or through reliance on Texas) for how its chosen methodology gives meaning to the CAA's instruction that states submit interstate transport SIPs that prohibit their states' emissions from interfering with the maintenance of the NAAQS in another state.

In *North Carolina* v. *EPA,* 531 F.3d 896, 909–11 (D.C. Cir. 2008), the D.C. Circuit rejected the EPA's CAIR on the basis that the EPA had not adequately given meaning to the phrase ''interfere with maintenance'' in the interstate transport provision. Specifically, North Carolina argued that it had counties that were projected to attain the NAAQS in the future analytic year, but were at risk of falling back into nonattainment due to interference from upwind sources, particularly given year-to-year variability in ozone levels. The court agreed, holding that the EPA's rule did not adequately protect ''[a]reas that find themselves barely meeting attainment.'' *Id.* at 910. Consequently, the EPA has developed a methodology, used in its 2011 CSAPR and its 2016 CSAPR Update and Revised CSAPR Update, for identifying areas that may struggle to maintain the NAAQS. *See* 76 FR at 48227–28. EPA's approach to addressing maintenance receptors was upheld in the *EME Homer City* litigation. *See* 795 F.3d 118, 136–37. It was also upheld in *Wisconsin.* 938 F.3d at 325–26. In *Wisconsin,* the court noted that four upwind states were linked only to maintenance receptors and rejected the argument that application of the same control level as EPA imposes for those states linked to nonattainment receptors was unreasonable or unlawful absent a particularized showing of overcontrol. *Id.* at 327.

In order to explain the differences between TCEQ's and the EPA's methodology for identifying maintenance receptors, it is helpful to provide some additional context of how the EPA projects future air quality.

The EPA's air quality modeling guidance has long recommended developing a base DV (*i.e.,* the DV that will be used as a starting point to model and analyze for purposes of projecting future air quality concentrations) that is the average of three DVs spanning a five-year period, centered around one year for which an emissions inventory will be submitted (*e.g.,* if 2011 was the base emissions inventory year, a state would use monitored values from 2009–2011, 2010–2012, 2011–2013 as the starting point for projecting air quality concentrations in future years).[82] The average of these three DVs is then multiplied by a relative response factor[83] to generate an average DV for the future year.[84] If a receptor's average

[82] *See* FN 73.

[83] *See* FN 53.

[84] While it is not critical to this discussion, for purposes of explanation, the relative response factor is a fractional change that represents how ozone at a given receptor responds to changes in emissions when all other variables are constant. For more explanation of the RRF, please see 2018 Air Quality Modeling Guidance or 2014 Draft Air Quality Modeling Guidance.

future year DV is greater than or equal to the level of the NAAQS, and the receptor has recent monitored data that violates the NAAQS, that receptor is considered a ''nonattainment'' receptor at Step 1. To identify maintenance receptors, the EPA's methodology looks to the highest DV of the three DVs used to calculate the 5-year weighted average DV (*e.g.,* in the 2011 example, if 2009–2011 had the highest DV of 2009–2011, 2010–2012, and 2011–2013). The EPA then applies the same relative response factor to that highest DV to generate a projected future maximum DV. Where a receptor's maximum DV exceeds the level of the NAAQS, the EPA has deemed those receptors to be ''maintenance'' receptors. This methodology was designed to address the D.C. Circuit's holding that the CAA's ''interference with maintenance'' prong requires states and the EPA to protect areas that may struggle with maintaining the standard in the face of variable conditions.

In its modeling, TCEQ adopted an identical approach to the EPA's for identifying nonattainment receptors—it looked at three sets of DVs over a five-year period and averaged those DVs to generate a base year DV. TCEQ then applied a relative response factor to that base year DV to project a receptor's average DV in the future year. For maintenance receptors, however, TCEQ elected not to examine variability in DVs over a five-year period by using the highest DV of the three DVs making up the base year DV. Instead, TCEQ (and by extension, ODEQ), used only the most recent DV of the three DVs, regardless of whether the most recent DV was highest or lowest. TCEQ's proffered explanation for using the most recent DV to identify maintenance receptors was that the latest DV ''takes into consideration . . . any emissions reductions that might have occurred.'' [85] TCEQ in its submission does not explain why or how this methodology identifies those areas that may be meeting the NAAQS or that may be projected to meet the NAAQS but may nevertheless struggle to maintain the NAAQS, given meteorological variability. In fact, because TCEQ's stated purpose in using the most recent DV was to capture more recent emissions reductions, Texas' methodology appears to be aimed at *limiting* receptors which could be identified as maintenance receptors, compared to the EPA's methodology, which was designed to identify those areas that might struggle to maintain the NAAQS in particularly ozone conducive conditions.

As discussed further in the EPA Region 6 TSD [86] for this action, the EPA has reviewed the set of 21 receptors for which Texas had contributions of 0.7 ppb or more in the EPA's 2016 base year modeling analyses, or TCEQ's modeling (2012 base year), and evaluated the results of using TCEQ's alternate maintenance methodology. For these 21 receptors, TCEQ's method resulted in 15 of the 21 2023 maintenance DVs predicted to be lower than the 2023 nonattainment DVs from the nonattainment methodology that uses the 5-year center weighted average. Of these 15 receptors, three receptors have 2023 maintenance DVs that are 3 ppb lower, five receptors have 2023 maintenance DVs that are 2 ppb lower, and seven receptors have 2023 maintenance DVs that are 1 ppb lower. In comparison, using the EPA's maintenance methodology results in all 21 2023 maintenance DVs being equal or up to 4 ppb higher than the 2023 nonattainment DVs. Again, the EPA uses the average of the three DVs that contain the base year modeled for the nonattainment methodology and the maximum of these three DVs for the maintenance methodology. Because TCEQ's maintenance methodology of just using the most recent DV (2012–2014 DV) often results in maintenance DVs lower than the 2023 nonattainment DVs methodology results, the EPA finds that the TCEQ methodology is not adequately identifying conditions when a receptor would have more difficulty maintaining the standard. In fact, the TCEQ's method also identified one receptor in their SIP submission as a nonattainment receptor in 2023 that would not have been identified as a maintenance receptor, which further highlights the concern that TCEQ's method did not adequately identify areas that may struggle to maintain the standard. TCEQ did not address whether the three years that comprise the most recent design value (*i.e.,* 2012, 2013, and 2014) had meteorological conditions highly conducive for formation of high ozone concentrations and thus would be an appropriate time period to assess whether area could have difficulty maintaining the standard and the EPA's analysis confirms that this time period is not highly conducive to ozone formation, at least for many receptors. The consequence of TCEQ's maintenance method is that it often results in lower DVs than the nonattainment method as demonstrated by our analysis, which indicates that it is often not considering conditions when an area would have difficulty maintaining the standard. Further, it is unreasonable to have a method that would not identify nonattainment receptors also as maintenance receptors.

Again, EPA also assessed a number of monitored DV trends that were provided in TCEQ's SIP and previous TCEQ attainment demonstration SIPs indicating that there are at times large annual fluctuations upward from year to year in monitored DVs (sometimes 2–3 ppb increase in one year) that are due to variations in meteorology. Neither TCEQ nor ODEQ addressed in their SIP submissions whether the three years that comprise the most recent DV (*i.e.,* 2012, 2013, and 2014) had meteorological conditions conducive for formation of high ozone concentrations. On the other hand, the EPA methodology can identify variations in ozone levels that might result in difficulty in maintaining the standard over a longer period of time. The TCEQ method will only identify areas that have difficulty maintaining the standard for a single design value period and, as a result, does not address the meteorological variability issue sufficiently.

In its SIP submittal, ODEQ contended that, based on TCEQ's use of a 2012 base year, and using TCEQ's air quality modeling, even if Texas had used the EPA's method of identifying maintenance receptors, the projected maximum DV for the Denton County and Tarrant County receptors would be 70.7 ppb and 69.9 ppb, respectively, which are considered to be in attainment of the 2015 ozone NAAQS in 2023. However, this conclusion relied upon a relative response factor derived from the TCEQ modeling and TCEQ's modeling results, which are discussed in more detail in Section V of this action and in the EPA Region 6 TSD.[87] TCEQ's modeled projections for 2023 including nonattainment and maintenance values (using either TCEQ' or EPA's methodology) are much lower than recent monitored values (2018–2020 DV and preliminary 2019–2021 DVs) [88] for

[85] TCEQ submission at 3–39 to 3–40, available in the Regional docket for this action (Docket ID No. EPA–R06–OAR–2021–0801).

[86] ''EPA Region 6 2015 8-Hour Ozone Transport SIP Proposal Technical Support Document'' (EPA Region 6 2015 Ozone Transport SIP TSD.pdf) included in Docket ID No. EPA–R06–OAR–2021–0801.

[87] *Id.*

[88] Monitoring data from the EPA's Air Quality System (AQS) (*https://www.epa.gov/aqs*). 2021 monitoring data is preliminary and still has to undergo Quality Assurance/Quality Control analysis and be certified by the State of Texas, submitted to EPA, and reviewed and concurred on by EPA. 2018–2020 DVs are 72 ppb and 73 ppb at

Continued

many monitors and the amount of further DV reductions needed to match TCEQ's modeling is more than is reasonably expected to occur for many monitors/receptors. This underestimation of future DVs results in mis-identifying these two receptors and other receptors as not being nonattainment or maintenance receptors. Specifically, these two receptors would need to have at least a 3–4 ppb decrease in the next 2–3 years just to attain the 2015 Ozone NAAQS in 2023. As discussed in the EPA Region 6 TSD, TCEQ's previous DFW Attainment Demonstration SIP includes long-term DV trends analysis that indicates that DFW DVs decrease approximately 1 ppb per year.[89] Moreover, as discussed in Section IV.B.2 of this action, the EPA's updated modeling, which relies upon more recent data and the latest information on emissions reductions, indicates that the maximum design value in 2023 for the Denton County receptor is 72.2 ppb. Recent monitored air quality data at the Denton receptor are consistent with the EPA's projections that this is an area that will struggle to maintain the 2015 ozone NAAQS in 2023; the 2020 DV for Denton was 72 ppb.[90]

Finally, in its submittal, ODEQ pointed to the significant reductions in emissions that have occurred in the State, but the EPA believes these reductions have already been accounted for in the most recent modeling; therefore, even with these reductions, the Denton County, TX receptor is projected to struggle with maintenance of the 2015 ozone NAAQS in 2023.

2. Results of the EPA's Step 1 and Step 2 Modeling and Findings for Oklahoma

As described in Section I of this action, the EPA performed air quality modeling using the 2016v2 platform to project DVs and contributions for 2023. This data was examined to determine if Oklahoma contributes at or above the threshold of 1 percent of the 2015 ozone NAAQS (0.70 ppb) to any downwind nonattainment or maintenance receptor. As shown in Table OK–3, the most recent modeling data[91] indicate that in 2023, emissions from Oklahoma contribute greater than one percent of the standard to maintenance-only receptors in Denton County, TX and in Cook County, IL. Oklahoma is not linked to any nonattainment receptors in EPA's most recent modeling (EPA 2016v2 modeling). Therefore, based on the EPA's evaluation of the information submitted by ODEQ and based on the EPA's most recent modeling results for 2023, the EPA proposes to find that Oklahoma is linked at Steps 1 and 2 and has an obligation to assess potential emissions reductions from sources or other emissions activity at Step 3 of the 4-Step framework.

TABLE OK–3—PROJECTED NONATTAINMENT AND MAINTENANCE RECEPTORS WITH OKLAHOMA LINKAGES IN 2023 BASED ON EPA 2016V2 MODELING

Receptor (site ID, county, state)	Nonattainment/maintenance	2020 DV	2023 average DV (ppb)	2023 maximum DV (ppb)	Oklahoma contribution (ppb)
481210034, Denton, TX	Maintenance	72	70.4	72.2	1.19
170310032, Cook, IL	Maintenance	74	69.8	72.4	0.75

3. Evaluation of Information Provided by ODEQ Regarding Step 3

At Step 3 of the 4-Step interstate transport framework, a state's emissions are further evaluated, in light of multiple factors, including air quality and cost considerations, to determine what, if any, emissions contribute significantly to nonattainment or interfere with maintenance and, thus, must be eliminated under CAA section 110(a)(2)(D)(i)(I).

To effectively evaluate which emissions in the state should be deemed ''significant'' and therefore prohibited, states generally should prepare an accounting of sources and other emissions activity for relevant pollutants and assess potential, additional emissions reduction opportunities and resulting downwind air quality improvements. The EPA has consistently applied this general approach (*i.e.,* Step 3 of the 4-Step interstate transport framework) when identifying emissions contributions that the Agency has determined to be ''significant'' (or interfere with maintenance) in each of its prior Federal, regional ozone transport rulemakings, and this interpretation of the statute has been upheld by the Supreme Court. *See EME Homer City,* 572 U.S. at 519. While the EPA has not directed states that they must conduct a Step 3 analysis in precisely the manner the EPA has done in its prior regional transport rulemakings, state implementation plans addressing the obligations in CAA section 110(a)(2)(D)(i)(I) must prohibit ''any source or other type of emissions activity within the State'' from emitting air pollutants which will contribute significantly to downwind air quality problems. Thus, states must complete something similar to the EPA's analysis (or an alternative approach to defining ''significance'' that comports with the statute's objectives) to determine whether and to what degree emissions from a state should be ''prohibited'' to eliminate emissions that will ''contribute significantly to nonattainment in, or interfere with maintenance of'' the NAAQS in any other state. ODEQ did not conduct such an analysis in their SIP submission.

As noted earlier, ODEQ provided some data on emissions and already implemented emissions reductions for sources in Oklahoma and stated that the 2016 CSAPR Update is the only reasonable control warranted based on Oklahoma's limited contributions to the Michigan and Texas receptors. Thus, Oklahoma relied on its EGUs being subject to the CSAPR Update (which reflected a stringency at the nominal marginal cost threshold of $1400/ton (2011$) for the 2008 ozone NAAQS) to argue that it had already implemented all cost-effective emissions reductions, and had no additional statutory

the Denton County and Tarrant County monitors/receptors respectively. Preliminary 2019–2021 DVs are 74 ppb and 72 ppb at the Denton County and Tarrant County monitors/receptors respectively.

[89] EPA also analyzed trends using AQS data, See EPA Region 6 TSD.

[90] DVs and contributions at individual monitoring sites nationwide are provide in the file: ''2016v2_DVs_state_contributions.xlsx'' which is included in Docket ID No. EPA–HQ–OAR–2021–0663.

[91] These modeling results are consistent with the results of a prior round of 2023 modeling using the 2016v1 emissions platform which became available to the public in the fall of 2020 in the Revised CSAPR Update, as noted above. That modeling showed that Oklahoma had a maximum contribution greater than 0.70 ppb to at least one nonattainment or maintenance-only receptor in 2023. These modeling results are included in ''Ozone DVs And Contributions Revised CSAPR Update.xlsx'' in Docket ID No. EPA–HQ–OAR–2021–0663.

obligation to prohibit emissions under CAA section 110(a)(2)(D)(i)(I) with respect to the 2015 ozone NAAQS.

The EPA disagrees with ODEQ's conclusions for the following reasons: First, the CSAPR Update did not regulate non-electric generating units, and thus this analysis is incomplete. *See Wisconsin,* 938 F.3d at 318–20. Second, relying on the CSAPR Update's (or any other CAA program's) determination of cost-effectiveness without further Step 3 analysis is not approvable. Cost-effectiveness must be assessed in the context of the specific CAA program; assessing cost-effectiveness in the context of ozone transport should reflect a more comprehensive evaluation of the nature of the interstate transport problem, the total emissions reductions available at several cost thresholds, and the air quality impacts of the reductions at downwind receptors. While the EPA has not established a benchmark cost-effectiveness value for 2015 ozone NAAQS interstate transport obligations, because the 2015 ozone NAAQS is a more stringent and more protective air quality standard, it is reasonable to expect control measures or strategies to address interstate transport under this NAAQS to reflect higher marginal control costs. As such, the marginal cost threshold of $1,400/ton for the CSAPR Update (which addresses the 2008 ozone NAAQS and is in 2011$) is not an appropriate cost threshold and cannot be approved as a benchmark to use for interstate transport SIP submissions for the 2015 ozone NAAQS.

In addition, the most recent EPA modeling captures all existing CSAPR trading programs in the baseline, and that modeling confirms that these control programs were not sufficient to eliminate Oklahoma's linkage at Steps 1 and 2 under the 2015 ozone NAAQS. The State was therefore obligated at Step 3 to assess *additional* control measures using a multifactor analysis.

Finally, relying on a FIP at Step 3 is per se not approvable if the state has not adopted that program into its SIP and instead continues to rely on the FIP. States may not rely on FIP measures to meet SIP requirements. *See* CAA section 110(a)(2)(D) (''Each such [SIP] shall . . . contain adequate provisions . . . .''). *See also* CAA section 110(a)(2)(A); *Committee for a Better Arvin* v. *U.S. E.P.A.,* 786 F.3d 1169, 1175–76 (9th Cir. 2015) (holding that measures relied on by state to meet CAA requirements must be included in the SIP).

In addition, ODEQ's submission included a weight of evidence evaluation of its contribution to the Allegan County, MI receptor to conclude that it does not contribute significantly to nonattainment or maintenance at the receptor.

The EPA disagrees with respect to ODEQ's assertion regarding the relatively small contribution of emissions from Oklahoma to the Allegan County, MI receptor compared to emissions from other upwind states such as Illinois. Whether emissions from other states or countries also contribute to the same downwind air quality issue is irrelevant in assessing whether a downwind state has an air quality problem, or whether an upwind state is contributing significantly to that problem. States are not obligated under CAA section 110(a)(2)(D)(i)(I) to reduce emissions sufficient on their own to resolve downwind receptors' nonattainment or maintenance problems. Rather, states are obligated to eliminate their own significant contribution or interference with the ability of other states to attain or maintain the NAAQS.

Further, the court in *Wisconsin* explained that downwind jurisdictions often may need to heavily rely on emissions reductions from upwind states in order to achieve attainment of the NAAQS, 938 F.3d at 316–17; such states would face increased regulatory burdens including the risk of bumping up to a higher nonattainment classification if attainment is not reached by the relevant deadline, *Maryland,* 958 F.3d at 1204. Indeed, the D.C. Circuit in *Wisconsin* specifically rejected petitioner arguments suggesting that upwind states should be excused from interstate transport obligations on the basis that some other sources of emissions (whether international or another upwind state) could be considered the ''but-for'' cause of downwind air quality problem. 938 F.3dat 323–324. The court viewed petitioners' arguments as essentially an argument ''that an upwind state 'contributes significantly' to downwind nonattainment only when its emissions are the sole cause of downwind nonattainment.'' 938 F.3d at 324. The court explained that ''an upwind state can 'contribute' to downwind nonattainment even if its emissions are not the but-for cause.'' *Id.*at 324–325. *See also Catawba County* v. *EPA,* 571 F.3d 20, 39 (D.C. Cir. 2009) (rejecting the argument ''that 'significantly contribute' unambiguously means 'strictly cause'' because there is ''no reason why the statute precludes EPA from determining that [an] addition of [pollutant] into the atmosphere is significant even though a nearby county's nonattainment problem would still persist in its absence''); *Miss. Comm'n on Envtl. Quality* v. *EPA,*790 F.3d 138, 163 n. 12 (D.C. Cir. 2015) (observing that the argument the ''there likely would have been no violation at all . . . if it were not for the emissions resulting from [another source is ''merely a rephrasing of the but-for causation rule that we rejected in *Catawba County.*''). Therefore, a state is not excused from eliminating its significant contribution on the basis that other upwind states also contribute some amount of pollution to the same receptors to which the state is linked.

As explained in Section IV.A of this action, ODEQ's weight of evidence also concluded that the Allegan receptor would be attaining the NAAQS in 2023 based on an analysis that assumed a projection of a linear reduction in DVs across a 12-year period (2011 to projected 2023 values), and then applied that annual reduction (1.1917 ppb/year) to the receptor's 2016-centered base period maximum DV (75 ppb). The EPA does not necessarily agree that the assumptions made in Oklahoma's weight-of-evidence analysis are reasonable; however, because the updated modeling also shows that Allegan County, MI is no longer a receptor in 2023, we propose to find such assumptions are inconsequential to our action on Oklahoma's SIP.

We recognize that the results of the EPA (2011 and 2016 base year) modeling indicated different receptors and linkages at Steps 1 and 2 of the 4-Step interstate transport framework. These differing results regarding receptors and linkages can be affected by the varying meteorology from year to year, but we do not think the differing results mean that the modeling or the EPA methodology for identifying receptors or linkages is inherently unreliable. Rather, these separate modeling runs all indicated: (1) That there are receptors that would struggle with nonattainment or maintenance in the future; and (2) that Oklahoma was linked to some set of these receptors, even if the receptors and linkages differed from one another in their specifics (*e.g.,* Oklahoma was linked to a different set of receptors in one modeling run versus another). These results indicate that emissions from Oklahoma are substantial enough to generate linkages at Steps 1 and 2 to at least some downwind receptors, under varying assumptions and meteorological conditions, even if the precise set of linkages changed between modeling runs.

We therefore propose that ODEQ was required to analyze emissions from the sources and other emissions activity from within the State to determine

whether its contributions were significant. Because ODEQ failed to perform this analysis, we propose to disapprove its submission.

4. Evaluation of Information Provided by ODEQ Regarding Step 4

Step 4 of the 4-Step interstate transport framework calls for development of permanent and federally enforceable control strategies to achieve the emissions reductions determined to be necessary at Step 3 to eliminate significant contribution to nonattainment or interference with maintenance of the NAAQS. As mentioned previously, ODEQ's SIP submission did not contain an evaluation of additional emission control opportunities (or establish that no additional controls are required), thus, no information was provided at Step 4. As a result, EPA proposes to disapprove ODEQ's submittal on the separate, additional basis that the State has not developed permanent and enforceable emissions reductions necessary to meet the obligations of CAA section 110(a)(2)(d)(i)(I).

5. Conclusion

Based on the EPA's evaluation of ODEQ's SIP submission, the EPA is proposing to find that the portion of ODEQ's SIP submission addressing CAA section 110(a)(2)(D)(i)(I) does not meet the State's interstate transport obligations because it fails to contain the necessary provisions to eliminate emissions which will interfere with maintenance of the 2015 ozone NAAQS in any other state.

C. Impact on Areas of Indian Country

Following the U.S. Supreme Court decision in *McGirt* v *Oklahoma,* 140 S Ct. 2452 (2020), the Governor of the State of Oklahoma requested approval under Section 10211(a) of the Safe, Accountable, Flexible, Efficient Transportation Equity Act of 2005: A Legacy for Users, Public Law 109–59, 119 Stat. 1144, 1937 (August 10, 2005) (''SAFETEA''), to administer in certain areas of Indian country (as defined at 18 U.S.C. 1151) the State's environmental regulatory programs that were previously approved by the EPA for areas outside of Indian country. The State's request excluded certain areas of Indian country further described below. In addition, the State only sought approval to the extent that such approval is necessary for the State to administer a program in light of *Oklahoma Dept. of Environmental Quality* v. *EPA,* 740 F.3d 185 (D.C. Cir. 2014).[92]

On October 1, 2020, the EPA approved Oklahoma's SAFETEA request to administer all of the State's EPA-approved environmental regulatory programs, including the Oklahoma SIP, in the requested areas of Indian country. As requested by Oklahoma, the EPA's approval under SAFETEA does not include Indian country lands, including rights-of-way running through the same, that: (1) Qualify as Indian allotments, the Indian titles to which have not been extinguished, under 18 U.S.C. 1151(c); (2) are held in trust by the United States on behalf of an individual Indian or Tribe; or (3) are owned in fee by a Tribe, if the Tribe (a) acquired that fee title to such land, or an area that included such land, in accordance with a treaty with the United States to which such Tribe was a party, and (b) never allotted the land to a member or citizen of the Tribe.

The EPA's approval under SAFETEA expressly provided that to the extent the EPA's prior approvals of Oklahoma's environmental programs excluded Indian country, any such exclusions are superseded for the geographic areas of Indian country covered by the EPA's approval of Oklahoma's SAFETEA request.[93] The approval also provided that future revisions or amendments to Oklahoma's approved environmental regulatory programs would extend to the covered areas of Indian country (without any further need for additional requests under SAFETEA).[94]

As explained earlier, the EPA is proposing to find that the portion of Oklahoma's SIP submission addressing CAA section 110(a)(2)(D)(i)(I) does not meet the State's interstate transport obligations, because it fails to contain the necessary provisions to eliminate emissions which will contribute significantly to nonattainment or interfere with maintenance of the 2015 ozone NAAQS in any other state. Consistent with the D.C. Circuit's decision in *ODEQ* v. *EPA* and the EPA's October 1, 2020, SAFETEA approval, this disapproval if finalized as proposed will extend to areas of Indian country in Oklahoma where the State has SIP planning authority.

V. Texas SIP Submission Addressing Interstate Transport of Air Pollution for the 2015 Ozone NAAQS and the EPA Evaluation of the SIP Submission

A. Summary of TCEQ SIP Submission Addressing Interstate Transport of Air Pollution for the 2015 Ozone NAAQS

On August 17, 2018, the Texas Commission on Environmental Quality (TCEQ) made a SIP submission addressing interstate transport of air pollution for the 2015 ozone NAAQS. The SIP submission provided TCEQ's analysis of their impact to downwind states using a framework similar to EPA's 4-Step framework and concluded that emissions from Texas will not contribute significantly to nonattainment or interfere with maintenance of the 2015 ozone NAAQS in other states.

In the submittal, TCEQ provided the steps they used to assess whether emissions from Texas contribute significantly to nonattainment or interfere with maintenance of the 2015 ozone NAAQS in other States: (1) Identify monitors projected to be in nonattainment or have maintenance issues in future year 2023; (2) identify for further review projected nonattainment and/or maintenance monitors in other states that are impacted by emissions from Texas; and (3) determine if emissions from Texas contribute significantly to nonattainment or interfere with maintenance at the monitors identified in TCEQ Step 2. TCEQ stated that their Step 1 is the same as EPA's Step 1 and that their Steps 2 and 3 are equivalent to EPA's Step 2. TCEQ used a

[92] In *ODEQ* v. *EPA,* the D.C. Circuit held that under the CAA, a state has the authority to implement a SIP in non-reservation areas of Indian country in the state, where there has been no demonstration of tribal jurisdiction. Under the D.C. Circuit's decision, the CAA does not provide authority to states to implement SIPs in Indian reservations. *ODEQ* did not, however, substantively address any request under the separate authority in Indian country provided specifically to Oklahoma under SAFETEA. That separate authority was not invoked until the State submitted its request under SAFETEA, and was not approved until the EPA's decision, described in this section, on October 1, 2020.

[93] The EPA's prior approvals relating to Oklahoma's SIP frequently noted that the SIP was not approved to apply in areas of Indian country (consistent with the D.C. Circuit's decision in *ODEQ* v. *EPA*) located in the state. *See, e.g.,* 85 FR 20178, 20180 (April 10, 2020). Such prior expressed limitations are superseded by the EPA's approval of Oklahoma's SAFETEA request.

[94] On December 22, 2021, the EPA proposed to withdraw and reconsider the October 1, 2020 SAFETEA approval. *See https://www.epa.gov/ok/proposed-withdrawal-and-reconsideration-and-supporting-information.* The EPA is engaging in further consultation with tribal governments and expects to have discussions with the State of Oklahoma as part of this reconsideration. The EPA also notes that the October 1, 2020 approval is the subject of a pending challenge in Federal court. *Pawnee Nation of Oklahoma* v *Regan,* No. 20–9635 (10th Cir.). The EPA may make further changes to the approval of Oklahoma's program to reflect the outcome of the proposed withdrawal and reconsideration of the October 1, 2020 SAFETEA approval. To the extent any change occurs in the scope of Oklahoma's SIP authority in Indian country before the finalization of this proposed rule, such a change may affect the scope of the EPA's final action on the proposed rule.

contribution threshold of one percent of the NAAQS (0.7 ppb) in their Step 2 analysis to identify nonattainmentand/or maintenance monitors in other states that are impacted by emissions from Texas. TCEQ further stated that EPA's Steps 3 and 4 are relevant only if emissions from Texas contribute significantly to nonattainment or interfere with maintenance at downwind monitors in another state. Because Texas TCEQ concluded that it has no such emissions, EPA's Steps 3 and 4 are not addressed in the SIP submission.

To identify monitors projected to be in nonattainment or have maintenance issues in 2023, (EPA Step 1 and TCEQ Step 1), TCEQ conducted its own regional photochemical modeling using a 2012 base year. TCEQ's modeling and EPA's modeling differ in significant respects, which are discussed in detail in the EPA Region 6 2015 8-Hour Ozone Transport SIP Proposal Technical Support Document (EPA Region 6 TSD).[95] In particular, TCEQ used a 2012 base year, stating that (1) the year 2012 had above average temperatures across most of the U.S., except in some states in the southeast and (2) the year 2011, (which was used by the EPA in the NODA published on January 6, 2017 and the October 2017 updated modeling data for 2023),[96] was a meteorologically anomalous year for Texas and surrounding states as it was the hottest year on record and the single-worst drought year recorded in Texas since 1895. TCEQ's modeling also used some different emissions estimates for the base year and future year 2023 emissions, including different future year emissions for EGUs. There were also some differences in methods used in the model results analysis and the model performance evaluation. TCEQ also used a different methodology than the EPA to identify monitors projected to be maintenance receptors in 2023. TCEQ used only the most recent DV containing the base year 2012, (*i.e.,* the monitored DV for 2012–2014), to project a 2023 ''maintenance DV'' for assessing whether a monitor would have maintenance issues. The EPA's methodology uses the maximum of the three consecutive regulatory DVs containing the base year, which is the highest monitored DV from among the three DVs that contain the 2011 base year (*i.e.,* the 2009–2011 DV, 2010–2012 DV or and 2011–2013 DV that all contain modeled base year of 2011), to project a 2023 maximum DV for assessing whether a monitor would have maintenance issues. Texas explained that it chose to define maintenance receptors in this way to capture more recent emission reductions. The SIP submittal also included a discussion of why TCEQ believes their approach for identifying maintenance receptors is appropriate. The TCEQ modeling and differences with the EPA modeling is discussed in detail in the EPA Region 6 TSD for this action.

Based on their modeling, TCEQ provided: (1) A table of downwind receptors projected to be in nonattainment of the 2015 ozone NAAQS in 2023 and have a contribution from Texas emissions at a threshold of 0.7 ppb or greater and (2) a table of downwind maintenance receptors projected to have problems attaining and maintaining the 2015 ozone NAAQS in 2023 and have a contribution from Texas emissions at a threshold of 0.7 ppb or greater. TCEQ identified these receptors for further analysis. The nonattainment and maintenance receptors provided by TCEQ are listed in Table TX–1. TCEQ noted that except for Arapahoe County, CO (Monitor ID. 80050002) all the maintenance receptors are also nonattainment receptors.

TABLE TX–1—PROJECTED 2023 NONATTAINMENT AND MAINTENANCE RECEPTORS IDENTIFIED BY TCEQ MODELING USING 2012 BASE YEAR

Receptor (site ID, county, state)	2023 average DV (ppb)	2023 maintenance DV (ppb) (TCEQ method)	Texas contribution (ppb)
80350004, Douglas, CO	73	72	1.42
80590006, Jefferson, CO	72	73	1.26
80590011, Jefferson, CO	71	71	1.26
80690011, Larimer, CO	72	71	1.22
80050002, Arapahoe, CO	*70	71	1.15
40038001, Cochise, AZ	71	**69	1.06
60371201, Los Angeles, CA	80	78	0.76
60371701, Los Angeles, CA	80	82	0.72
60376012, Los Angeles, CA	87	86	0.9
60658001, Riverside, CA	88	85	0.73
60658005, Riverside, CA	84	83	0.71
60710001, San Bernardino, CA	71	72	0.84
60710306, San Bernardino, CA	76	77	0.81
60711004, San Bernardino, CA	91	90	0.88
60714001, San Bernardino, CA	82	79	0.86
60714003, San Bernardino, CA	94	91	0.74

*TCEQ did not include this value in their SIP narrative (this cell was blank). The EPA obtained this value from data that was in TCEQ's spreadsheet of future 2023 DVs with state contributions.

**TCEQ did not provide this calculation. The EPA used TCEQ's modeling information to calculate this value using the Relative Response Factor in TCEQ spreadsheet of future 2023 DVs with state contributions and the monitor's 2012–2014 DV (0.983 X 71 ppb, truncation applied).

TCEQ also noted that in the EPA's 2017 Transport NODA, the EPA's modeling linked Texas to six receptors based on the receptors being identified as nonattainment or maintenance receptors and based on a 0.7 ppb contribution threshold. TCEQ provided a table of those monitors along with the EPA and TCEQ modeling results for

[95] ''EPA Region 6 2015 8-Hour Ozone Transport SIP Proposal Technical Support Document'' (EPA Region 6 2015 Ozone Transport SIP TSD.pdf) included in Docket ID No. EPA–R06–OAR–2021–0801.

[96] The NODA and the October 2017 modeling are discussed in Section I.C of this action.

those receptors (Table TX–2).[97] TCEQ stated that the differences are due to changes the TCEQ made to modeling inputs (primarily the different base year of 2012 versus the EPA's 2011), analysis, and methodologies (primarily TCEQ's alternate maintenance receptor methodology), see the EPA Region 6 TSD included in the Regional docket for this action (Docket ID No. EPA–R06–OAR–2021–0801) for more details. With exception of the Jefferson County, CO receptor (Monitor ID. 80590011) TCEQ did not further review its linkages to any of the receptors in Table TX–2.

TABLE TX–2—TCEQ INFORMATION ON RECEPTORS LINKED TO TEXAS BY EPA MODELING IN THE TRANSPORT NODA PUBLISHED ON JANUARY 6, 2017

Receptor (site ID, county, state)	EPA 2023 average DV (ppb)	EPA Texas contribution (ppb)	TCEQ 2023 average DV (ppb)	TCEQ Texas contribution (ppb)
260050003, Allegan, MI	68.8	2.49	71	0.59
551170006, Sheboygan, WI	71.0	1.92	70	0.73
240251001, Harford, MD	71.3	0.91	65	0.69
360850067, Richmond, NY	71.2	0.77	62	0.67
361030002, Suffolk, NY	71.3	0.71	67	0.63
80590011, Jefferson, CO	69.7	1.03	71	1.26

TCEQ then used a weight of evidence approach to assess whether emissions from Texas contribute significantly to nonattainment or interfere with maintenance at the receptors listed in Table TX–1. TCEQ stated that the Texas contribution to a receptor should be deemed ''significant'' only if there is a persistent and consistent pattern of contribution on several days with elevated ozone. Consideration was given to factors such as DV trends, number of elevated ozone days, back trajectory analysis on elevated ozone days, modeled concentrations on future expected elevated ozone days, total interstate contributions at tagged monitors, and responsiveness of ozone to emissions from Texas. Based on their assessment, TCEQ concluded that emissions from Texas do not contribute significantly to nonattainment or interfere with maintenance of the 2015 ozone NAAQS at any downwind monitors. Our evaluation of the TCEQ submission is further discussed in Section V.B and in the EPA Region 6 TSD for this action.

B. EPA Evaluation of the TCEQ SIP Submission

Based on the EPA's evaluation of the SIP submission, the EPA is proposing to find that TCEQ's August 17, 2018, SIP submission does not meet the State's obligations with respect to prohibiting emissions that contribute significantly to nonattainment or interfere with maintenance of the 2015 ozone NAAQS in any other state.

1. Evaluation of Information Provided by TCEQ Regarding Step 1

As explained in Section I of this action, at Step 1 of the 4-Step interstate transport framework, the EPA identifies monitoring sites that are projected to have problems attaining and/or maintaining the NAAQS (*i.e.,* nonattainment and maintenance receptors). In executing this step, TCEQ elected to rely on their own modeling and methodology for identifying receptors. The EPA is evaluating the TCEQ's modeling and methodology here at Step 1.

i. Evaluation of TCEQ's Methodology for Identifying Maintenance Receptors

As discussed in Section V.A of this action, in addition to the use of an alternative modeling platform, TCEQ also created its own method for identifying maintenance receptors. TCEQ has not adequately explained or justified how its method for identifying maintenance receptors reasonably identifies areas that will have difficulty maintaining the NAAQS. The EPA proposes to find that TCEQ has not provided a sufficient technical basis for how its chosen methodology gives meaning to the CAA's instruction that states submit good neighbor SIPs that prohibit their states' emissions from interfering with the maintenance of the NAAQS in another state.

In *North Carolina* v. *EPA,* 531 F.3d 896, 909–11 (D.C. Cir. 2008), the D.C. Circuit rejected the EPA's CAIR on the basis that the EPA had not adequately given meaning to the phrase ''interfere with maintenance'' in the good neighbor provision. Specifically, North Carolina argued that it had counties that were projected to attain the NAAQS in the future analytic year but were at risk of falling back into nonattainment due to interference from upwind sources, particularly given year-to-year variability in ozone levels. The court agreed, holding that the EPA's rule did not adequately protect ''[a]reas that find themselves barely meeting attainment.'' *Id.* at 910. Consequently, the EPA has developed a methodology, as described elsewhere in this action and used in its 2011 CSAPR and its 2016 CSAPR Update and Revised CSAPR Update, for identifying areas that may struggle to maintain the NAAQS. *See* 76 FR at 48227–28. The EPA's approach to addressing maintenance receptors was upheld in the *EME Homer City* litigation. *See* 795 F.3d 118, 136–37. It was also upheld in *Wisconsin.* 938 F.3d at 325–26. In *Wisconsin,* the court noted that four upwind states were linked only to maintenance receptors and rejected the argument that application of the same control level as the EPA imposes for those states linked to nonattainment receptors was unreasonable or unlawful absent a particularized showing of overcontrol. *Id.* at 327.

To explain the differences between TCEQ's and the EPA's methodology for identifying maintenance receptors, it is helpful to provide some additional context of how the EPA projects future air quality. The EPA's air quality modeling guidance has long recommended developing a base design value (DV)[98] (*i.e.,* the design value that will be used as a starting point to model and analyze for purposes of projecting future air quality concentrations) that is the average of three DVs spanning a five-year period, centered around one year for which an emissions inventory will be submitted (*e.g.,* if 2011 was the base emissions inventory year, a state would use monitored values from 2009–2011, 2010–2012, 2011–2013 as the starting point for projecting air quality concentrations in future years).[99] The

[97] TCEQ SIP Submission, at page 3–49 (Table 3–12).

[98] *See* FN 8.

[99] *See* FN 73.

average of these three DVs is then multiplied by a relative response factor (RRF) [100] to generate an average DV for the future year. If a receptor's average future year DV is greater than or equal to the level of the NAAQS, and the receptor has recent monitored data that violates the NAAQS, that receptor is considered a ''nonattainment'' receptor at Step 1. To identify maintenance receptors, the EPA's methodology looks to the highest DV of the three DVs used to calculate the 5-year weighted average design value (*e.g.,* in the 2011 example, if 2009–2011 had the highest design value of 2009–2011, 2010–2012, and 2011–2013). The EPA then applies the same relative response factor to that highest design value to generate a projected future maximum design value. Where a receptor's maximum design value exceeds the level of the NAAQS, the EPA has deemed those receptors to be ''maintenance'' receptors. This methodology was designed to address the D.C. Circuit's holding that the CAA's ''interference with maintenance'' prong requires states and the EPA to protect areas that may struggle with maintaining the standard in the face of inter-annual variability in ozone-conducive conditions.

In its modeling, TCEQ adopted an identical approach to the EPA's for identifying nonattainment receptors—it looked at three sets of DVs over a five-year period and averaged those DVs to generate a base year DV. TCEQ then applied a relative response factor to that base year design value to project a receptor's average design value in the future year. For its maintenance receptors, however, TCEQ used only the most recent design value of the set of three DVs, regardless of whether the most recent design value was highest or lowest, instead of considering variability in conditions over a five-year period, or using the highest DV of the three DVs making up the base year design value. TCEQ's proffered explanation for using the most recent DV to identify maintenance receptors was that the latest DV ''takes into consideration . . . any emissions reductions that might have occurred.'' [101] However, TCEQ in its submission does not explain how this methodology takes into account meteorological variability in identifying those areas that may be meeting the NAAQS or that may be projected to meet the NAAQS but may nevertheless struggle to maintain the NAAQS.

TCEQ argued that the 3-year DV used includes some meteorological variability. Unfortunately, the three years of variation that TCEQ accounted for is already built into the structure of the standard. Thus, the TCEQ method gave no consideration to the variability between calculated DVs which provides a direct indication of the difficulty a receptor will have in maintaining the standard. In other words, to determine whether a receptor will have difficulty maintaining the standard, one must consider the variation in the metric that will be used to determine compliance with the standard. An indication of the variability of a metric cannot be determined by only considering a single estimate of that metric.

TCEQ's stated purpose in using the most recent DV was to capture more recent emissions reductions. TCEQ's methodology, however, limits receptors which could be identified as maintenance receptors, compared to the EPA's methodology largely because it only looks at one design value period rather than selecting the maximum of the three DV periods EPA's methodology considers. Thus, TCEQ's methodology greatly reduces the probability that meteorological conditions which make it difficult to maintain the standard will be considered. As discussed further below, the effects of emissions trends are already captured through other aspects of the methodology to identify receptors. So, in trying to give more weight to emission reductions, by selecting only one design value (2012–2014) for its base year, TCEQ's methodology did not give any consideration to interannual variability in ozone-conducive meteorology as does the EPA's method.

The EPA's methodology, using the maximum DV which accounts for the variability in ozone concentrations and DVs due to changes in meteorology over the five years of the base year DV period, was designed to identify those areas that might struggle to maintain the NAAQS in particularly ozone conducive conditions. TCEQ claimed that the EPA's method undervalues changes in air quality due to emission reductions and overvalues changes due to variation in meteorology. TCEQ pointed out that emissions nationwide are generally trending downward as a result of Federal motor vehicle standards and other technological improvements. The EPA agrees that ozone levels generally trend downward, but there is not a steady decline from year to year in ozone concentrations. Rather, ozone levels tend to vary from year to year with some years showing an increase instead of a decrease mainly due to inter-annual variability in ozone-conducive meteorology.[102] The variation of DVs at individual monitors from year to year can be significant, even where emissions trend downwards. The EPA also assessed a number of monitored DV trends that were provided in TCEQ's SIP submission and previous TCEQ attainment demonstration SIPs indicating that there are at times large annual fluctuations upward from year to year in monitored DVs (sometimes 2–3 ppb increase in one year) that are due to variations in meteorology.[103] This is precisely why it is important to consider highly variable meteorology and its influence on DVs—the issue at the heart of the D.C. Circuit's finding on ''interference with maintenance'' in *North Carolina.* Areas that are required under the Act to attain by an attainment date may fail to attain because of a combination of both local emissions, upwind emissions, and ozone conducive meteorology, among other factors. The *North Carolina* decision made clear that in interpreting the good neighbor provision, upwind state and the EPA obligations to reduce emissions must account for variable conditions that could cause an area that is sometimes attaining the NAAQS to fall out of attainment. *See also Wisconsin,* 938 F.3d at 327 (''Variations in atmospheric conditions and weather patterns can bring maintenance receptors into nonattainment even *without* elevated emissions.'').

In addition, TCEQ claimed that its use of the 2012–2014 DV (*i.e.,* the most recent in the 5-year base period it examined) is more reliable than the EPA's method, because that more recent DV accounts for both emission reductions and because there is a shorter interval between the monitored DV and the projected DV. As we note elsewhere, the TCEQ's base year modeled inventory is 2012 emissions and the TCEQ's model projections for 2023 include the expected emission reductions from 2012 thru 2014 and to 2023. By just using the 2012–2014 DV data, TCEQ claimed they are giving weight to emission reductions during the final base years where EPA's method does not. The effect of emission reductions, however, is already factored in the method since the modeling projection to 2023 is explicitly designed to project the changes in ozone due to emission reductions from the 2012 base year emission levels. So, in fact, the EPA method does give weight to emission reductions. Furthermore, since

[100] *See* FN 53.

[101] TCEQ SIP submission at 3–39 to 3–40.

[102] *See* EPA Region 6 TSD, included in Docket ID No. EPA–R06–OAR–2021–0801.

[103] *Id.*

TCEQ agrees that the average of the DVs based on 2010–2014 ozone levels are reliable enough to use in the identification of nonattainment receptors, it is unclear how the 2012–2014 period is deemed more reliable for the maintenance test since the modeled emissions are still for 2012. We also note, as discussed throughout this action, the EPA has updated its modeling to use a 2016 base year—that is, a five year period spanning 2014–2018, and applied its methodology for defining maintenance receptors using that five year base period. Using a more recent base period (EPA's 2016v2) provides the most recent design values, shorter period of projection (2016 to 2023 versus a 2011 or 2012 base year) and a more accurate basis for projections of future air quality. We note that the EPA undertook a large collaborative multi-year effort with states (including TCEQ) and other stakeholders input and review in developing the 2016v2 emission inventories. By virtue of this update, any monitored DV used by the EPA to identify maintenance receptors in this action accounts for more recent emission reductions and provides a shorter interval between base year monitored DV and the projected future analytic year.

As discussed further in the EPA Region 6 TSD [104] for this action, the EPA has reviewed the set of 21 receptors for which Texas had contributions of 0.7 ppb or more in the EPA's 2016 base year modeling analyses, or TCEQ's modeling (2012 base year), and evaluated the results of using TCEQ's alternate maintenance methodology. For these 21 receptors, TCEQ's method resulted in 15 of the 21 2023 maintenance DVs predicted to be lower than the 2023 nonattainment DVs from the nonattainment methodology that uses the 5-year center weighted average. Of these 15 receptors, three receptors have 2023 maintenance DVs that are 3 ppb lower, five receptors have 2023 maintenance DVs that are 2 ppb lower, and seven receptors have 2023 maintenance DVs that are 1 ppb lower. In comparison, using the EPA's maintenance methodology results in all 21 2023 maintenance DVs being equal or up to 4 ppb higher than the 2023 nonattainment DVs. Again, the EPA uses the average of the three DVs that contain the base year modeled for the nonattainment methodology and the maximum of these three DVs for the maintenance methodology. Because TCEQ's maintenance methodology of just using the most recent DV (2012–2014 DV) often results in maintenance DVs lower than the 2023 nonattainment DVs methodology results, the EPA finds that the TCEQ methodology is not adequately identifying conditions when a receptor would have more difficulty maintaining the standard. In fact, the TCEQ's method also identified one receptor in their SIP submission as a nonattainment receptor in 2023 that would not have been identified as a maintenance receptor, which further highlights the concern that TCEQ's method did not adequately identify areas that may struggle to maintain the standard. TCEQ did not address whether the three years that comprise the most recent design value (*i.e.,* 2012, 2013, and 2014) had meteorological conditions highly conducive for formation of high ozone concentrations and thus would be an appropriate time period to assess whether area could have difficulty maintaining the standard and the EPA's analysis confirms that this time period is not highly conducive to ozone formation, at least for many receptors. The consequence of TCEQ's maintenance method is that it often results in lower DVs than the nonattainment test as demonstrated by our analysis, which indicates that it is often not considering conditions when an area would have difficulty maintaining the standard. It is also unreasonable to have a test that would not identify nonattainment receptors also as maintenance receptors.

TCEQ also made several additional assertions in support of their conclusion that their method for identifying maintenance receptors was the better reading of the CAA, compared to the EPA's. TCEQ claimed that its approach was more consistent with the CAA's concept of maintenance as areas that were formerly nonattainment and that have since attained and will continue to maintain by accounting for: (1) Emissions reductions occurring in the later design values of the base DV period; (2) ''commitments regarding contingency measures to address future emission reductions;'' and (3) the impact of any maintenance plans that are in place. TCEQ also asserted that the EPA's approach conflates the likelihood of attaining the standard in a future year and the ability of an attainment monitor to maintain that attainment status. Specifically, TCEQ argued that because any remedies devised to address nonattainment monitors would have to apply to maintenance monitors, a practical consequence of the EPA's approach is that it could lead to over-control and that it might require upwind states to consider or implement controls when the downwind state in which the monitor is located does not have any obligations to control local emissions. TCEQ argued that this ''conflation'' of nonattainment and maintenance results in there being no independent meaning to ''maintenance.''

With respect to the first of these assertions from TCEQ, we note that TCEQ's methodology for identifying receptors (like the EPA's) is entirely distinct from ozone designations under the Clean Air Act; neither TCEQ nor the EPA take current or presumed future designations of areas into account, and any implementation requirements like a maintenance plan under CAA section 175A, in identifying receptors. TCEQ's' discussion, therefore, of maintenance plan contingency measures or maintenance plans generally is irrelevant and misplaced. None of the areas to which Texas is linked in the EPA 2016v2 modeling has been redesignated to attainment for the 2015 ozone NAAQS, and none of the areas to which Texas is linked in its own modeling has been redesignated to attainment for that NAAQS. We also fail to see how TCEQ's approach to identifying maintenance receptors differs in any relevant respect from the EPA's approach with regard to the alleged ''conflation'' of projecting attainment in a future year rather than the ability of an attainment receptor to maintain attainment. Both TCEQ and the EPA identify maintenance receptors based on projections of air quality in a future year to determine whether the receptor will have difficulty attaining or maintaining the standard. TCEQ's arguments about overcontrol based on the application of a uniform remedy to states linked to both nonattainment and maintenance receptors were also not germane; in this case, TCEQ had identified *no* remedy to apply whatsoever because it had failed to identify that the emissions from Texas cause a problem in the first instance. The D.C. Circuit has already rejected the idea that the application of a uniform control to both nonattainment and maintenance receptors is on its face overcontrol or impermissible under the interstate transport provision. *See Wisconsin,* 938 F.3d at 327. Based on our evaluation of TCEQ's approach to identify maintenance receptors for 2023, we propose to find the State's approach is inadequate as it does not sufficiently identify maintenance receptors. Further, TCEQ had not explained how its

[104] ''EPA Region 6 2015 8-Hour Ozone Transport SIP Proposal Technical Support Document'' (EPA Region 6 2015 Ozone Transport SIP TSD.pdf) included in Docket ID No. EPA–R06–OAR–2021–0801.

approach meets the statutory requirement to address areas that, even if meeting the NAAQS, may struggle to maintain the standard in years where conditions are conducive to ozone formation. Rather, the TCEQ had created its own approach to identify these areas that they describe as designed to account for the most emission reductions possible—*i.e.,* the most recent DV of the three under analysis; an approach that likely under-identifies areas that will struggle to maintain the NAAQS and that certainly is not designed to capture potential air quality problems.

ii. Evaluation of the TCEQ Modeling

As discussed in Section V.A of this action, TCEQ conducted regional photochemical modeling to identify nonattainment and maintenance receptors in 2023 using a 2012 base year. As discussed further in the EPA Region 6 TSD, we have several concerns with the reliability of TCEQ's modeling results. States are free to develop their own modeling, but that modeling must be technically supportable, and the EPA is obligated to assess and evaluate the reliability of that technical demonstration when determining whether the Act's requirements are met.

The TCEQ's modeling underestimates future ozone levels. When the TCEQ 2023 projected concentrations are compared to 2020 and preliminary 2021 monitor values, it is clear that the TCEQ modeling is projecting an unusual decline in ozone levels without there being an unusual level of emission reductions to support the decline. The EPA compared recent monitoring values and reasonably anticipated decreases in DVs by 2023 both within Texas and in other parts of the country. These underestimations likely result in TCEQ's modeling not adequately identifying nonattainment and/or maintenance receptors in 2023. These underestimations also result in smaller projected contributions from Texas emissions to downwind states. See EPA Region 6 TSD for full analysis details.

One analysis included in the EPA Region 6 TSD examined the average amount of improvement that would have to occur for the 9 monitors with the highest measured design values in the Dallas-Ft. Worth and Houston-Galveston-Brazoria nonattainment areas (those with an observed 2018–2020 DV of 74 ppb or greater) to reach the level of ozone projected by the TCEQ modeling. The average decrease needed by 2023 to meet TCEQ's 2023 projected DVs is 7.56 ppb. Improvements of this magnitude do not occur in three years unless there is an unusually large change in emissions or a large change in meteorological conduciveness for ozone generation. TCEQ did not identify any large emission reductions not already accounted for in the modeling to be implemented in the 2021–2023 timeframe nor is the EPA aware of such a change. This information supports our finding that that TCEQ's modeling is underestimating future ozone levels in the two nonattainment areas in Texas that make up a large proportion of the total ozone and a large portion of emissions of ozone pre-cursors that transport to downwind areas. This underestimation of future year ozone levels from Texas emissions can cause both an underestimation of ozone in downwind areas and also an underestimation of Texas's impact on downwind State's ozone nonattainment and maintenance receptors.

TCEQ's modeling also underestimates 2023 ozone levels outside of the State of Texas including areas of interest in California, Colorado and the Midwest Region (Illinois, Wisconsin, and Michigan). The EPA discusses this underprediction for all of these areas in the EPA Region 6 TSD. In Table TX–3, we present only the results for the Midwest Region along with the EPA's modeling prediction. We note that TCEQ's 2023 modeled DVs are significantly lower than the EPA's 2023 modeled DVs. The table also provides recent monitored 2020 DVs and preliminary 2021 DVs, which shows that recent monitored ozone concentrations are significantly higher than TCEQ's modeling projected for 2023. TCEQ's ozone DVs for these receptors would need to drop on the order of 7–15 ppb in two to three years for TCEQ's projections to bear out. As noted previously, this would require an unusual amount of emission reductions without any control measures identified of sufficient magnitude. We note that the EPA's projected 2023 ozone DVs based on EPA 2016v2 modeling show ozone DVs that are also lower than recent monitoring data. However, EPA 2016v2 modeling projections are much closer to anticipated 2023 ozone levels as compared to TCEQ's modeling. This indicates that the EPA's modeling is more accurate in identifying nonattainment and/or maintenance receptors in the Midwest Region. While the TCEQ modeling projects much lower overall ozone levels for the Midwest Region in 2023, the modeling does tend to corroborate the projected amount emissions that Texas may be contributing to projected ozone levels at 5 of the 7 nonattainment and maintenance receptors identified in the EPA's modeling.[105] Thus, despite the differences in identification of nonattainment and maintenance receptors, both sets of modeling indicate that Texas's contribution to receptors in the Midwest Region are greater than 0.7 ppb (*i.e.,* 1 percent of the 2015 ozone NAAQS). Table TX–3 provides information on those receptors, including the amount of contribution attributed to emissions from Texas based on EPA's 2016v2 modeling and TCEQ's modeling. Despite the differences in identification of nonattainment and maintenance receptors, both sets of modeling indicate that Texas's contribution to receptors in the Midwest are greater than 0.7 ppb (*i.e.,* 1 percent of the 2015 ozone NAAQS).

TABLE TX–3—EPA AND TCEQ MODELING RESULTS FOR DOWNWIND RECEPTORS IDENTIFIED BY EPA 2016V2 MODELING

Receptor (site ID, county, state)	2023 nonattainment/ maintenance (EPA 2016v2)	EPA: 2023 average DV/ maximum DV (ppb)	TCEQ: 2023 average DV/ maintenance DV (ppb)*	Monitored 2018–2020 DV/preliminary 2019–2021 DV** (ppb)	EPA: Texas contribution (ppb)	TCEQ: Texas contribution (ppb)
170310001, Cook, IL	Maintenance	69.6/73.4	60/58	75/71	0.86	1.6.
170310032, Cook, IL	Maintenance	69.8/72.4	68/66	74/75	1.46	1.31.
170314201, Cook, IL	Maintenance	69.9/73.4	64/62	77/74	1.15	1.25.
170317002, Cook, IL	Maintenance	70.1/73.0	66/65	75/73	1.58	1.22.

[105] We note that for two of the Wisconsin receptors, TCEQ's modeling does not provide information to generate 2023 DVs, so only 5 of the 7 monitors can be compared.

TABLE TX–3—EPA AND TCEQ MODELING RESULTS FOR DOWNWIND RECEPTORS IDENTIFIED BY EPA 2016V2 MODELING—Continued

Receptor (site ID, county, state)	2023 nonattainment/ maintenance (EPA 2016v2)	EPA: 2023 average DV/ maximum DV (ppb)	TCEQ: 2023 average DV/ maintenance DV (ppb)*	Monitored 2018–2020 DV/preliminary 2019–2021 DV** (ppb)	EPA: Texas contribution (ppb)	TCEQ: Texas contribution (ppb)
550590019, Kenosha, WI	Nonattainment	72.8/73.7	67/66	74/74	1.72	1.44.
550590025, Kenosha, WI	Maintenance	69.2/72.3	No data***	74/72	1.81	No data.***
551010020, Racine, WI	Nonattainment	71.3/73.2	No data***	73/73	1.34	No data.***

* TCEQ did not provide sufficient data and analysis of the meteorology for the 2010–2014 period to support their claim that 2012–2014 period was a worst-case combination of meteorology compared to the 2010–2012 and 2011–2013 periods. If the future DV projected from this highest value is below the standard, one can be reasonably certain the receptor will not have difficulty maintaining the standard and, as such, upwind states will not interfere with maintenance in downwind states. Because the TCEQ method only looks at one DV and does not account for the variability in DVs due to meteorological conditions, it is less likely to identify maintenance receptors than the EPA method. *See https://www.epa.gov/air-trends/air-quality-design-values*

** Preliminary 2019–2021 DVs. Monitoring data from the EPA's Air Quality System (AQS) (*https://www.epa.gov/aqs*). 2021 monitoring data is preliminary and still has to undergo Quality Assurance/Quality Control analysis and be certified by the State of Texas, submitted to the EPA, and reviewed and concurred on by EPA. 2018–2020 DVs are 72 ppb and 73 ppb at the Denton County and Tarrant County monitors/receptors respectively. Preliminary 2019–2021 DVs are 74 ppb and 72 ppb at the Denton County and Tarrant County monitors/receptors respectively.

*** Kenosha, WI Monitor ID. 550590025 was installed and began operating May 13, 2013, so the first three year DV available is 2013–2015. Racine, WI Monitor ID. 551010020 was installed in April 14, 2014 so the first three year DV available is 2015–2017. TCEQ's modeling used monitored DV data for 2010–2012, 2011–2013, and 2012–2014 to project to the future year. Since these monitors do not have valid DVs for these periods, TCEQ's modeling can't be used to project 2023 values and identify if they would be nonattainment or maintenance receptors.

The EPA investigated TCEQs modeling and the underestimation for the future year. See the EPA Region 6 TSD for further information on our review. Our review indicated some underestimation bias in the base case and general model performance concerns but nothing that was a clear cause of the much lower 2023 DVs that TCEQ's modeling is projecting. For the EPA's 2016 base year modeling, the EPA undertook a large collaborative multi-year effort with states (including Texas) and other stakeholder input in developing the 2016 emission inventories including 2016v2, so that the EPA's modeling would be based on the best data available. Using a 2016 base year also provides a more recent platform that shortens the number of years to project emission changes, reducing uncertainties in the 2023 projection compared to TCEQ's projection from a 2012 base to 2023 or the EPA's earlier 2011 base year modeling. Use of a more recent 2016 base year also allows for the use of monitored DVs from a more recent period. The combination of these and other issues discussed in the EPA Region 6 TSD result in less model uncertainty compared to TCEQ's 2012 base year modeling and has provided a better estimate of 2023 ozone levels and therefore, we believe a more reliable tool for predicting which areas of the country will be nonattainment or have difficulty maintaining the standard as well as assessing contributions from upwind states.

The EPA's modeling using both 2011 and 2016 base year periods identified that Texas was linked to nonattainment and/or maintenance receptors in 2023 in the Midwest Region (Illinois, Wisconsin, and Michigan), while TCEQ's modeling using a 2012 base year indicated only linkages to western receptors. As discussed above and in the EPA Region 6 TSD, the TCEQ's modeling is underestimating projected ozone levels in the Midwest Region for 2023. If TCEQ's 2023 modeled DVs were closer to recent observed monitoring data and anticipated 2023 monitored DVs, TCEQ would likely have also identified nonattainment and/or maintenance receptors in the Midwest Region.

To summarize, TCEQ did its own modeling at Step 1. Our analysis shows that TCEQ's modeling likely underestimates ozone levels at potential receptors and that TCEQ's methodology for identifying maintenance receptors used to identify maintenance receptors fails to reasonably identify areas that will have difficulty maintaining the NAAQS.

2. Evaluation of Information Provided by TCEQ Regarding Step 2

TCEQ, like the EPA, used a 1 percent of the ozone NAAQS (or 0.7 ppb) as the ''linkage'' threshold to identify states as ''linked'' for contributions it made to areas with projected air quality problems. Although TCEQ asserted that the EPA treats the 1 percent threshold as the threshold by which the EPA determines ''significant contribution'' this is in fact incorrect. The EPA, like TCEQ, uses the 1 percent contribution threshold to identify those linkages between a contributing upwind state and a receptor projected to have air quality problems that warrant further review and additional analysis. We therefore endorse TCEQ' use of the 1 percent contribution threshold to identify linkages requiring further analysis. However, because we propose to disapprove TCEQ's identification of nonattainment and/or maintenance receptors (at Step 1) due to underestimations in TCEQ's modeling and their unsupported methodology of identifying maintenance receptors, their submission as to Step 2 is also flawed. We note, however, that even in its own modeling, TCEQ has identified nonattainment and/or maintenance receptors to which it contributed more than 1 percent of the NAAQS (*i.e.,* identified linkages warranting additional analysis at Step 3).

3. Results of the EPA's Step 1 and Step 2 Modeling and Findings for Texas

As described in Section I and elsewhere in this action, the EPA performed air quality modeling using the 2016v2 emissions platform to project design values and contributions for 2023. This data was examined to determine if Texas contributes at or above the threshold of 1 percent of the 2015 ozone NAAQS (0.70 ppb) to any downwind nonattainment or maintenance receptor. As shown in Table TX–4, the data [106] indicate that in 2023, emissions from Texas are projected to contribute greater than 1 percent of the standard to both

[106] Design values and contributions at individual monitoring sites nationwide are provided in the file: ''2016v2_DVs_state_contributions.xlsx'', which is included in docket ID No. EPA–HQ–OAR–2021–0663.

nonattainment and maintenance-only receptors in the Chicago, IL–IN–WI nonattainment area (4 Cook County, IL receptors and 2 Kenosha County, WI receptors) and the Milwaukee, WI nonattainment area (one Racine County receptor).[107]

TABLE TX–4—PROJECTED NONATTAINMENT AND MAINTENANCE RECEPTORS WITH TEXAS LINKAGES BASED ON EPA 2016V2

Receptor (site ID, county, state)	Nonattainment/maintenance	2023 average DV (ppb)	2023 maximum DV (ppb)	Texas contribution (ppb)
170310001, Cook, IL	Maintenance	69.6	73.4	0.86
170310032, Cook, IL	Maintenance	69.8	72.4	1.46
170314201, Cook, IL	Maintenance	69.9	73.4	1.15
170317002, Cook, IL	Maintenance	70.1	73.0	1.58
550590019, Kenosha, WI	Nonattainment	72.8	73.7	1.72
550590025, Kenosha, WI	Maintenance	69.2	72.3	1.81
551010020, Racine, WI	Nonattainment	71.3	73.2	1.34

We recognize that the results of the EPA (2011 and 2016 base year) and TCEQ (2012 base year) modeling indicated different receptors and linkages at Steps 1 and 2 of the 4-Step interstate transport framework. These differing results regarding receptors and linkages can be affected by the varying meteorology from year to year, but we do not think the differing results mean that the modeling or the EPA or the State's methodology for identifying receptors or linkages is inherently unreliable. Rather, the three separate modeling runs all indicated: (1) There were receptors that would struggle with nonattainment or maintenance in the future; and (2) Texas was linked to some set of these receptors, even if the receptors and linkages differed from one another in their specifics (*e.g.,* a different set of receptors were identified to have nonattainment or maintenance problems, or Texas was linked to different receptors in one modeling run versus another). These results indicate that emissions from Texas were substantial enough to generate linkages at Steps 1 and 2 to some downwind receptors, under varying assumptions and meteorological conditions, even if the precise set of linkages changed between modeling runs. Under these circumstances, we think it is appropriate to proceed to a Step 3 analysis to determine what portion of emissions from Texas should be deemed ''significant.'' In doing so, we are not agreeing with the methods and assumptions contained in TCEQ's modeling (see previous discussion and the EPA Region 6 TSD included in the docket for this proposal for further discussion on evaluation of that modeling), or that we consider our own earlier modeling to be of equal reliability relative to more recent modeling. However, where alternative or older modeling generated linkages, even if those linkages differ from linkages in the EPA's most recent set of modeling (EPA 2016v2), that information provides further evidence, not less, in support of a conclusion that the State is required to proceed to Step 3 to further evaluate its emissions.

Therefore, based on the EPA's evaluation of the information submitted by TCEQ and based on the EPA 2016v2 modeling results for 2023, the EPA proposes to find that Texas is linked at Steps 1 and 2 and has an obligation to assess potential emissions reductions from sources or other emissions activity at Step 3 of the 4-Step framework.

4. Evaluation of Information Provided by TCEQ Regarding Step 3

At Step 3 of the 4-Step interstate transport framework, a state's emissions are further evaluated, considering multiple factors, including air quality and cost considerations, to determine what, if any, emissions significantly contribute to nonattainment or interfere with maintenance and, thus, must be eliminated under CAA section 110(a)(2)(D)(i)(I).

To effectively evaluate which emissions in the state should be deemed ''significant'' and therefore prohibited, states generally should prepare an accounting of sources and other emissions activity for relevant pollutants and assess potential additional emissions reduction opportunities and resulting downwind air quality improvements. The EPA has consistently applied this approach (*i.e.,* Step 3 of the 4-Step interstate transport framework) when identifying emissions contributions that the Agency has determined to be ''significant'' (contribution to nonattainment or interfere with maintenance) in each of its prior Federal, regional ozone transport rulemakings, and this interpretation of the statute has been upheld by the Supreme Court. *See EME Homer City,* 572 U.S. 489, 519 (2014). While the EPA has not directed states that they must conduct a Step 3 analysis in precisely the manner the EPA has done in its prior regional transport rulemakings, state implementation plans addressing the obligations in CAA section 110(a)(2)(D)(i)(I) must prohibit ''any source or other type of emissions activity within the State'' from emitting air pollutants which will contribute significantly to downwind air quality problems. Thus, states must complete something similar to the EPA's analysis (or an alternative approach to defining ''significance'' that comports with the statute's objectives) to determine whether and to what degree emissions from a state should be ''prohibited'' to eliminate emissions that will ''contribute significantly to nonattainment in, or interfere with maintenance of'' the NAAQS in any other state. TCEQ did not demonstrate such an analysis in their SIP submission. We therefore propose that TCEQ was required to analyze emissions from the sources and other emissions activity from within the State to determine whether its contributions were significant, and we propose to disapprove its submission because Texas failed to do so.

Instead, as noted in Section V.A of this action, TCEQ interpreted the Act's requirements as only requiring an

[107] These modeling results are consistent with the results of a prior round of 2023 modeling using the 2016v1 emissions platform which became available to the public in the fall of 2020 in the Revised CSAPR Update, as noted in Section I of this action. That modeling showed that Texas had a maximum contribution greater than 0.70 ppb to at least one nonattainment or maintenance-only receptor in 2023. These modeling results are included in the file ''Ozone Design Values And Contributions Revised CSAPR Update.xlsx'' in Docket No. EPA–HQ–OAR–2021–0663.

analysis of emission reductions where ''there is a persistent and consistent pattern of contribution on several days with elevated ozone.'' TCEQ asserted that it would make the determination of whether such pattern existed based on a weight-of-evidence approach that takes into consideration air quality factors such as: Current attainment status of the monitors, design value trends, the meteorological conditions that lead to high ozone formation at the monitor, the number of days with elevated observed ozone, back trajectories, Texas' relative contribution on modeled high ozone days, Texas' contribution as part of the collective interstate contribution to future modeled DVs, alternate contribution method analysis, and model sensitivity runs to reductions of Texas' emissions on receptors. However, TCEQ stated that it did not consider or analyze all factors for every monitor. Thus, different factors were analyzed for the receptors in different regions (Colorado, Arizona, and Southern California). The EPA has reviewed the different factors that TCEQ provided for each of the regions in the EPA Region 6 TSD, but we will provide a brief summary of the evaluation below. TCEQ also asserted that use of the 1 percent threshold as the ''sole'' definition of significant contribution for the 2015 ozone NAAQS is inappropriate. Based on the application of selected factors for each of the monitors to which TCEQ's modeling found that it was linked, TCEQ concluded that none of its contributions to any other states were significant.

As explained above, TCEQ has mischaracterized the EPA's interpretation of the CAA in stating that the EPA defines significant contribution ''solely'' using a 1 percent threshold. The EPA, like TCEQ, uses the 1 percent threshold to identify areas for further analysis. The difference is that the EPA in past analyses has examined potential emission reductions in linked upwind states and the air quality impacts at downwind receptors that would result from the implementation of those reductions to assess which contributions are ''significant.'' This interpretation of significant contribution, as discussed above, has been upheld by the Supreme Court and the D.C. Circuit.

As an initial matter, the EPA believes source apportionment modeling, as performed by the EPA and also by TCEQ, to determine which states are linked is an appropriate tool to identify impacts that are persistent enough to impact a downwind receptors ability to attain or maintain the standard. This approach is described in more detail above in Section II.B.4 of this action, but, in summary, averages the contributions from an upwind state for up to 10 days, which is preferred, (but a minimum 5 days) at a given receptor. Given the ozone standard is an average of the fourth high value from each of three years, the EPA technique, also used by Texas, is appropriate to identify impacts of sufficient persistence to impact a downwind receptor's ability to attain or maintain the standard.

The EPA reviewed TCEQ's evaluation of the current attainment status of the monitors and design value trends, and concludes, as described in more detail in the EPA Region 6 TSD, that the provided information does not support the large decreases in ozone levels that TCEQ's modeling projects will occur by 2023. The analysis for California and Colorado receptors provides evidence that TCEQ's photochemical modeling is overestimating the ozone reductions expected at these receptors between 2012 and 2023 and actually presents evidence that more nonattainment and/or maintenance receptors should have been identified.

The EPA also reviewed the trends in the number of high ozone days per year provided by TCEQ for Colorado and California. While this data supports that the number of ozone exceedance days is improving, neither the analysis of the number of high ozone days in Colorado or California provide any evidence to refute the TCEQ's photochemical modeling results that show these areas should be considered nonattainment and/or maintenance receptors. TCEQs modeling overestimates ozone reductions yet still shows Texas linked to receptors at both nonattainment and maintenance levels in 2023.

The TCEQ cited a conceptual model of ozone formation for areas in Southern California. TCEQ indicated that Southern California is isolated and transport into the basin is unlikely on a frequent basis, but this information does not refute the TCEQ's modeling. As discussed in Section III.B.3 of this action, photochemical modeling is the most sophisticated tool available to estimate future ozone levels and contributions to those modeled future ozone levels. Consideration of the different processes that affect primary and secondary pollutants at the regional scale in different locations is fundamental to understanding and assessing the effects of emissions on air quality concentrations. TCEQ's modeling showed transport at 10 monitors having contributions greater than 0.7 ppb on average for the 5–10 days used in the modeling analyses. Considering the form of the standard, this is a sufficient number of days to determine if an impact is persistent enough to impact an area's ability to attain or maintain the standard.

TCEQ used the National Oceanic and Atmospheric Administration (NOAA) HYSPLIT [108] model to produce back trajectories for all the monitored ozone exceedance days (2007–2016) for the five receptors in Colorado and 10 receptors in Southern California to evaluate how many of the back trajectories went through Texas. TCEQ also used data from these back trajectories to do an endpoint count analysis. We note that we have several concerns with how TCEQ performed the back trajectories including start time and heights, length (number of hours) of the back trajectory, inappropriate removal of some back trajectories based on start height, center-line height touch down, and trajectory center-line height when over Texas, and inappropriate counting of trajectories by not considering that the center-line represents the centerline of a much wider area of air parcels that could have reached the monitor/receptor. Due to these concerns, as discussed in more detail in the EPA Region 6 TSD, the EPA finds the results of TCEQ's back trajectory and endpoint analysis flawed (underestimates back trajectories that reach Texas) and do not provide evidence that refutes the TCEQ photochemical modeling analysis results.

We note that even valid back trajectories are of limited use as HYSPLIT simply estimates the path a parcel of air backward in hourly steps for a specified length of time. HYSPLIT estimates the central path in both the vertical and horizontal planes. The HYSPLIT central path represents the centerline with the understanding that there are areas on each side horizontally and vertically that also contribute to the concentrations at the end point. The horizontal and vertical areas that potentially contribute to concentrations at the endpoint (monitor) grow wider from the centerline the further back in time the trajectory goes. Therefore, a HYSPLIT centerline does not have to pass directly over emissions sources or emission source areas, but merely relatively near emission source areas for those areas, to contribute to concentrations at the trajectory endpoint. The EPA relies on back trajectory analysis as a corollary analysis along with observation-based meteorological wind fields at multiple heights to examine the general plausibility of the photochemical model

[108] *See* FN 34.

''linkages.'' Since the back trajectory calculations do not account for any air pollution formation, dispersion, transformation, or removal processes as influenced by emissions, chemistry, deposition, etc., the trajectories cannot be used to develop quantitative contributions. Therefore, back trajectories cannot be used to quantitatively evaluate the magnitude of the existing photochemical contributions from upwind states to downwind receptors. It is interesting to note that TCEQ's analysis of the back trajectories indicates that the 2012 meteorology used by TCEQ seemed to yield more back trajectories that reach Texas than most years for many of the Colorado monitors. This seems to be consistent with TCEQ identifying linkages to Colorado when the EPA's modeling of 2016 does not.

TCEQ performed an alternate contribution analysis for the ten California receptors and the five Colorado receptors using all days modeled in 2023 that had values over 70 ppb rather than focus on just the 5–10 highest values under the EPA's technique. Particularly for California, this meant many more days could be included in the average which had the effect of showing a smaller estimated contribution. We believe it is appropriate to focus on the highest values as these are the ones that ultimately will have to be reduced for the standard to be attained. As discussed in the EPA Region 6 TSD, the EPA's review of TCEQ's alternate contribution method analysis for California and Colorado receptors is that it does not provide substantial evidence that refutes the TCEQ's photochemical modeling analysis results, including the contribution analysis using the EPA's contribution methodology.

TCEQ provided an analysis of collective interstate contribution to the 2023 DV for the five Colorado and ten California receptors. The collective interstate contribution at tagged Colorado receptors ranges from 9.32% to 10.27%. The collective interstate contribution at tagged California receptors ranges from 3.2% to 4.58%. TCEQ argues that these are small percentages (Colorado and California) and not as high as the collective interstate contribution percentages the EPA calculated for monitors in Eastern States, which ranged from 17% to 67%. TCEQ also notes that a significant portion of the tagged Colorado monitors' 2023 modeled DVs is due to background emissions (sum of contributions from to biogenic, fires, and boundary conditions). For the California receptors TCEQ argues that these percentages are small compared to Intra-State contribution.

As an initial matter, the EPA is not solely relying on TCEQ's findings of linkages to Colorado and California but is also relying on its own findings of linkages to areas in the Midwest Region. As such, TCEQ's analysis of relative contributions to Colorado and California does not provide justification for not addressing downwind impacts. Nonetheless, EPA has found in the past that certain California receptors are so heavily impacted by local emissions, and total upwind contribution is so low, that those receptors may not be considered to be affected by interstate ozone transport. *See* 81 FR 15200 (Mar. 22, 2016). However, this is a narrow circumstance that does not apply in the vast majority of cases and has never been applied outside of California. EPA has previously found, for instance, that receptors in Colorado are heavily impacted by upwind-state contribution. *See* 82 FR 9155 (Feb. 3, 2017); 81 FR 71991 (Oct. 19, 2016). EPA need not draw any conclusions here regarding whether the California sites TCEQ identified should or should not be considered receptors for ozone-transport purposes. EPA affirms, contrary to TCEQ's suggestion, that the Colorado receptors TCEQ analyzed are impacted by upwind state contributions. However, the EPA's finding that Texas is linked to receptors in other states is based on still other linkages found in EPA's modeling to receptors in other states, which are clearly impacted by the collective contribution of multiple upwind states, including Texas. Under CAA section 110(a)(2)(D)(i)(I) downwind states are not obligated to reduce emissions on their own to resolve nonattainment or maintenance problems. Rather, states are obligated to eliminate their own significant contribution or interference with the ability of other states to attain or maintain the NAAQS.

TCEQ also performed photochemical modeling analysis using the Direct Decoupled Method (DDM) tool for receptors in Colorado. DDM provides a first derivative of the changes in ozone (linear relationship where the DDM value is the slope of the line for changes in ozone) resulting from changes in NO_X emissions from all Texas' NO_X emissions. The DDM modeling does show some response to Texas NO_X emissions but from the scale it is hard to discern the level of response but it appears to be in the 0–2 ppb range in general with some values in the 0.2 –2 ppb range for modeled values over 60 ppb. Since the modeling has underprediction and underestimation issues, these values could be higher. Not surprisingly, the DDM tool shows that monitors in Colorado are much more responsive to intra-state reductions than reductions in Texas. That said, the results of the DDM tool showing only a relatively small response to reductions is not inconsistent with the finding that Texas emissions contribute significantly to elevated readings in Colorado. As has been discussed elsewhere, the EPA believes a contribution of 1 percent of the standard is an appropriate threshold such that further analysis is warranted.

Overall, these additional analyses performed by TCEQ do not provide sufficient evidence to refute the modeling results that TCEQ's modeling indicates downwind nonattainment and/or maintenance receptors in Colorado and Southern California are impacted by Texas emissions and Texas' contribution is 0.7 ppb or greater.[109] In fact, the monitored ozone design value trends provide evidence that future year modeled ozone levels are underestimated by TCEQ's modeling and there are likely more receptors that should have been identified with additional potential linkages. Although Texas asserted that its additional air quality factor analysis is a permissible way to interpret which contributions are ''significant'' because that analysis examines whether there was a ''persistent and consistent pattern of contribution on several days with elevated ozone'' we find that such pattern is already established by a modeled linkage at Step 2.

In addition, EPA 2016v2 modeling using 2016 base year meteorology indicates linkages from Texas to receptors in the Midwest Region but does not indicate impacts from Texas emissions on the Colorado and other western receptors identified by TCEQ. With a different base period such as TCEQ's 2012 base period meteorology and the EPA's 2016 base period meteorology, it is not uncommon that the potential downwind nonattainment or maintenance receptors could change. These differing results about receptors and linkages can be affected by the varying meteorology from year to year and the selection of different base years, but we do not think the differing results mean that the modeling or the EPA methodology for identifying receptors or linkages is inherently unreliable. Rather, these separate modeling runs indicated (1) that there were receptors that would

[109] TCEQ also identified a monitor in Cochise County, Arizona (ID 40038001), but the monitor's recent DVs are below the NAAQS. From AQS, the 2014–2016 and 2015–2017 DVs are each 65 ppb; 2016–2018, 2017–2019, and 2018–2020 DVs are 66 ppb; and preliminary 2019–2021 DV is 66 ppb.

struggle with nonattainment or maintenance in the future, and (2) that Texas was linked to some set of these receptors, even if the receptors and linkages differed from one another in their specifics (*e.g.,* a different set of receptors were identified to have nonattainment or maintenance problems, or Texas was linked to different receptors in one modeling run versus another). We think this common result indicates that Texas's emissions were substantial enough to generate linkages at Steps 1 and 2 to some set of downwind receptors, under varying assumptions and meteorological conditions, even if the precise set of linkages changed between modeling runs.

In sum, the EPA's more recent and robust 2016 base year modeling platform indicates that Texas is linked to several receptors in the Midwest Region as does the EPA's earlier 2011 base year modeling. TCEQ's 2012 base case modeling showed linkages to states in the west. As discussed, the EPA does not find the additional weight of evidence evaluations conducted by TCEQ provide compelling reasons to discount the impacts indicated in Colorado and California by the TCEQ modeling. In fact, we think TCEQ's modeling likely underestimates these issues. We therefore propose that Texas was required to analyze emissions from the sources and other emissions activity from within the State to determine whether its contributions were significant, and we propose to disapprove its submission because Texas failed to do so.

5. Evaluation of Information Provided by TCEQ Regarding Step 4

Step 4 of the 4-Step interstate transport framework calls for development of permanent and federally enforceable control strategies to achieve the emissions reductions determined to be necessary at Step 3 to eliminate significant contribution to nonattainment or interference with maintenance of the NAAQS. Texas indicated that because a number of counties in its state had been designated nonattainment for the 2015 ozone NAAQS, there could be attainment demonstration and potential controls contemplated in association with those nonattainment designations.[110] However, the State's interstate transport submission did not revise its SIP to identify any specific emission reductions, nor did it include a revision to its SIP to ensure any such reductions were permanent and enforceable. The other control measures identified in TCEQ's submission are, as noted by TCEQ, already adopted and implemented measures and do not contain an evaluation of additional emission control opportunities (or establish that no additional controls are required). As a result, the EPA proposes to disapprove TCEQ's submittal on the separate, additional basis that the Texas has not included permanent and enforceable emissions reductions in its SIP as necessary to meet the obligations of CAA section 110(a)(2)(d)(i)(I).

6. Conclusion

Based on the EPA's evaluation of TCEQ's SIP submission, the EPA is proposing to find that the Texas August 17, 2018, SIP submission pertaining to interstate transport of air pollution does not meet the State's interstate transport obligations, because it fails to contain the necessary provisions to eliminate emissions that will contribute significantly to nonattainment or interfere with maintenance of the 2015 ozone NAAQS in any other state.

VI. Proposed Action

We are proposing to disapprove the SIP submissions from Arkansas, Louisiana, Oklahoma, and Texas pertaining to interstate transport of air pollution which will significantly contribute to nonattainment or interfere with maintenance of the 2015 ozone NAAQS in other states. Under CAA section 110(c)(1), the disapprovals would establish a 2-year deadline for the EPA to promulgate FIPs for these states to address the CAA section 110(a)(2)(D)(i)(I) interstate transport requirements pertaining to significant contribution to nonattainment and interference with maintenance of the 2015 ozone NAAQS in other states, unless the EPA approves SIPs that meet these requirements. Disapproval does not start a mandatory sanctions clock for Arkansas, Louisiana, Oklahoma, or Texas.

VII. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review

This action is not a significant regulatory action and was therefore not submitted to the Office of Management and Budget for review

B. Paperwork Reduction Act (PRA)

This proposed action does not impose an information collection burden under the PRA because it does not contain any information collection activities

C. Regulatory Flexibility Act (RFA)

I certify that this action will not have a significant economic impact on a substantial number of small entities under the RFA. This action merely proposes to disapprove a SIP submission as not meeting the CAA.

D. Unfunded Mandates Reform Act (UMRA)

This action does not contain any unfunded mandate as described in UMRA, 2 U.S.C. 1531–1538, and does not significantly or uniquely affect small governments. The action imposes no enforceable duty on any state, local or tribal governments or the private sector.

E. Executive Order 13132: Federalism

This action does not have federalism implications. It will not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government.

F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments

This proposed action disapproving the portion of Oklahoma's SIP submission addressing the State's interstate transport obligations under CAA section 110(a)(2)(D)(i)(I) for the 2015 ozone NAAQS will apply to certain areas of Indian country as discussed in Section IV.C of this action, and therefore, has tribal implications as specified in E.O. 13175 (65 FR 67249, November 9, 2000). However, this proposed action will neither impose substantial direct compliance costs on federally recognized tribal governments, nor preempt tribal law. This proposed action will not impose substantial direct compliance costs on federally recognized tribal governments because no actions will be required of tribal governments. This proposed action will

[110] Pointing to anticipated upcoming emission reductions, even if they were not included in the analysis at Steps 1 and 2, is not sufficient as a Step 3 analysis, for the reasons discussed in Section V.B.4 of this action. In this section, we explain that to the extent such anticipated reductions are not included in the SIP and rendered permanent and enforceable, reliance on such anticipated reductions is also insufficient at Step 4.

also not preempt tribal law as no Oklahoma tribe implements a regulatory program under the CAA, and thus does not have applicable or related tribal laws. Consistent with the EPA Policy on Consultation and Coordination with Indian Tribes (May 4, 2011), the EPA will offer consultation to tribal governments whose lands are located within the exterior boundaries of the State of Oklahoma that may be affected by this action.

G. Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks

The EPA interprets Executive Order 13045 as applying only to those regulatory actions that concern environmental health or safety risks that the EPA has reason to believe may disproportionately affect children, per the definition of ''covered regulatory action'' in section 2–202 of the Executive Order. This action is not subject to Executive Order 13045 because it merely proposes to disapprove a SIP submission as not meeting the CAA.

H. Executive Order 13211, Actions That Significantly Affect Energy Supply, Distribution or Use

This action is not subject to Executive Order 13211, because it is not a significant regulatory action under Executive Order 12866.

I. National Technology Transfer and Advancement Act

This rulemaking does not involve technical standards.

J. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations

The EPA believes the human health or environmental risk addressed by this action will not have potential disproportionately high and adverse human health or environmental effects on minority, low-income or indigenous populations. This action merely proposes to disapprove a SIP submission as not meeting the CAA.

K. CAA Section 307(b)(1)

Section 307(b)(1) of the CAA governs judicial review of final actions by the EPA. This section provides, in part, that petitions for review must be filed in the D.C. Circuit: (i) When the agency action consists of ''nationally applicable regulations promulgated, or final actions taken, by the Administrator,'' or (ii) when such action is locally or regionally applicable, if ''such action is based on a determination of nationwide scope or effect and if in taking such action the Administrator finds and publishes that such action is based on such a determination.'' For locally or regionally applicable final actions, the CAA reserves to the EPA complete discretion whether to invoke the exception in (ii).[111]

The EPA anticipates that this proposed rulemaking, if finalized, would be ''nationally applicable'' within the meaning of CAA section 307(b)(1) because it would take final action on SIP submittals for the 2015 ozone NAAQS for four states, which are located in three different Federal judicial circuits. It would apply uniform, nationwide analytical methods, policy judgments, and interpretation with respect to the same CAA obligations, *i.e.,* implementation of interstate transport requirements under CAA section 110(a)(2)(D)(i)(I) for the 2015 ozone NAAQS for states across the country, and final action would be based on this common core of determinations, described in further detail below.

If the EPA takes final action on this proposed rulemaking[, in the alternative,] the Administrator intends to exercise the complete discretion afforded to him under the CAA to make and publish a finding that the final action (to the extent a court finds the action to be locally or regionally applicable) is based on a determination of ''nationwide scope or effect'' within the meaning of CAA section 307(b)(1). Through this rulemaking action (in conjunction with a series of related actions on other SIP submissions for the same CAA obligations), the EPA interprets and applies section 110(a)(2)(d)(i)(I) of the CAA for the 2015 ozone NAAQS based on a common core of nationwide policy judgments and technical analysis concerning the interstate transport of pollutants throughout the continental U.S. In particular, the EPA is applying here (and in other proposed actions related to the same obligations) the same, nationally consistent 4-Step framework for assessing interstate transport obligations for the 2015 ozone NAAQS. The EPA relies on a single set of updated, 2016 base year photochemical grid modeling results of the year 2023 as the primary basis for its assessment of air quality conditions and contributions at Steps 1 and 2 of the 4-Step framework. Further, the EPA proposes to determine and apply a set of nationally consistent policy judgments to apply the 4-Step framework. The EPA has selected a nationally uniform analytic year (2023) for this analysis and is applying a nationally uniform approach to nonattainment and maintenance receptors and a nationally uniform approach to contribution threshold analysis.[112] For these reasons, the Administrator intends, if this proposed action is finalized, to exercise the complete discretion afforded to him under the CAA to make and publish a finding that this action is based on one or more determinations of nationwide scope or effect for purposes of CAA section 307(b)(1).[113]

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Ozone.

Authority: 42 U.S.C. 7401 *et seq.*

Dated: February 1, 2022.

Earthea Nance,

Regional Administrator, Region 6.

[FR Doc. 2022–02961 Filed 2–18–22; 8:45 am]

BILLING CODE 6560–50–P

[111] In deciding whether to invoke the exception by making and publishing a finding that an action is based on a determination of nationwide scope or effect, the Administrator takes into account a number of policy considerations, including his judgment balancing the benefit of obtaining the D.C. Circuit's authoritative centralized review versus allowing development of the issue in other contexts and the best use of agency resources.

[112] A finding of nationwide scope or effect is also appropriate for actions that cover states in multiple judicial circuits. In the report on the 1977 Amendments that revised section 307(b)(1) of the CAA, Congress noted that the Administrator's determination that the ''nationwide scope or effect'' exception applies would be appropriate for any action that has a scope or effect beyond a single judicial circuit. See H.R. Rep. No. 95–294 at 323, 324, reprinted in 1977 U.S.C.C.A.N. 1402–03.

[113] The EPA may take a consolidated, single final action on all of the proposed SIP disapproval actions with respect to obligations under CAA section 110(a)(2)(D)(i)(I) for the 2015 ozone NAAQS. Should the EPA take a single final action on all such disapprovals, this action would be nationally applicable, and the EPA would also anticipate, in the alternative, making and publishing a finding that such final action is based on a determination of nationwide scope or effect.

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Part III

Environmental Protection Agency

40 CFR Part 52
Air Plan Disapproval; Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin; Air Plan Disapproval; Region 5 Interstate Transport of Air Pollution for the 2015 8-Hour Ozone National Ambient Air Quality Standards; Proposed Rule

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA–R05–OAR–2022–0006; EPA–HQ–OAR–2021–0663; FRL–9431–01–R5]

Air Plan Disapproval; Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin; Air Plan Disapproval; Region 5 Interstate Transport of Air Pollution for the 2015 8-Hour Ozone National Ambient Air Quality Standards

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: Pursuant to the Federal Clean Air Act (CAA or the Act), the Environmental Protection Agency (EPA) is proposing to disapprove State Implementation Plan (SIP) submittals from Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin regarding interstate transport for the 2015 ozone national ambient air quality standards (NAAQS). The ''good neighbor'' or ''interstate transport'' provision requires that each state's SIP contain adequate provisions to prohibit emissions from within the state from significantly contributing to nonattainment or interfering with maintenance of the NAAQS in other states. This requirement is part of the broader set of ''infrastructure'' requirements, which are designed to ensure that the structural components of each state's air quality management program are adequate to meet the state's responsibilities under the CAA. This disapproval, if finalized, will establish a 2-year deadline for EPA to promulgate a Federal Implementation Plan (FIP) to address the relevant interstate transport requirements, unless EPA approves a subsequent SIP submittal that meets these requirements. Disapproval does not start a mandatory sanctions clock.

DATES: *Comments:* Written comments must be received on or before April 25, 2022.

ADDRESSES: You may send comments, identified as Docket No. EPA–R05–OAR–2022–0006, by any of the following methods: Federal Rulemaking Portal at *https://www.regulations.gov* following the online instructions for submitting comments or via email to *arra.sarah@epa.gov.* Include Docket ID No. EPA–R05–OAR–2022–0006 in the subject line of the message.

Instructions: All submissions received must include the Docket ID No. for this rulemaking. Comments received may be posted without change to *https://www.regulations.gov/,* including any personal information provided. For detailed instructions on sending comments and additional information on the rulemaking process, see the ''Public Participation'' heading of the **SUPPLEMENTARY INFORMATION** section of this document. Out of an abundance of caution for members of the public and our staff, the EPA Docket Center and Reading Room are open to the public by appointment only to reduce the risk of transmitting COVID–19. Our Docket Center staff also continues to provide remote customer service via email, phone, and webform. For further information on EPA Docket Center services and the current status, please visit us online at *https://www.epa.gov/dockets.*

FOR FURTHER INFORMATION CONTACT: Olivia Davidson, Environmental Scientist, Attainment Planning and Maintenance Section, Air Programs Branch (AR–18J), Environmental Protection Agency, Region 5, 77 West Jackson Boulevard, Chicago, Illinois 60604, (312) 886–0266, *davidson.olivia@epa.gov.* The EPA Region 5 office is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding Federal holidays and facility closures due to COVID–19.

SUPPLEMENTARY INFORMATION:

Public Participation: Submit your comments, identified by Docket ID No. EPA–R05–OAR–2022–0006, at *https://www.regulations.gov* (our preferred method), or the other methods identified in the **ADDRESSES** section. Once submitted, comments cannot be edited or removed from the docket. EPA may publish any comment received to its public docket. Do not submit to EPA's docket at *https://www.regulations.gov* any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. EPA will generally not consider comments or comment contents located outside of the primary submission (*i.e.,* on the web, cloud, or other file sharing system).

There are two dockets supporting this action, EPA–R05–OAR–2022–0006 and EPA–HQ–OAR–2021–0663. Docket No. EPA–R05–OAR–2022–0006 contains information specific to Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin, including the notice of proposed rulemaking. Docket No. EPA–HQ–OAR–2021–0663 contains additional modeling files, emissions inventory files, technical support documents, and other relevant supporting documentation regarding interstate transport of emissions for the 2015 ozone NAAQS which are being used to support this action. All comments regarding information in either of these dockets are to be made in Docket No. EPA–R05–OAR–2022–0006. For additional submission methods, please contact Olivia Davidson, (312) 886–0266, *davidson.olivia@epa.gov.* For the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit *https://www.epa.gov/dockets/commenting-epa-dockets.* Due to public health concerns related to COVID–19, the EPA Docket Center and Reading Room are open to the public by appointment only. Our Docket Center staff also continues to provide remote customer service via email, phone, and webform. For further information and updates on EPA Docket Center services, please visit us online at *https://www.epa.gov/dockets.*

EPA continues to carefully and continuously monitor information from the Centers for Disease Control and Prevention (CDC), local area health departments, and our Federal partners so that we can respond rapidly as conditions change regarding COVID–19. The index to the docket for this action, Docket No. EPA–R05–OAR–2022–0006, is available electronically at *www.regulations.gov.* While all documents in the docket are listed in the index, some information may not be publicly available due to docket file size restrictions or content (*e.g.,* CBI).

Throughout this document, ''we,'' ''us,'' and ''our'' means EPA.

I. Background

A. Description of Statutory Background

On October 1, 2015, EPA promulgated a revision to the ozone NAAQS (2015 ozone NAAQS), lowering the level of both the primary and secondary standards to 0.070 parts per million (ppm).[1] Section 110(a)(1) of the CAA requires states to submit, within 3 years after promulgation of a new or revised standard, SIP submissions meeting the applicable requirements of section 110(a)(2).[2] One of these applicable

[1] National Ambient Air Quality Standards for Ozone, Final Rule, 80 FR 65292 (October 26, 2015). Although the level of the standard is specified in the units of ppm, ozone concentrations are also described in parts per billion (ppb). For example, 0.070 ppm is equivalent to 70 ppb.

[2] SIP revisions that are intended to meet the applicable requirements of section 110(a)(1) and (2) of the CAA are often referred to as infrastructure

requirements is found in CAA section 110(a)(2)(D)(i)(I), otherwise known as the ''interstate transport'' or ''good neighbor'' provision, which generally requires SIPs to contain adequate provisions to prohibit in-state emissions activities from having certain adverse air quality effects on other states due to interstate transport of pollution. There are two so-called ''prongs'' within CAA section 110(a)(2)(D)(i)(I). A SIP for a new or revised NAAQS must contain adequate provisions prohibiting any source or other type of emissions activity within the state from emitting air pollutants in amounts that will significantly contribute to nonattainment of the NAAQS in another state (prong 1) or interfere with maintenance of the NAAQS in another state (prong 2). EPA and states must give independent significance to prong 1 and prong 2 when evaluating downwind air quality problems under CAA section 110(a)(2)(D)(i)(I).[3]

B. Description of EPA's Four Step Interstate Transport Regulatory Process

EPA is using the 4-step interstate transport framework (or 4-step framework) to evaluate the states' SIP submittals addressing the interstate transport provision for the 2015 ozone NAAQS. EPA has addressed the interstate transport requirements of CAA section 110(a)(2)(D)(i)(I) with respect to prior ozone NAAQS in several regional regulatory actions, including the Cross-State Air Pollution Rule (CSAPR), which addressed interstate transport with respect to the 1997 ozone NAAQS as well as the 1997 and 2006 fine particulate matter standards,[4] and the Cross-State Air Pollution Rule Update (CSAPR Update) [5] and the Revised CSAPR Update, both of which addressed the 2008 ozone NAAQS.[6]

Through the development and implementation of the CSAPR rulemakings and prior regional rulemakings pursuant to the interstate transport provision,[7] EPA, working in partnership with states, developed the following 4-step interstate transport framework to evaluate a state's obligations to eliminate interstate transport emissions under the interstate transport provision for the ozone NAAQS: (1) Identify monitoring sites that are projected to have problems attaining and/or maintaining the NAAQS (*i.e.,* nonattainment and/or maintenance receptors); (2) identify states that impact those air quality problems in other (*i.e.,* downwind) states sufficiently such that the states are considered ''linked'' and therefore warrant further review and analysis; (3) identify the emissions reductions necessary (if any), applying a multifactor analysis, to eliminate each linked upwind state's significant contribution to nonattainment or interference with maintenance of the NAAQS at the locations identified in Step 1; and (4) adopt permanent and enforceable measures needed to achieve those emissions reductions.

C. Background on EPA's Ozone Transport Modeling Information

In general, EPA has performed nationwide air quality modeling to project ozone design values which are used in combination with measured data to identify nonattainment and maintenance receptors. To quantify the contribution of emissions from specific upwind states on 2023 ozone design values for the identified downwind nonattainment and maintenance receptors, EPA performed nationwide, state-level ozone source apportionment modeling for 2023. The source apportionment modeling provided contributions to ozone at receptors from precursor emissions of anthropogenic nitrogen oxides (NO_X) and volatile organic compounds (VOCs) in individual upwind states.

EPA has released several documents containing projected ozone design values, contributions, and information relevant to evaluating interstate transport with respect to the 2015 ozone NAAQS. First, on January 6, 2017, EPA published a notice of data availability (NODA) in which we requested comment on preliminary interstate ozone transport data including projected ozone design values and interstate contributions for 2023 using a 2011 base year platform.[8] In the NODA, EPA used the year 2023 as the analytic year for this preliminary modeling because that year aligns with the expected attainment year for Moderate ozone nonattainment areas for the 2015 ozone NAAQS.[9] On October 27, 2017, we released a memorandum (October 2017 memorandum) containing updated 2011 platform-based modeling data for 2023, which incorporated changes made in response to comments on the NODA, and noted that the modeling may be useful for states developing SIPs to address interstate transport obligations for the 2008 ozone NAAQS.[10] On March 27, 2018, we issued a memorandum (March 2018 memorandum) noting that the same 2023 modeling data released in the October 2017 memorandum could also be useful for identifying potential downwind air quality problems with respect to the 2015 ozone NAAQS at Step 1 of the 4-step interstate transport framework.[11] The March 2018 memorandum also included the then newly available contribution modeling data for 2023 to assist states in evaluating their impact on potential downwind air quality problems for the 2015 ozone NAAQS under Step 2 of the 4-step interstate transport framework.[12] EPA subsequently issued two more memoranda in August and October 2018, providing additional information to states developing interstate transport SIP submissions for the 2015 ozone NAAQS concerning, respectively,

SIPs and the applicable elements under section 110(a)(2) are referred to as infrastructure requirements.

[3] *See North Carolina* v. *EPA,* 531 F.3d 896, 909–11 (D.C. Cir. 2008).

[4] *See* Federal Implementation Plans: Interstate Transport of Fine Particulate Matter and Ozone and Correction of SIP Approvals, 76 FR 48208 (Aug. 8, 2011).

[5] Cross-State Air Pollution Rule Update for the 2008 Ozone NAAQS, 81 FR 74504 (Oct. 26, 2016).

[6] In 2019, the D.C. Circuit Court of Appeals remanded the CSAPR Update to the extent it failed to require upwind states to eliminate their significant contribution by the next applicable attainment date by which downwind states must come into compliance with the NAAQS, as established under CAA section 181(a). *Wisconsin* v. *EPA,* 938 F.3d 303, 313 (D.C. Cir. 2019). The Revised CSAPR Update for the 2008 Ozone NAAQS, 86 FR 23054 (April 30, 2021), responded to the remand of the CSAPR Update in *Wisconsin* and the vacatur of a separate rule, the ''CSAPR Close-Out,'' 83 FR 65878 (December 21, 2018), in *New York* v. *EPA,* 781 F. App'x. 4 (D.C. Cir. 2019).

[7] In addition to the CSAPR rulemakings, other regional rulemakings addressing ozone transport include the ''NO_X SIP Call,'' 63 FR 57356 (October 27, 1998) and the ''Clean Air Interstate Rule'' (CAIR), 70 FR 25162 (May 12, 2005).

[8] *See* Notice of Availability of the Environmental Protection Agency's Preliminary Interstate Ozone Transport Modeling Data for the 2015 ozone National Ambient Air Quality Standard (NAAQS), 82 FR 1733 (January 6, 2017).

[9] 82 FR at 1735.

[10] *See* Information on the Interstate Transport State Implementation Plan Submissions for the 2008 Ozone National Ambient Air Quality Standards under Clean Air Act Section 110(a)(2)(D)(i)(I), October 27, 2017, available in docket EPA–HQ–OAR–2021–0663 or at *https://www.epa.gov/interstate-air-pollution-transport/interstate-air-pollution-transport-memos-and-notices.*

[11] *See* Information on the Interstate Transport State Implementation Plan Submissions for the 2015 Ozone National Ambient Air Quality Standards under Clean Air Act Section 110(a)(2)(D)(i)(I), March 27, 2018, available in docket EPA–HQ–OAR–2021–0663 or at *https://www.epa.gov/interstate-air-pollution-transport/interstate-air-pollution-transport-memos-and-notices.*

[12] The March 2018 memorandum, however, provided, ''While the information in this memorandum and the associated air quality analysis data could be used to inform the development of these SIPs, the information is not a final determination regarding states' obligations under the good neighbor provision. Any such determination would be made through notice-and-comment rulemaking.''

potential contribution thresholds that may be appropriate to apply in Step 2 of the 4-step interstate transport framework, and considerations for identifying downwind areas that may have problems maintaining the standard at Step 1 of the 4-step interstate transport framework.[13]

Since the release of the modeling data shared in the March 2018 memorandum, EPA has performed modeling using a 2016-based emissions modeling platform (*i.e.,* 2016v1) This emissions platform was developed under the EPA/Multi-Jurisdictional Organization (MJO)/state collaborative project.[14] This collaborative project was a multi-year joint effort by EPA, MJOs, and states to develop a new, more recent emissions platform for use by EPA and states in regulatory modeling as an improvement over the dated 2011-based platform that EPA had used to project ozone design values and contribution data provided in the 2017 and 2018 memoranda. EPA used the 2016v1 emissions to project ozone Design values and contributions for 2023. On October 30, 2020, in the Notice of Proposed Rulemaking for the Revised CSAPR Update, EPA released and accepted public comment on 2023 modeling that used the 2016v1 emissions platform.[15] *See* 85 FR 68964, 68981. Although the Revised CSAPR Update addressed transport for the 2008 ozone NAAQS, the projected design values and contributions from the 2016v1 platform are also useful for identifying downwind ozone problems and linkages with respect to the 2015 ozone NAAQS.[16]

Following the final Revised CSAPR Update, EPA made further updates to the 2016 emissions platform to include mobile emissions from EPA's Motor Vehicle Emission Simulator MOVES3 model[17] and updated emissions projections for electric generating units (EGUs) that reflect the emissions reductions from the Revised CSAPR Update, recent information on plant closures, and other sector trends. The construct of the updated emissions platform, 2016v2, is described in the emissions modeling technical support document (TSD) for this proposed rule.[18]

EPA's latest projections of the baseline EGU emissions uses the version 6—Summer 2021 Reference Case of the Integrated Planning Model (IPM).[19] IPM is a multi-regional, dynamic, and deterministic linear programming model of the U.S. electric power sector. The model provides forecasts of least cost capacity expansion, electricity dispatch, and emission control strategies, while meeting energy demand, environmental, transmission, dispatch, and reliability constraints.

The IPM version 6—Summer 2021 Reference Case incorporated recent updates through the Summer of 2021 to account for updated Federal and State environmental regulations for EGUs. This projected base case accounts for the effects of the finalized Mercury and Air Toxics Standards rule (MATS), CSAPR, the CSAPR Update, the Revised CSAPR Update, New Source Review settlements, the final Effluent Limitation Guidelines (ELG) Rule, the Coal Combustion Residual (CCR) Rule, and other on-the-books Federal and State rules (including renewable energy tax credit extensions from the Consolidated Appropriations Act of 2021) through early 2021 impacting sulfur dioxide (SO_2), NO_X, directly emitted particulate matter, carbon dioxide, and power plant operations. It also includes final actions EPA has taken to implement the Regional Haze Rule and Best Available Retrofit Technology (BART) requirements. Further, the EPA Platform v6 uses demand projections from the Energy Information Agency's (EIA) Annual Energy Outlook (AEO) 2020.

The IPM version 6—Summer 2021 Reference Case uses the National Electric Energy Data System (NEEDS) v6 database as its source for data on all existing and planned-committed units. Units are removed from the NEEDS inventory only if a high degree of certainty could be assigned to future implementation of the announced future closure or retirement. The available retirement-related information was reviewed for each unit, and the following rules are applied to remove:

(i) Units that are listed as retired in the December 2020 EIA Form 860M

(ii) Units that have a planned retirement year prior to June 30, 2023 in the December 2020 EIA Form 860M

(iii) Units that have been cleared by a regional transmission operator (RTO) or independent system operator (ISO) to retire before 2023, or whose RTO/ISO clearance to retire is contingent on actions that can be completed before 2023

(iv) Units that have committed specifically to retire before 2023 under Federal or state enforcement actions or regulatory requirements

(v) And finally, units for which a retirement announcement can be corroborated by other available information. Units required to retire pursuant to enforcement actions or state rules on July 1, 2023 or later are retained in NEEDS v6.

Retirements or closures taking place on or after July 1, 2023 are captured as constraints on those units in the IPM modeling, and the units are retired in future year projections per the terms of the related requirements. Any retirements excluded from the NEEDS v6 inventory can be viewed in the NEEDS spreadsheet.[20]

As highlighted in previous rulemakings, the IPM documentation, and EPA's Power Sector Modeling website, EPA's goal is to explain and document the use of IPM in a transparent and publicly accessible manner, while also providing for concurrent channels for improving the model's assumptions and representation by soliciting constructive feedback to improve the model. This includes making all inputs and assumptions to the model, output files from the model, and IPM feedback form publicly available on EPA's website.

EPA performed air quality modeling of the 2016v2 emissions using the most recent public release version of the Comprehensive Air-quality Model with extensions (CAMx) photochemical modeling, version 7.10.[21] EPA now proposes to primarily rely on modeling

[13] *See* Analysis of Contribution Thresholds for Use in Clean Air Act Section 110(a)(2)(D)(i)(I) Interstate Transport State Implementation Plan Submissions for the 2015 Ozone National Ambient Air Quality Standards, August 31, 2018 (''August 2018 memorandum''), and Considerations for Identifying Maintenance Receptors for Use in Clean Air Act Section 110(a)(2)(D)(i)(I) Interstate Transport State Implementation Plan Submissions for the 2015 Ozone National Ambient Air Quality Standards, October 19, 2018, available in docket EPA–HQ–OAR–2021–0663 or at *https://www.epa.gov/airmarkets/memo-and-supplemental-information-regarding-interstate-transport-sips-2015-ozone-naaqs*.

[14] The results of this modeling, as well as the underlying modeling files, are included in docket ID No. EPA–HQ–OAR–2021–0663.

[15] *See* 85 FR 68964, 68981.

[16] *See* the Air Quality Modeling Technical Support Document for the Final Revised Cross-State Air Pollution Rule Update, included in the Headquarters docket ID No. EPA–HQ–OAR–2021–0663.

[17] Additional details and documentation related to the MOVES3 model can be found at *https://www.epa.gov/moves/latest-version-motor-vehicle-emission-simulator-moves*.

[18] See Technical Support Document (TSD) Preparation of Emissions Inventories for the 2016v2 North American Emissions Modeling Platform included in the Headquarters docket ID No. EPA–HQ–OAR–2021–0663.

[19] Detailed information and documentation of EPA's Base Case, including all the underlying assumptions, data sources, and architecture parameters can be found on EPA's website at: *https://www.epa.gov/airmarkets/epas-power-sector-modeling-platform-v6-using-ipm-summer-2021-reference-case*.

[20] The ''Capacity Dropped'' and the ''Retired Through 2023'' worksheets in NEEDS lists all units that are removed from the NEEDS v6 inventory—NEEDS v6 Summer 2021 Reference Case. This data can be found on EPA's website at: *https://www.epa.gov/airmarkets/national-electric-energy-data-system-needs-v6*.

[21] Ramboll Environment and Health, January 2021, *www.camx.com*.

based on the updated and newly available 2016v2 emissions platform in evaluating these submissions with respect to Steps 1 and 2 of the 4-step interstate transport framework and generally referenced within this action as 2016v2 modeling for 2023. By using the updated modeling results, EPA is using the most current and technically appropriate information for this proposed rulemaking. Section III of this action and the Air Quality Modeling TSD for 2015 Ozone NAAQS Transport SIP Proposed Actions, included in Docket ID No. EPA–HQ–OAR–2021–0663 for this proposal, contain additional detail on EPA's 2016v2 modeling. In this action, EPA is accepting public comment on this updated 2023 modeling, which uses a 2016v2 emissions platform. Comments on EPA's air quality modeling should be submitted in the Regional docket for this action, docket ID No. EPA–R05–OAR–2022–0006. Comments are not being accepted in docket ID No. EPA–HQ–OAR–2021–0663.

States may have chosen to rely on the results of EPA modeling and/or alternative modeling performed by states or MJOs to evaluate downwind air quality problems and contributions as part of their submissions. As most Region 5 states have done so, in Sections III.A, III.B, III.C, III.D, and III.E, we evaluate how Region 5 states used air quality modeling information in their submissions.

D. EPA's Approach to Evaluating Interstate Transport SIPs for the 2015 Ozone NAAQS

EPA proposes to apply a consistent set of policy judgments across all states for purposes of evaluating interstate transport obligations and the approvability of interstate transport SIP submittals for the 2015 ozone NAAQS. These policy judgments reflect consistency with relevant case law and past agency practice as reflected in the CSAPR and related rulemakings. Nationwide consistency in approach is particularly important in the context of interstate ozone transport, which is a regional-scale pollution problem involving many smaller contributors. Effective policy solutions to the problem of interstate ozone transport going back to the NOx SIP Call have necessitated the application of a uniform framework of policy judgments to ensure an ''efficient and equitable'' approach. *See EME Homer City,* 572 U.S. 489, 519 (2014).

In the March, August, and October 2018 memoranda, EPA recognized that states may be able to establish alternative approaches to addressing their interstate transport obligations for the 2015 ozone NAAQS that vary from a nationally uniform framework. EPA emphasized in these memoranda, however, that such alternative approaches must be technically justified and appropriate in light of the facts and circumstances of each particular state's submittal. In general, EPA continues to believe that deviation from a nationally consistent approach to ozone transport must be substantially justified and have a well-documented technical basis that is consistent with relevant case law. Where states submitted SIPs that rely on any potential ''flexibilities'' as may have been identified or suggested in the past, EPA will evaluate whether the state adequately justified the technical and legal basis for doing so.

EPA notes that certain concepts included in an attachment to the March 2018 memorandum require unique consideration, and these ideas do not constitute agency guidance with respect to transport obligations for the 2015 ozone NAAQS. Attachment A to the March 2018 memorandum identified a ''Preliminary List of Potential Flexibilities'' that could potentially inform SIP development.[22] However, EPA made clear in that Attachment that the list of ideas were not suggestions endorsed by the Agency but rather ''comments provided in various forums'' on which EPA sought ''feedback from interested stakeholders.'' [23] Further, Attachment A stated, ''EPA is not at this time making any determination that the ideas discussed below are consistent with the requirements of the CAA, nor are we specifically recommending that states use these approaches.'' [24] Attachment A to the March 2018 memorandum, therefore, does not constitute agency guidance, but was intended to generate further discussion around potential approaches to addressing ozone transport among interested stakeholders. To the extent states sought to develop or rely on these ideas in support of their SIP submittals, EPA will thoroughly review the technical and legal justifications for doing so.

The remainder of this section describes EPA's proposed framework with respect to analytic year, definition of nonattainment and maintenance receptors, selection of contribution threshold, and multifactor control strategy assessment.

[22] *March 2018 memorandum, Attachment A.*

[23] *Id.* at A–1.

[24] *Id.*

1. Selection of Analytic Year

In general, the states and EPA must implement the interstate transport provision in a manner ''consistent with the provisions of [title I of the CAA.]'' CAA section 110(a)(2)(D)(i). This requires, among other things, that these obligations are addressed consistently with the timeframes for downwind areas to meet their CAA obligations. With respect to ozone NAAQS, under CAA section 181(a), this means obligations must be addressed ''as expeditiously as practicable'' and no later than the schedule of attainment dates provided in CAA section 181(a)(1).[25] Several D.C. Circuit court decisions address the issue of the relevant analytic year for the purposes of evaluating ozone transport air-quality problems. On September 13, 2019, the D.C. Circuit issued a decision in *Wisconsin* v. *EPA,* remanding the CSAPR Update to the extent that it failed to require upwind states to eliminate their significant contribution by the next applicable attainment date by which downwind states must come into compliance with the NAAQS, as established under CAA section 181(a). 938 F.3d at 313.

On May 19, 2020, the D.C. Circuit issued a decision in *Maryland* v. *EPA* that cited the *Wisconsin* decision in holding that EPA must assess the impact of interstate transport on air quality at the next downwind attainment date, including Marginal area attainment dates, in evaluating the basis for EPA's denial of a petition under CAA section 126(b). *Maryland* v. *EPA,* 958 F.3d 1185, 1203–04 (D.C. Cir. 2020). The court noted that ''section 126(b) incorporates the Good Neighbor Provision,'' and, therefore, ''EPA must find a violation [of section 126] if an upwind source will significantly contribute to downwind nonattainment at the *next downwind attainment deadline*. Therefore, the agency must evaluate downwind air quality at that deadline, not at some later date.'' *Id.* at 1204 (emphasis added). EPA interprets the court's holding in *Maryland* as requiring the states and the Agency, under the good neighbor provision, to assess downwind air quality as expeditiously as practicable and no later than the next applicable attainment date,[26] which is

[25] For attainment dates for the 2015 ozone NAAQS, refer to CAA section 181(a), 40 CFR 51.1303, and Additional Air Quality Designations for the 2015 Ozone National Ambient Air Quality Standards, 83 FR 25776 (June 4, 2018, effective Aug. 3, 2018).

[26] We note that the court in *Maryland* did not have occasion to evaluate circumstances in which EPA may determine that an upwind linkage to a downwind air quality problem exists at steps 1 and

Continued

now the Moderate area attainment date under CAA section 181 for ozone nonattainment. The Moderate area attainment date for the 2015 ozone NAAQS is August 3, 2024.[27] EPA believes that 2023 is now the appropriate year for analysis of interstate transport obligations for the 2015 ozone NAAQS, because the 2023 ozone season is the last relevant ozone season during which achieved emissions reductions in linked upwind states could assist downwind states with meeting the August 3, 2024 Moderate area attainment date for the 2015 ozone NAAQS.

EPA recognizes that the attainment date for nonattainment areas classified as Marginal for the 2015 ozone NAAQS was August 3, 2021. Under the *Maryland* holding, any necessary emissions reductions to satisfy interstate transport obligations should have been implemented by no later than this date. At the time of the statutory deadline to submit interstate transport SIPs (October 1, 2018), many states relied upon EPA modeling of the year 2023, and no state provided an alternative analysis using a 2021 analytic year (or the prior 2020 ozone season). However, EPA must act on SIP submittals using the information available at the time it takes such action. In this circumstance, EPA does not believe it would be appropriate to evaluate states' obligations under CAA section 110(a)(2)(D)(i)(I) as of an attainment date that is wholly in the past, because the Agency interprets the interstate transport provision as forward looking. *See* 86 FR at 23074; *see also Wisconsin,* 938 F.3d at 322. Consequently, in this proposal EPA will use the analytical year of 2023 to evaluate each state's CAA section 110(a)(2)(D)(i)(I) SIP submission with respect to the 2015 ozone NAAQS.

2. Step 1 of the 4-Step Interstate Transport Framework

In Step 1, EPA identifies monitoring sites that are projected to have problems attaining and/or maintaining the NAAQS in the 2023 analytic year. Where EPA's analysis shows that a site does not fall under the definition of a nonattainment or maintenance receptor, that site is excluded from further analysis under EPA's 4-step interstate transport framework. For sites that are identified as a nonattainment or maintenance receptor in 2023, we proceed to the next step of our 4-step interstate transport framework by identifying the upwind state's contribution to those receptors.

EPA's approach to identifying ozone nonattainment and maintenance receptors in this action is consistent with the approach used in previous transport rulemakings. EPA's approach gives independent consideration to both the ''contribute significantly to nonattainment'' and the ''interfere with maintenance'' prongs of CAA section 110(a)(2)(D)(i)(I), consistent with the D.C. Circuit's direction in *North Carolina* v. *EPA*.[28]

For the purpose of this proposal, EPA identifies nonattainment receptors as those monitoring sites that are projected to have average design values that exceed the NAAQS and that are also measuring nonattainment based on the most recent monitored design values. This approach is consistent with prior transport rulemakings, such as the CSAPR Update, where EPA defined nonattainment receptors as those areas that both currently measure nonattainment and that EPA projects will be in nonattainment in the future analytic year (*i.e.,* 2023).[29]

In addition, in this proposal, EPA identifies a receptor to be a ''maintenance'' receptor for purposes of defining interference with maintenance, consistent with the method used in the CSAPR and upheld by the D.C. Circuit in *EME Homer City Generation, L.P.* v. *EPA,* 795 F.3d 118, 136 (D.C. Cir. 2015).[30] Specifically, EPA identified maintenance receptors as those receptors that would have difficulty maintaining the relevant NAAQS in a scenario that takes into account historical variability in air quality at that receptor. The variability in air quality was determined by evaluating the ''maximum'' future design value at each receptor based on a projection of the maximum measured design value over the relevant period. EPA interprets the projected maximum future design value to be a potential future air quality outcome consistent with the meteorology that yielded maximum measured concentrations in the ambient data set analyzed for that receptor (*i.e.,* ozone conducive meteorology). EPA also recognizes that previously experienced meteorological conditions (*e.g.,* dominant wind direction, temperatures, air mass patterns) promoting ozone formation that led to maximum concentrations in the measured data may reoccur in the future. The maximum design value gives a reasonable projection of future air quality at the receptor under a scenario in which such conditions do, in fact, reoccur. The projected maximum design value is used to identify upwind emissions that, under those circumstances, could interfere with the downwind area's ability to maintain the NAAQS.

Recognizing that nonattainment receptors are also, by definition, maintenance receptors, EPA often uses the term ''maintenance-only'' to refer to those receptors that are not nonattainment receptors. Consistent with the concepts for maintenance receptors, as described above, EPA identifies ''maintenance-only'' receptors as those monitoring sites that have projected average design values above the level of the applicable NAAQS, but that are not currently measuring nonattainment based on the most recent official design values. In addition, those monitoring sites with projected average design values below the NAAQS, but with projected maximum design values above the NAAQS are also identified as ''maintenance only'' receptors, even if they are currently measuring nonattainment based on the most recent official design values.

3. Step 2 of the 4-Step Interstate Transport Framework

In Step 2, EPA quantifies the contribution of each upwind state to each receptor in the 2023 analytic year. The contribution metric used in Step 2 is defined as the average impact from each state to each receptor on the days with the highest ozone concentrations at the receptor based on the 2023 modeling. If a state's contribution value does not equal or exceed the threshold of 1 percent of the NAAQS (*i.e.,* 0.70 ppb for the 2015 ozone NAAQS), the upwind state is not ''linked'' to a downwind air quality problem, and EPA, therefore, concludes that the state does not significantly contribute to nonattainment or interfere with maintenance of the NAAQS in the

2 of the interstate transport framework by a particular attainment date, but for reasons of impossibility or profound uncertainty the Agency is unable to mandate upwind pollution controls by that date. *See Wisconsin,* 938 F.3d at 320. The D.C. Circuit noted in *Wisconsin* that upon a sufficient showing, these circumstances may warrant flexibility in effectuating the purpose of the interstate transport provision.

[27] *See* CAA section 181(a); 40 CFR 51.1303; Additional Air Quality Designations for the 2015 Ozone National Ambient Air Quality Standards, 83 FR 25776 (June 4, 2018, effective Aug. 3, 2018).

[28] *See North Carolina* v. *EPA,* 531 F.3d at 910–11 (D.C. Cir. 2008) (holding that EPA must give ''independent significance'' to each prong of CAA section 110(a)(2)(D)(i)(I)).

[29] *See* 81 FR 74504 (October 26, 2016). This same concept, relying on both current monitoring data and modeling to define nonattainment receptor, was also applied in CAIR. *See* 70 FR 25241, 25249 (January 14, 2005); *see also North Carolina,* 531 F.3d at 913–14 (affirming as reasonable EPA's approach to defining nonattainment in CAIR).

[30] *See* 76 FR 48208 (August 8, 2011). CSAPR Update and Revised CSAPR Update also used this approach. *See* 81 FR 74504 (October 26, 2016) and 86 FR 23054 (April 30, 2021).

downwind states. However, if a state's contribution equals or exceeds the 1 percent threshold, the state's emissions are further evaluated in Step 3, considering both air quality and cost as part of a multi-factor analysis, to determine what, if any, emissions might be deemed ''significant'' and, thus, must be eliminated under CAA section 110(a)(2)(D)(i)(I). EPA is proposing to rely in the first instance on the 1 percent threshold for the purpose of evaluating a state's contribution to nonattainment or maintenance of the 2015 ozone NAAQS (*i.e.,* 0.70 ppb) at downwind receptors. This is consistent with the Step 2 approach that EPA applied in CSAPR for the 1997 ozone NAAQS, which has subsequently been applied in the CSAPR Update when evaluating interstate transport obligations for the 2008 ozone NAAQS. EPA continues to find 1 percent to be an appropriate threshold. For ozone, as EPA found in the Clean Air Interstate Rule (CAIR), CSAPR, and the CSAPR Update, a portion of the nonattainment problems from anthropogenic sources in the U.S. result from the combined impact of relatively small contributions from many upwind states, along with contributions from in-state sources and, in some cases, substantially larger contributions from a subset of particular upwind states. EPA's analysis shows that much of the ozone transport problem being analyzed in this proposed rule is still the result of the collective impacts of contributions from many upwind states. Therefore, application of a consistent contribution threshold is necessary to identify those upwind states that should have responsibility for addressing their contribution to the downwind nonattainment and maintenance problems to which they collectively contribute. Continuing to use 1 percent of the NAAQS as the screening metric to evaluate collective contribution from many upwind states also allows EPA and states to apply a consistent framework to evaluate interstate emissions transport under the interstate transport provision from one NAAQS to the next. *See* 81 FR at 74518. *See also* 86 FR at 23085 (reviewing and explaining rationale from CSAPR, 76 FR at 48237–38, for selection of 1 percent threshold).

i. EPA's Experience With Alternative Step 2 Thresholds

EPA's August 2018 memorandum recognized that in certain circumstances, a state may be able to establish that an alternative contribution threshold of 1 ppb is justifiable. Where a state relies on this alternative threshold, and where that state determined that it was not linked at Step 2 using the alternative threshold, EPA will evaluate whether the state provided a technically sound assessment of the appropriateness of using this alternative threshold based on the facts and circumstances underlying its application in the particular SIP submission.

EPA here shares further evaluation of its experience since the issuance of the August 2018 memorandum regarding use of alternative thresholds at Step 2. This experience leads the Agency to now believe it may not be appropriate to continue to attempt to recognize alternative contribution thresholds at Step 2. The August 2018 memorandum stated that ''it may be reasonable and appropriate'' for states to rely on an alternative threshold of 1 ppb threshold at Step 2.[31] (The memorandum also indicated that any higher alternative threshold, such as 2 ppb, would likely not be appropriate.) However, EPA also provided that ''air agencies should consider whether the recommendations in this guidance are appropriate for each situation.'' Following receipt and review of 49 good neighbor SIP submittals for the 2015 ozone NAAQS, EPA's experience has been that nearly every state that attempted to rely on a 1 ppb threshold did not provide sufficient information and analysis to support a determination that an alternative threshold was reasonable or appropriate for that state.

For instance, in nearly all submittals, the states did not provide EPA with analysis specific to their state or the receptors to which its emissions are potentially linked. In one case, the proposed approval of Iowa's SIP submittal, EPA expended its own resources to attempt to supplement the information submitted by the state, in order to more thoroughly evaluate the state-specific circumstances that could support approval.[32] It was at EPA's sole discretion to perform this analysis in support of the state's submittal, and the Agency is not obligated to conduct supplemental analysis to fill the gaps whenever it believes a state's analysis is insufficient. The Agency no longer intends to undertake supplemental analysis of SIP submittals with respect to alternative thresholds at Step 2 for purposes of the 2015 ozone NAAQS.

Furthermore, EPA's experience since 2018 is that allowing for alternative Step 2 thresholds may be impractical or otherwise inadvisable for a number of additional policy reasons. For a regional air pollutant such as ozone, consistency in requirements and expectations across all states is essential. Based on its review of submittals to-date and after further consideration of the policy implications of attempting to recognize an alternative Step 2 threshold for certain states, the Agency now believes the attempted use of different thresholds at Step 2 with respect to the 2015 ozone NAAQS raises substantial policy consistency and practical implementation concerns.[33] The availability of different thresholds at Step 2 has the potential to result in inconsistent application of good neighbor obligations based solely on the strength of a state's implementation plan submittal at Step 2 of the 4-Step interstate transport framework. From the perspective of ensuring effective regional implementation of good neighbor obligations, the more important analysis is the evaluation of the emissions reductions needed, if any, to address a state's significant contribution after consideration of a multifactor analysis at Step 3, including a detailed evaluation that considers air quality factors and cost. Where alternative thresholds for purposes of Step 2 may be ''similar'' in terms of capturing the relative amount of upwind contribution (as described in the August 2018 memorandum), nonetheless, use of an alternative threshold would allow certain states to avoid further evaluation of potential emission controls while other states must proceed to a Step 3 analysis. This can create significant equity and consistency problems among states.

Further, it is not clear that national ozone transport policy is best served by allowing for less stringent thresholds at Step 2. EPA recognized in the August 2018 memorandum that there was some similarity in the amount of total upwind contribution captured (on a nationwide basis) between 1 percent and 1 ppb. However, EPA notes that while this may be true in some sense, that is hardly a compelling basis to move to a 1 ppb threshold. Indeed, the 1 ppb threshold has the disadvantage of losing a certain

[31] August 2018 memorandum at 4.

[32] *Air Plan Approval; Iowa; Infrastructure State Implementation Plan Requirements for the 2015 Ozone National Ambient Air Quality Standard,* 85 FR 12232 (March 2, 2020). The Agency received adverse comment on this proposed approval and has not taken final action with respect to this proposal.

[33] EPA notes that Congress has placed on EPA a general obligation to ensure the requirements of the CAA are implemented consistently across states and regions. *See* CAA section 301(a)(2). Where the management and regulation of interstate pollution levels spanning many states is at stake, consistency in application of CAA requirements is paramount.

amount of total upwind contribution for further evaluation at Step 3 (*e.g.,* roughly seven percent of total upwind state contribution was lost according to the modeling underlying the August 2018 memorandum; [34] in EPA's updated modeling, the amount lost is five percent). Considering the core statutory objective of ensuring elimination of all significant contribution to nonattainment or interference of the NAAQS in other states and the broad, regional nature of the collective contribution problem with respect to ozone, there does not appear to be a compelling policy imperative in allowing some states to use a 1 ppb threshold while others rely on a 1 percent of the NAAQS threshold.

Consistency with past interstate transport actions such as CSAPR, and the CSAPR Update and Revised CSAPR Update rulemakings (which used a Step 2 threshold of 1 percent of the NAAQS for two less stringent ozone NAAQS), is also important. Continuing to use a 1 percent of NAAQS approach ensures that as the NAAQS are revised and made more stringent, an appropriate increase in stringency at Step 2 occurs, so as to ensure an appropriately larger amount of total upwind-state contribution is captured for purposes of fully addressing interstate transport. *See* 76 FR 48208, 48237–38.

Therefore, notwithstanding the August 2018 memorandum's recognition of the potential viability of alternative step 2 thresholds, and in particular, a potentially applicable 1 ppb threshold, EPA's experience since the issuance of that memorandum has revealed substantial programmatic and policy difficulties in attempting to implement this approach. Nonetheless, EPA is not at this time rescinding the August 2018 memorandum. EPA invites comment on this broader discussion of issues associated with alternative thresholds at Step 2. Depending on comment and further evaluation of this issue, EPA may determine to rescind the August 2018 memorandum in the future.

4. Step 3 of the 4-Step Interstate Transport Framework

Consistent with EPA's longstanding approach to eliminating significant contribution or interference with maintenance at Step 3, states linked at Steps 1 and 2 are generally expected to prepare a multifactor assessment of potential emissions controls. EPA's analysis at Step 3 in prior Federal actions addressing interstate transport requirements has primarily focused on an evaluation of the cost-effectiveness of potential emissions controls (on a marginal cost-per-ton basis), the total emissions reductions that may be achieved by requiring such controls (if applied across all linked upwind states), and an evaluation of the air quality impacts such emissions reductions would have on the downwind receptors to which a state is linked; other factors may potentially be relevant if adequately supported. In general, where EPA's or alternative air quality and contribution modeling establishes that a state is linked at Steps 1 and 2, it will be insufficient at Step 3 for a state merely to point to its existing rules requiring control measures as a basis for approval. In general, the emissions-reducing effects of all existing emissions control requirements are already reflected in the air quality results of the modeling for Steps 1 and 2. If the state is shown still to be linked to one or more downwind receptor(s), the state must provide a well-documented evaluation determining whether their emissions constitute significant contribution or interference with maintenance by evaluating additional available control opportunities by preparing a multifactor assessment. While EPA has not prescribed a particular method for this assessment, EPA expects states at a minimum to present a sufficient technical evaluation. This would typically include information on emissions sources, applicable control technologies, emissions reductions, costs, cost effectiveness, and downwind air quality impacts of the estimated reductions, before concluding that no additional emissions controls should be required.[35]

5. Step 4 of the 4-Step Interstate Transport Framework

At Step 4, states (or EPA) develop permanent and federally enforceable control strategies to achieve the emissions reductions determined to be necessary at Step 3 to eliminate significant contribution to nonattainment or interference with maintenance of the NAAQS. For a state linked at Steps 1 and 2 to rely on an emissions control measure at Step 3 to address its interstate transport obligations, that measure must be included in the state's SIP so that it is permanent and federally enforceable. *See* CAA section 110(a)(2)(D) (''Each such [SIP] shall . . . contain adequate provisions . . .''). *See also* CAA 110(a)(2)(A); *Committee for a Better Arvin* v. *U.S. E.P.A.,* 786 F.3d 1169, 1175–76 (9th Cir. 2015) (holding that measures relied on by state to meet CAA requirements must be included in the SIP).

II. SIP Submissions Addressing Interstate Transport of Air Pollution for the 2015 Ozone NAAQS

Five of the six states within EPA Region 5 that are included in this multi-state proposed disapproval have chosen to use air quality modeling performed by the Lake Michigan Air Directors Consortium (LADCO) [36] as an alternative to or in addition to EPA's modeling for the purpose of identifying downwind receptors and upwind state contributions to these receptors relevant to their submissions. The LADCO modeling consisted of ozone season (May 1–September 30, 2011) model simulations using the Comprehensive Air Quality Model with Extensions, CAMx version 6.4 for a 2011 base year and 2023 as the future analytic year. In their modeling, LADCO used EPA's 2011-based ''EN'' emissions modeling platform, except for emissions from EGU's in 2023. In their modeling, LADCO used the Eastern Regional Technical Advisory Committee (ERTAC) EGU Tool version 2.7 [37] to provide EGU emissions for 2023, whereas EPA used projected EGU emissions based on engineering analytics.[38]

LADCO provided projected 2023 future year average and maximum design values using the methodology in EPA's 2014 modeling guidance.[39] Although projected design values were presented based on the 3x3 approach and the ''no water cell'' approach, described in the March 2018 memorandum, LADCO relied upon design values from the 3x3 approach for

[34] *See* August 2018 memorandum at 4.

[35] As examples of general approaches for how such an analysis could be conducted for their sources, states could look to the CSAPR Update, 81 FR 74504, 74539–51; CSAPR, 76 FR 48208, 48246–63; CAIR, 70 FR 25162, 25195–229; or the NO_X SIP Call, 63 FR 57356, 57399–405. *See also* Revised CSAPR Update, 86 FR 23054, 23086–23116. Consistently across these rulemakings, EPA has developed emissions inventories, analyzed different levels of control stringency at different cost thresholds, and assessed resulting downwind air quality improvements.

[36] LADCO works collaboratively with state governments, tribal governments, and various Federal agencies in Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin.

[37] *https://www.marama.org/2013-ertac-egu-forecasting-tool-documentation.*

[38] Technical Support Document (TSD) Additional Updates to Emissions Inventories for the Version 6.3, 2011 Emissions Modeling Platform for the Year 2023 *https://www.epa.gov/air-emissions-modeling/additional-updates-2011-and-2023-emissions-version-63-platform-technical.*

[39] *See* EPA's 2014 Draft Guidance Document, ''Draft Modeling Guidance for Demonstrating Attainment of Air Quality Goals for Ozone, PM2s, and Regional Haze'', *https://www.epa.gov/sites/default/files/2020–10/documents/draft-o3-pm-rh-modeling_guidance-2014.pdf.*

calculating contribution metric values at each receptor.

Source apportionment modeling was performed by LADCO using the CAMx Anthropogenic Precursor Culpability Assessment (APCA) tool to calculate contributions from individual states to ozone at downwind monitoring sites. In their modeling, LADCO tracked ozone contributions from only those states that contributed at or above a 1 percent of the NAAQS threshold to nonattainment and maintenance monitors in the EPA 2023 modeling provided in the March 2018 memorandum.

A. Illinois

Illinois Environmental Protection Agency (IEPA) submitted a SIP revision to address CAA Section 110(a)(2)(D)(i)(I) on May 21, 2019. The submission utilized LADCO modeling results previously mentioned. IEPA followed the 4-step interstate transport framework using an analytic year of 2023 to identify receptors, Illinois' linkages to receptors, and assess some emission reduction considerations. The following sections will discuss IEPA's submission and the information provided for each step in the process.

1. Information Provided by Illinois Regarding Step 1

For Step 1 in the 4-step framework, the IEPA relied on LADCO modeling to identify monitoring sites that are projected to have problems attaining or maintaining the 2015 ozone NAAQS in 2023. As previously mentioned, the LADCO modeling used the same technique as EPA to calculate future year design values which were used to identify maintenance and nonattainment receptors but used the ERTAC EGU Tool for EGU emissions. IEPA noted they believed that the ERTAC EGU tool provides better estimates of growth and forecasts than EPA's EGU emission projections. IEPA identified two maintenance receptors in the Great Lakes area (Sheboygan, Wisconsin and Allegan County, Michigan) as well as and three nonattainment receptors and five additional maintenance receptors in the Northeast. Across the continental U.S., IEPA identified a total of twelve nonattainment or maintenance receptors: seven nonattainment receptors and five maintenance receptors.[40]

2. Information Provided by Illinois Regarding Step 2

IEPA's submittal at Step 2 presented Illinois' projected 2023 contribution of ozone emissions to the downwind maintenance and nonattainment receptors and based on LADCO's ''with water'' modeling [41] IEPA used a contribution threshold of 1 ppb to define linkage as opposed to one percent of the 2015 ozone NAAQS standard (0.70 ppb). Illinois, relying on the August 2018 memorandum, argued that the state's reliance on the 1 ppb threshold to identify linkages was justified. First, IEPA asserted that the one percent of the NAAQS contribution threshold is arbitrary because it is not in the CAA. Second, IEPA claimed that a one percent of the NAAQS contribution threshold is inappropriate for the 2015 ozone NAAQS because 0.70 ppb is an order of magnitude smaller than the biases and errors typically documented for regional photochemical modeling. IEPA noted that 1 ppb is very small compared to the allowable error in peak performance and bias and in IEPA's view is a conservative Step 2 contribution threshold.

IEPA identified that Illinois is projected to contribute 14.93 ppb and 19.25 ppb, respectively, in 2023 to two maintenance receptors: Sheboygan, Wisconsin (Site ID: 55–117–0006), and Allegan, Michigan (Site ID: 26–005–0003). IEPA concluded that Illinois is linked above a contribution threshold of 1 ppb to these receptors.

3. Information Provided by Illinois Regarding Step 3

IEPA provided several arguments to justify their conclusion that no additional emission reductions are necessary to satisfy Illinois' ozone transport obligations. The submittal stated that Illinois is developing new NO_X RACT standards for the Chicago area that, in conjunction with existing NO_X reductions, are estimated to reduce NO_X emissions by up to 20,000 tons/year relative to existing state and Federal regulations impacting non-EGUs since 2014. IEPA claims that these reductions were not included in any 2023 modeling. Illinois claims these expected emissions reductions, alongside future Federal rules, will be enough to meet Illinois' good neighbor obligations.

IEPA asserted that Illinois' contributions to the Sheboygan, Wisconsin and Allegan County maintenance monitors, which are both in the LADCO domain, can be addressed in a manner that is fair and equitable for all involved states through Illinois' participation in LADCO. Illinois has been a member of LADCO since 1991. IEPA says that since the inception of LADCO in 1991, ambient ozone concentrations have drastically decreased in the Lake Michigan region. IEPA stated that it is working through LADCO to refine ozone forecasting for air quality and ozone receptors in the Midwest through various means including updating emissions inventories and a base case for the modeling that LADCO is preparing. IEPA stated that it expects field data from the 2017 Lake Michigan Ozone Study will inform the LADCO states to better simulate the meteorology and chemistry of ozone in the Lake Michigan area.

IEPA also attempted to rely on a concept related to international emissions, which was developed by outside parties and listed in Attachment A to the March 2018 memorandum. IEPA noted that if international emissions and offshore contributions to receptors from LADCO's modeling, 1.40 ppb to the Sheboygan, Wisconsin receptor and 0.98 ppb at the Allegan County receptor, were subtracted off the top of the receptors' maximum design values, Allegan, Michigan receptor's maximum design value would be below 71 ppb and the Sheboygan, Wisconsin receptor's maximum design value would drop down to 71.4 ppb. IEPA noted that subtracting international and offshore contributions would result in Allegan County no longer qualifying as a maintenance receptor.

4. Information Provided by Illinois Regarding Step 4

IEPA did not consider any new permanent and enforceable measures to reduce emissions in the SIP submission. IEPA instead noted they would continue to assist LADCO with future modeling and analysis and would work with EPA to identify additional ''flexibilities'' to define maintenance, quantify transport, and demonstrate attainment.[42]

B. Indiana

On November 2, 2018 the Indiana Department of Environmental Management (IDEM) submitted a revision to the Indiana SIP addressing interstate transport of air pollution for the 2015 ozone NAAQS. The submission contained what the state characterized as a weight of evidence analysis of Indiana's ozone transport receptors utilizing LADCO modeling results previously mentioned. Indiana did not explicitly follow the 4-Step interstate transport framework but did examine downwind air quality and Indiana's contributions using an analytic year of 2023 to describe

[40] IEPA's SIP submission, Table CC, page 15.

[41] *Id.*

[42] Illinois' SIP submission at 16.

Indiana's linkages to receptors. The following sections will describe IDEM's submission, and the information provided for each step in the process.

1. Information Provided by Indiana Regarding Step 1

For Step 1 of the 4-Step framework, IDEM identified monitoring sites that are projected to have problems attaining and/or maintaining the 2015 ozone NAAQS in 2023. As previously mentioned, the LADCO modeling used the same technique as EPA to calculate future year design values which were used to identify maintenance and nonattainment receptors but used the ERTAC EGU Tool for EGU emissions. IDEM noted they believed that the ERTAC EGU tool provides better estimates of growth and forecasts than EPA's EGU emission projections. IDEM presented the LADCO results, based on the ''3x3'' approach, which identified ten receptors: Seven monitors with 2023 maximum design values above the NAAQS, or maintenance receptors, and three monitors with 2023 average design values greater than the 2015 ozone standard, or nonattainment receptors.[43]

2. Information Provided by Indiana Regarding Step 2

IDEM's submittal presented Indiana's projected 2023 ozone contributions to maintenance and nonattainment receptors projected by the LADCO modeling. IDEM relied primarily on the August 2018 memorandum to justify the State's reliance on a 1 ppb contribution threshold to identify linkages, as opposed to the 1 percent of the 2015 ozone NAAQS standard (0.70 ppb) contribution threshold. IDEM noted that (1) the tolerance level of ozone monitors is 1 ppb and (2) model run results may contain biases larger than 1 percent of the NAAQS (0.70 ppb). Using a 1 ppb threshold, IDEM identified that Indiana is linked to three maintenance receptors: Sheboygan, Wisconsin (Monitor ID: 551170006), Allegan, Michigan (Monitor ID: 260050003), and Richmond, New York (Monitor ID: 360850067), and one nonattainment receptor: Harford, Maryland (Monitor ID: 240251001).[44] [45] However, IDEM concluded on the basis of its weight of evidence analysis, summarized in the following subsection, that the monitors at Sheboygan, Wisconsin and Allegan, Michigan would be in attainment in 2023.[46]

3. Information Provided by Indiana Regarding Step 3

IDEM cited Indiana's rule amendments under CSAPR to conclude the State was already satisfying its good neighbor obligations for the ozone NAAQS.[47] In support, IDEM provided a weight-of-evidence analysis to justify their conclusion that no additional emission reductions as necessary to satisfy Indiana's ozone transport obligations. The evidence consisted of an ozone monitoring data analysis, emissions analysis, and photochemical modeling analyses, including a back trajectory analysis.

IDEM provided information ozone and emissions trends. They cited a general decline in monitored ozone concentrations across Indiana from 2007 through 2017, a decrease in Indiana's overall statewide NO_X emissions and VOC emissions from 2005 to 2014, a decrease in Indiana EGU NO_X emissions from 2011 to 2016, and projected decreases in Region 5 EGU NO_X and VOC emissions through 2023 relative to a 2011 base year (based on both the ERTAC EGU Tool and EPA's EGU projections using the Integrated Planning Model (IPM)). IDEM credited the downward emissions trends to permanent and enforceable control measures. IDEM made the argument that overall decreasing ozone concentration and emissions trends in the State, and in the LADCO states, correlate with reduced contributions to nonattainment and maintenance receptors outside of Indiana. IDEM also identified air quality trends at the four downwind receptors to which IDEM determined Indiana was linked. IDEM asserted that a declining trend in three-year design values at the receptors in Harford, Maryland and Richmond, New York in combination with national emission reduction regulations in place for EGUs, tighter mobile source emission controls and other transport related emission reduction measures, would result in those two receptors reaching attainment over time. For the Sheboygan, Wisconsin and Allegan, Michigan receptors, IDEM concluded that if ozone design value trends continued as expected then those two receptors would reach attainment before 2023. IDEM also asserted they believed that the receptors in the Northeast (Harford, Maryland and Richmond, New York) received a greater contribution from local sources. IDEM represented EPA had reached the same conclusion, citing a May 14, 2018 presentation.

Next, IDEM presented an analysis of NOx controls for EGUs and non-EGUs in the state from 2008 to 2017. IDEM considered current NOx control measures, consent decree requirements, and future fuel switches and retirements for large EGUs and non-EGUs. IDEM reported that the State has seen a downward trend in annual NO_X emissions from both EGUs and non-EGUs due a combination of state and Federal rules targeting fossil fueled EGUs and other large sources of NO_X. IDEM argued that it would not be cost-effective for non-EGUs to implement further NO_X controls because in 2017 there were more than 93% fewer NO_X emissions from non-EGUs when compared to EGUs. IDEM stated they expect to see continued future NO_X emission reductions through 2028 from implementation of Federal rules, the expected shutdown of nine EGUs, planned fuel switches to natural gas for three EGUs, and enforceable consent decree caps on NO_X emissions at eleven EGUs. IDEM noted that future retirements or retrofits to coal fired EGUs in Indiana were expected to reduce NO_X emissions by several thousand tons beyond those projected by either LADCO or EPA. IDEM argued that the non-modeled emission reductions would further assure future year attainment of the ozone NAAQS at downwind receptors.

For their photochemical analyses, IDEM presented LADCO modeling results to show contributions from individual states to 12 monitors,[48] as well as contributions from individual sectors to the same 12 monitors.[49] IDEM noted that Indiana contributed above 1 ppb to monitors that would be receptors based on EPA's definitions. IDEM used these data as the backdrop to several arguments related to potential flexibilities identified in Attachment A to the March 2018 memorandum.[50] IDEM stated that additional emissions reductions from EGU and non-EGU sources in Indiana are becoming more difficult to require because of reduced effectiveness of controls to make significant decreases in ozone values, operational concerns, and increased

[43] Indiana's SIP submission Attachment 1, Table 7, page 30.

[44] Indiana's SIP submission Attachment 1, Table 1, page 12.

[45] IDEM acknowledged that both the Harford, Maryland and Richmond, New York receptors are nonattainment receptors in EPA's modeling. Indiana's SIP submission Attachment 1, page 12.

[46] Indiana's SIP submission Attachment 1, page 38, 53.

[47] Indiana's SIP submission, page 6.

[48] Indiana's SIP submission, Attachment 1, Table 9.

[49] Indiana's SIP submission, Attachment 1, Table 11.

[50] Based on the reference to the potential flexibilities in Attachment A to the March 2018 memorandum on page 2 of Attachment 1 to Indiana's SIP submission, EPA assumes the reference to ''flexibilities'' on page 38 of Attachment 1 likewise references Attachment A to the March 2018 memorandum.

costs for customers. IDEM asserted that emission reductions from local mobile and nonroad sources would be more beneficial to the receptors than additional reductions from EGUs and non-EGUs in Indiana because EGUs and non-EGUs contribute less to the receptors than either the mobile or nonroad sectors. IDEM also argued that EPA should address contributions from Canada and Mexico as well as contributions from offshore commercial marine vessels. In addition, IDEM compared 2012–2017 monitoring data to LADCO's and EPA's modeling and concluded that all four linked receptors were already below the projected 2023 design values. IDEM also calculated Indiana's portion of contribution to the Harford, Maryland receptor as 0.077 ppb (based on a contribution threshold of 1 ppb) and determined that Indiana would need to reduce its contribution by 0.0077 ppb to bring the Harford, Maryland receptor into attainment. IDEM argued that 0.0077 ppb is well within the error of the model and it would be ''difficult'' to translate into an emission reduction requirement.[51]

Finally, IDEM provided a back trajectory analysis to evaluate contributions from Indiana to the Harford, Maryland and Richmond, New York receptors on exceedance days from 2015 to 2017. These back trajectories were conducted at 10 meters and 750 meters and initialized at 18Z Greenwich Mean Time over a three-year period from 2015–2017. The trajectories were run backwards over a 72-hour period from the exceedance day measured at each of the monitors. Considering the Harford, Maryland receptor, Indiana measured one back trajectory at 10 meters and six back trajectories at 750 meters that passed through Indiana. For the Richmond, New York receptor, out of 27 exceedance days, Indiana measured three back trajectories at 10 meters and eight trajectories at 750 meters that passed through Indiana. Indiana argues that only a fraction of the exceedance days at the Harford and Richmond receptors has back trajectories that pass-through Indiana. Based on this analysis, IDEM concluded that those receptors are more likely to be impacted by local emissions and suggested that emission reductions should come first from the surrounding areas in the Northeast before from Indiana.

4. Information Provided by Indiana Regarding Step 4

IDEM did not provide a Step 4 analysis.

[51] Indiana's SIP submission, Attachment 1 at 42.

C. Michigan

Environment, Great Lakes and Energy (EGLE) (formerly Michigan Department of Environmental Quality) submitted a SIP revision to address CAA Section 110(a)(2)(D)(i)(I) on March 5, 2019. EGLE utilized EPA modeling released with the March 2018 memorandum and LADCO modeling and followed the 4-step interstate transport framework using an analytic year of 2023 to describe Michigan's linkages to receptors in other states. The submission also contained a weight-of-evidence analysis to support EGLE's conclusions. The following sections will discuss EGLE's submission and the information provided for each step in the process.

1. Information Provided by Michigan Regarding Step 1

For Step 1 in the 4-step framework, EGLE identified monitoring sites that are projected to have problems attaining and/or maintaining the 2015 ozone NAAQS in 2023. EGLE presented the results from both the EPA modeling from the March 2018 memorandum and LADCO (using both the with- and without-water approaches). EGLE noted that they believe the ERTAC EGU Tool uses a more transparent and state-driven data gathering mechanism for EGU emissions and control projects. EPA's modeling projected 16 receptors to which Michigan is projected to contribute in 2023. LADCO modeling (with and without water) identified 15 receptors to which Michigan is projected to contribute in 2023.

2. Information Provided by Michigan Regarding Step 2

The first part of EGLE's submittal's step 2 analysis presented Michigan's projected contributions to maintenance and nonattainment receptors in 2023 from both the LADCO modeling (with and without water) and the EPA modeling released with the March 2018 memorandum. The submittal noted similar contribution concentrations between the two, but found that the LADCO results often yielded slightly lower contribution from Michigan sources than the EPA modeling for some receptors. The state claimed this is attributed to LADCO's use of the ERTAC EGU tool which they stated includes information on EGU shutdowns and facility-specific information not included in the EPA modeling. EGLE stated they had more confidence in the LADCO modeling.

Further, EGLE attempted to rely on the 1 ppb Significant Impact Level (SIL) threshold from *Guidance on Significant Impact Levels for Ozone and Fine Particles in the Prevention of Significant Deterioration Permitting Program* (April 17, 2018) [52] for the Prevention of Significant Deterioration (PSD) permitting program as an appropriate contribution threshold to determine whether Michigan was linked to any receptors at step 2. Michigan argued that if a stationary source's contributions are insignificant below 1 ppb, then a state's interstate transport contributions below 1 ppb are likewise insignificant. EGLE performed an analysis on contribution thresholds to analyze whether a 1 ppb threshold is appropriate for identifying Michigan's linkages. The analysis looked at all 15 receptors to which Michigan contributes, based on the LADCO with water modeling, and plotted potential contribution thresholds ranging from 0.5 to 1.4 ppb against collective upwind contributions from all source categories and states with contribution above 0.5 ppb. EGLE plotted the collective contribution as a function of contribution threshold and concluded the first inflection point occurred in a majority of the collective contribution at a contribution threshold between 0.9 and 1 ppb, correlating with the PSD permitting SIL of 1 ppb. Based on this analysis, EGLE concluded that a 1 ppb contribution threshold was appropriate for use in the good neighbor context. EGLE also mentioned the August 2018 memorandum, described in Section I of this proposal, as additional support for the use of a 1 ppb contribution threshold.[53]

EGLE's Step 2 conclusion was that, based on LADCO with water modeling, Michigan was projected to be linked above a 1 ppb contribution threshold in 2023 to three maintenance receptors; 1.85 ppb to Sheboygan, Wisconsin (Site ID: 36–081–0124), 1.22 ppb to Queens, New York (Site ID: 36–085–0067), and 1.03 ppb to Richmond, New York (Site ID: 55–117–0006).

3. Information Provided by Michigan Regarding Step 3

EGLE provided what it characterized as a ''weight-of-evidence analysis'' in step 3 to justify their conclusion that no additional emissions reductions are necessary to satisfy Michigan's ozone transport obligations for the ozone NAAQS. The evidence presented in EGLE's submittal consisted primarily of an argument that upwind states should have a lower responsibility to other states when the upwind state is only linked to maintenance-only receptors.

[52] *https://www.epa.gov/sites/default/files/2018-04/documents/sils_policy_guidance_document_final_signed_4-17-18.pdf.*

EGLE's analysis focused in large part on the Sheboygan, Wisconsin maintenance receptor (Site ID: 36–081–0124), as EGLE concluded it was the receptor to which Michigan was projected to contribute the most in 2023 at 1.85 ppb.

On the issue of maintenance receptors, the state referenced a concept identified by outside parties and listed in Attachment A to the March 2018 memorandum, which was to consider whether the remedy for upwind states linked to maintenance receptors could be less stringent than those linked to nonattainment receptors. EGLE reasoned that because the CAA incudes different SIP development requirements for nonattainment and maintenance areas, that likewise nonattainment and maintenance areas should be treated differently in good neighbor SIPs. EGLE argued that because the CAA does not require emission reductions from maintenance areas, then upwind states can potentially make a sufficient showing they have no obligation to reduce emissions to monitors in other states projected to be maintaining the NAAQS. EGLE said they believe the reduction of projected contributions to projected maintenance receptors is not required in certain circumstances, such as when: (1) The projected maintenance exceedance is very small in magnitude, (2) the projected contribution is very small, especially compared to other states' contributions, (3) sector contributions demonstrate the majority of contribution is from either sources already federally regulated or sources without the possibility of additional regulation, (4) there are large impacts of international emissions, and (5) there are downward emission trends.

Applying this logic to the Sheboygan, Wisconsin receptor, EGLE argued that because the projected maximum design value at that receptor is 72.8 ppb, the projected exceedance above the 2015 ozone NAAQS of 1.9 ppb is very small (values are truncated to ppb, thus 70.9 ppb would be considered in attainment of the NAAQS). Based on this number, EGLE argued that further emissions reductions from Michigan would be overly burdensome. Secondly, citing a potential flexibility in Attachment A to the March 2018 memorandum related to sector contribution, EGLE claimed that 77% of contribution to the Sheboygan receptor is from federally regulated sources or sources that cannot be regulated by Michigan. EGLE noted that the other sectors of contribution it identified—oil and gas, EGUs, and non-EGUs—are already controlled by Michigan. EGLE argued Michigan sources should not be required to implement additional contribution reductions in light of the relative size of their contribution.

Citing Attachment A to the March 2018 memorandum, again, EGLE argued that the three receptors to which Michigan is linked are heavily influenced by international emissions and other states. EGLE shared that LADCO modeling projects Michigan's contribution to the Sheboygan receptor (1.85 ppb) is less than projected contributions from international contributions and boundary conditions (16.61 ppb), Illinois (14.93 ppb), Wisconsin (9.1 ppb), biogenic sources (7.19 ppb), and Indiana (6.19 ppb). EGLE used these numbers and an apportionment of contributions from states and other sources to the amount the Sheboygan monitor exceeds the 2015 ozone NAAQS to conclude that additional emissions reductions from Michigan should not be required. Additionally, EGLE argued that international contributions to the Sheboygan receptor, which is geographically close to Canada, should be eliminated from the projected DV, in which case the Sheboygan monitor would be in attainment.

EGLE also cited Attachment A to the March 2018 memorandum along with an interpretation of *EME Homer City* to argue that EPA cannot require reductions that would result in a reduction greater than an upwind state's portion of the difference between the NAAQS and a maintenance receptor's projected maximum design value. EGLE claimed that Michigan's apportioned contribution to three linked receptors, when distributed proportionally among other states that also contribute more than 1 ppb to those receptors, is less than 0.12 ppb, but that Michigan's responsibility to the exceedance is actually substantially less than that amount when the home state's responsibility is considered. EGLE also stated Michigan's apportioned contribution is at less than 0.05 ppb of the projected maintenance exceedance at the Sheboygan receptor, which is less than the variation among the modeled maximum design values by both LADCO and EPA. EGLE concluded that because of built-in modeling noise it would be ''difficult'' to either verify that Michigan contributed 0.05 ppb to the Sheboygan, Wisconsin receptor or for Michigan to require any additional reduction from sources in the state.[54] EGLE speculated it was quite likely that the three linked receptors would maintain the NAAQS without any emissions reductions from Michigan at all because the projected exceedances were small.

The state also stated that Michigan has downward emissions trends (44% and 18% reduction in industrial point source NO_X and VOC emissions from 2008 through 2016, respectively) that are expected to continue to decline or stay consistent over time due to projected reductions in emissions from point sources of NO_X and VOCs EGUs, mobile sources and through other Federal measures. For EGUs, EGLE pointed out that the shutdown of the Marquette Board of Light & Power Shiras Steam Plant shut down was not included in either EPA or LADCO modeling and that the U.S. Energy Information Agency's Annual Energy Outlook anticipates growth in renewable energy in Michigan in 2019 and a decline in coal beginning in 2022. EGLE also provided a list of additional coal-fired EGUs that they stated were expected to retire by 2023. To support the conclusion that emissions will further be reduced from mobile sources and through other Federal action, EGLE listed several on the books and on the way Federal regulations. Finally, EGLE noted existing controls on the oil and gas sector (applicable Federal standards), non-EGUs (subject to the NO_X SIP Call), and EGUs (subject to CSAPR Update).

4. Information Provided by Michigan Regarding Step 4

EGLE concluded it would be unreasonable for Michigan to take further actions to address its obligations under the good neighbor provisions for the ozone NAAQS, and so at Step 4 EGLE determined that no permanent and enforceable measures to reduce emissions were necessary.

D. Minnesota

Minnesota Pollution Control Agency (MPCA) submitted a SIP revision to address CAA Section 110(a)(2)(D)(i)(I) on October 1, 2018. The submission utilized both EPA modeling released with the March 2018 memorandum and LADCO modeling results previously mentioned. Minnesota followed the 4-step interstate transport framework and used an analytic year of 2023 to describe Minnesota's lack of contributions to out of state receptors and assess emission reduction considerations. The following sections will summarize MPCA's submission and the information provided for each step in the process.

[54] Michigan's SIP submission at 27.

1. Information Provided by Minnesota Regarding Step 1

For Step 1 in the 4-step framework, MPCA identified monitoring sites that are projected to have problems attaining and/or maintaining the 2015 ozone NAAQS in 2023 according to LADCO modeling and EPA modeling released in the March 2018 memorandum.[55] As previously mentioned, the LADCO modeling efforts used the same technique as EPA to calculate future year design values which are used to identify maintenance and nonattainment receptors. The submittal expressed MPCA's opinion that the ERTAC EGU tool used in LADCO's modeling is superior to EPA's 2023en modeling platform because the ERTAC EGU tool addresses economic factors, preserves system reliability, and includes controls or emissions reductions measure justified through some legal framework.

2. Information Provided by Minnesota Regarding Step 2

MPCA's submittal at Step 2 presented Minnesota's projected 2023 ozone contributions to maintenance and nonattainment receptors identified by both LADCO modeling and EPA modeling released in the March 2018 memorandum.[55] The submittal noted there were differences in identified receptors between the two modeling results, and that the LADCO results overall yielded slightly lower projected contributions to downwind receptors from Minnesota sources than EPA modeling.

Minnesota relied on a contribution threshold of 1 percent of the ozone NAAQS (0.70 ppb) to define linkages for a state's contribution to downwind air quality problems. Both the LADCO modeling and the EPA modeling released in the March 2018 memorandum projected that Minnesota contributes less than 1 percent of the NAAQS to all downwind receptors. MPCA showed in Table 2 of its submission that the highest projected contribution to a receptor in 2023 was 0.40 ppb, based on EPA modeling released in the March 2018 memorandum, or 0.45 ppb, based on LADCO ''no water'' modeling, to the Milwaukee, Wisconsin receptor (Site ID: 55–079–0085). Based on this analysis, MPCA concluded that Minnesota was not linked above 1 percent of the NAAQS to any downwind receptor, and therefore would not contribute to nonattainment or interference with maintenance in other state with respect to the ozone NAAQS.

3. Information Provided by Minnesota Regarding Step 3

Despite concluding Minnesota was not linked at Step 2, MPCA proceeded with a Step 3 analysis. MPCA provided air quality data in Step 3 to justify that no additional emissions reductions are necessary to satisfy their transport obligations. MPCA provided evidence of decreasing ambient ozone concentrations in Minnesota from the mid-1990s through 2017 as well as decreasing NO_X and VOC emissions from the state from 2002 through 2015 to further support their conclusion.[56]

The state concluded that decreasing ambient ozone concentrations in the state point to Minnesota contributing less to ozone in downwind states as time goes on. Minnesota provided an analysis of NO_X and VOC emissions levels in the state from 2002 through 2015 to further support this point. According to MPCA, NO_X emissions have been steadily declining in the state from all sectors and especially from EGUs due to emission limits and reductions required in that category. MPCA also asserted that VOCs emissions have also seen a similar decline in Minnesota in the years reported. MPCA concluded that decreasing emissions in the state would make it unlikely for the state to contribute significantly to nonattainment or interference with maintenance in downwind states.

4. Information Provided by Minnesota Regarding Step 4

Citing declining emissions and their conclusion that Minnesota was not projected to contribute above 1 percent of the NAAQS to any receptor, MPCA concluded that no additional permanent or enforceable measures would be needed to address ozone transport contribution from Minnesota sources. MPCA determined the existing emission controls would be sufficient to maintain Minnesota's continued contribution of less than 1 percent of the NAAQS to downwind receptors. In support of this argument, Minnesota provided a list of several Federal and State emissions regulations applicable to sources in Minnesota, including Part 70 permits, the CSAPR NO_X trading programs, Mercury and Air Toxics Standards, and various state standards for SO_2, particulate matter, NO_X, NO_2, and VOC. Hence, Minnesota declined to consider any new permanent and enforceable measures to reduce emissions as part of the Step 4 analysis.

E. Ohio

On September 28, 2018 the Ohio Environmental Protection Agency (OEPA) submitted a revision to the Ohio SIP addressing interstate transport of air pollution for the 2015 ozone NAAQS. OEPA stated that its submittal, which relied on an analytic year of 2023, conforms with EPA's four-step framework. The following sections will describe what OEPA provided for each step.

1. Information Provided by Ohio Regarding Step 1

For Step 1 in the 4-step framework, OEPA first identified 10 monitoring sites in the Northeast and Midwest that are projected to be nonattainment, nonattainment/maintenance, or maintenance-only receptors for the 2015 ozone NAAQS in 2023 based on LADCO's modeling and EPA's method for defining nonattainment and maintenance receptors (*See* Table 1 below, reproduced from OEPA's submission).

TABLE 1—OHIO'S PROJECTED 2023 NONATTAINMENT AND MAINTENANCE MONITORS

Site ID	County	State	2015–2017 DV	2023 Average DV	2023 Max DV	OH contribution	Status	2023 Maintenance DV (TX approach)	Status (TX approach)
36–103–0002	Suffolk	NY	76	71.6	73.1	1.75	Nonattainment/ Maintenance.	69.7	Nonattainment.
09–001–9003	Fairfield	CT	83	71.4	74.2	1.58	Nonattainment/ Maintenance.	73.7	Nonattainment/ Maintenance.

[55] MPCA's SIP submittal at Tables 2 and 3, pages 8–9.

[56] *See* Minnesota's SIP submittal Figures 1–3, pages 10–11.

TABLE 1—OHIO'S PROJECTED 2023 NONATTAINMENT AND MAINTENANCE MONITORS—Continued

Site ID	County	State	2015–2017 DV	2023 Average DV	2023 Max DV	OH contribution	Status	2023 Maintenance DV (TX approach)	Status (TX approach)
24–035–1001	Harford	MD	75	71.0	73.3	2.83	Nonattainment/ Maintenance.	67.0	Nonattainment.
36–085–0067	Richmond	NY	76	70.9	72.4	2.24	Maintenance	68.0	Attainment.
55–117–0006	Sheyboygan	WI	80	70.5	72.8	1.17	Maintenance	71.1	Maintenance.
09–009–9002	New Haven	CT	82	69.9	72.6	1.12	Maintenance	72.6	Maintenance.
09–001–3007	Fairfield	CT	83	69.8	73.7	1.84	Maintenance	73.7	Maintenance.
36–081–0124	Queens	NY	74	69.2	71.0	1.88	Maintenance	70.1	Attainment.
09–001–0017	Fairfield	CT	79	68.9	71.2	1.05	Maintenance	71.2	Maintenance.
26–005–0003	Allegan	MI	73	68.8	71.5	0.19	Maintenance—Not Linked.	71.5	Maintenance—Not Linked.

OEPA then claimed that EPA's methodology for determining maintenance-only receptors is inappropriate because it is more stringent than EPA's methodology for identifying nonattainment monitors and is inconsistent with the CAA. In OEPA's view, EPA's methodology results in greater emissions reduction requirements to address maintenance receptors than nonattainment receptors. Citing stakeholder-identified potential flexibilities that were listed in an attachment to EPA's March 2018 memorandum, OEPA used an alternative method developed by the Texas Commission for Environmental Quality (TCEQ) to identify maintenance receptors. This method determines a future year design value (DV) for purposes of identifying maintenance-only receptors by applying the model-predicted relative response factor (RRF) to the most recent 3-year design value (*i.e.,* 2011–2013 design value) within the five-year base period (*i.e.,* 2009–2013), rather than the highest 3-year DV in the same 5-year base period, which is used in EPA's approach. OEPA stated that using the TCEQ approach accounts for emissions reductions over the five-year period, while also accounting for meteorological variability, since the design value is calculated based on monitoring data from a three-year period. By using the TCEQ approach, Ohio concluded that four monitors which would be either nonattainment/maintenance receptors under EPA's method would, under the TCEQ method, actually be nonattainment-only receptors (*i.e.,* sites 261030002 in Suffolk, New York, 240251001 in Harford, Maryland) or monitors in attainment (*i.e.,* sites 360850067 in Richmond, New York, and 360810124 in Queens, New York) in 2023.[57]

OEPA's submittal provided information on inter-annual meteorological variability, ozone design value trends at the four monitoring sites that the state eliminated as receptors, as well as recent and projected trends in NO_X and VOC emissions to support the use of an alternative definition of maintenance receptors. The meteorological information provided in OEPA's submission included nationwide maps showing the maximum temperature anomaly (*i.e.,* departure from the long-term average or ''normal'') for the period May through October in the years 2011, 2012, and 2013. OEPA concluded from these maps that temperatures in the Northeast and Midwest were above or much above average during May through October in each of the years 2011, 2012, and 2013. OEPA examined trends in ozone design values at each of the four monitoring sites in question and concluded that design values at these sites have declined substantially from 2000 through 2017 and that although there has been a slight leveling off or increase in recent years, this is no greater than the normal year to year variability. In addition, based on the emissions trends data, OEPA stated that NO_X emissions have declined in concert with these trends in design values and are projected to continue to decline through 2028 for the continental U.S. as well as those states that were projected to be linked to the four monitors eliminated under the TCEQ approach. Based on their analysis of the meteorological and ozone and emissions trends data, OEPA concluded that the four monitoring sites identified previously are not reasonably expected to have difficulty maintaining the standards in 2023.

2. Information Provided by Ohio Regarding Step 2

OEPA's submittal presented the projected 2023 ozone contributions from Ohio to ten maintenance and nonattainment receptors in the Northeast and Midwest using data from the LADCO source apportionment modeling. LADCO's contribution data identified a total of nine receptors in 2023 (3 nonattainment and 6 maintenance-only) with modeled contributions from emissions in Ohio that exceed both a one percent of the 2015 NAAQS threshold (*i.e.,* 0.70 ppb) and a 1 ppb contribution threshold (Table 1). Despite acknowledging Ohio was linked to the same number of receptors under either a 1 percent of the NAAQS or 1 ppb, OEPA maintained they had concerns about both thresholds being too stringent, noting that Ohio would have two linkages if the threshold were 3 percent and zero linkages if the threshold were 4 percent.

As noted above, OEPA applied the TCEQ method for identifying maintenance-only receptors, and concluded that four of the receptors to which Ohio was linked would not have difficulty maintaining the NAAQS in 2023. However, after eliminating these four monitoring sites as having maintenance issues, OEPA acknowledged that Ohio would still be linked to seven receptors in 2023.

3. Information Provided by Ohio Regarding Step 3

OEPA provided what they characterize as a weight of evidence analysis in Step 3 to justify their conclusion that no additional emissions reductions are necessary to satisfy Ohio's interstate transport obligations under the 2015 ozone NAAQS. OEPA argued that their analysis demonstrated that any additional controls beyond those on the books or already planned would result in overcontrol of sources in Ohio, likely at cost-prohibitive levels.

First, OEPA attempted to show that NO_X and VOC 2023 emissions from EGU, nonEGU, and onroad sectors had been overestimated by 21,761 tons of NO_X and 3,240 tons of VOC annually, and 7,040 tons of NO_X and 878 tons of VOC per ozone season. The submittal performed an evaluation of the ERTAC EGU Tool, emphasizing that projected 2023 EGU emissions from eight facilities

[57] Ohio's SIP submission, Table 1.

were overestimated, analyzed through a comparison of actual emissions data obtained from EPA's Clean Air Markets Database (CAMD) and CSAPR/CSAPR Update allocations obtained from EPA's CSAPR website with projected emissions in 2023 obtained from ERTAC EGU tool. OEPA also based its conclusions on an expected increase of natural gas sources projected by the U.S. Energy Information's Annual Energy Outlook 2018 and recently permitted natural gas facilities not reflected in the ERTAC EGU tool. Further, OEPA evaluated emissions from nine non-EGU sources to claim EPA's 2023 projected emissions were overestimated. For this analysis, OEPA compared actual emissions data trends from Ohio's Emissions Inventory System18 with projected emissions from EPA's Air Emissions Modeling Platform 2011v6.319 to conclude EPA's projections overestimated non-EGU emissions. OEPA also asserted that EPA's projections of vehicle miles traveled (VMT) were higher than the local projections.

OEPA's submittal also looked at NO_X and VOC emissions trends, and asserted that from 2011 to 2016, NO_X emissions declined while VOC emissions remained steady. Additionally, based on state-specific data, OEPA posited that Ohio's VOC emissions will decrease even more rapidly than predicted by EPA because the large growth in the State's oil and gas sector had begun to level off. OEPA attributed the trends it identified to several Federal and State programs, including SIP approved state programs, non-SIP approved programs such as NO_X RACT, Architectural and Industrial Maintenance (AIM) Coatings rules, Ohio's Beneficiary Mitigation Plan for the Volkswagen settlement, and Federal programs such as CAIR and CSAPR, NO_X SIP Call, the National Emission Standards for Hazardous Air Pollutants (NESHAP), the Regional Haze Rule, BART, SO_2 Data Requirements Rule, and MATS.

In addition to emissions trends data, OEPA noted LADCO modeling projected downwind trends in design values at the ten receptors from 2000 through 2017 and included a reference to ''a May 14, 2018 presentation, U.S. EPA Office of Air Quality Planning and Standards (OAQPS)''.[58] OEPA also stated that LADCO sector-based source apportionment modeling indicates a significant contribution from onroad sources at nine receptors. OEPA argued that local onroad emissions should be addressed by EPA before EPA requires additional reductions from upwind states. OEPA also suggested EPA should take into account the impact on ozone of the proposed Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule before taking final action on SAFE. Further, OEPA asserted that Ohio's contribution to nine monitors is in the 1 or 2 ppb range while the home state and initial and boundary contributions are each up to 19 ppb, and the contribution from Canada/Mexico is in the same range as Ohio's. OEPA argued that ignoring international emissions sources and placing all responsibility for addressing receptors on upwind states would result in overcontrol.

OEPA concluded that there were no cost-effective measures to be taken for EGU or non-EGU sources in Ohio. To support this claim, OEPA pointed to the cost effectiveness threshold of $1400/ton from the CSAPR Update (81 FR 74508, October 26, 2016), and while OEPA recognized that it was developed for the 2008 ozone standard, OEPA stated they believed it is a reasonable cost-effectiveness level for the 2015 ozone NAAQS. As for non-EGUs, OEPA asserted that those sectors were adequately controlled by the Boiler MACT and numerous other MACT categories, BART, SO_2 Data Requirements Rule and other Federal regulations.

4. Information Provided by Ohio Regarding Step 4

OEPA concluded, based on its weight of evidence analysis, that no additional emissions reduction measures beyond existing and planned controls are necessary to address ozone transport contribution from Ohio sources for the 2015 ozone NAAQS.

F. Wisconsin

Wisconsin Department of Natural Resources (WDNR) submitted a SIP revision to address CAA Section 110(a)(2)(D)(i)(I) on September 14, 2018. The submittal notes state and Federal rules applicable to sources in Wisconsin that are relevant to interstate transport, as well as Wisconsin's participation in LADCO. WDNR identified CAIR, CSAPR, CSAPR Update, Wisconsin's regional haze SIP applicable for the 2008–2018 planning period, and state PSD programs. Further, WDNR cited continued consultation with LADCO, three Wisconsin Administrative Code statutes that could be relied on ''[i]f needed'' to address disagreements for SIP development in other states' nonattainment areas, and an adequate PSD program.[59] The statues mentioned include Wisconsin Administrative Code, Natural Resources (Wis. Admin. Code, NR), subsections 285.11, 285.13 and 285.15. The first two address air pollution control department duties and powers. The third, Wisconsin Statute 285.15, entitled Interstate Agreement, gives the governor the authority to enter an agreement to solve interstate pollution transport with Illinois, Indiana and Michigan if the area includes portions of both Wisconsin and Illinois.[60] WDNR does not explicitly reach the conclusion that Wisconsin has satisfied the good neighbor provision for the 2015 ozone NAAQS, but it is implied. WDNR did not reference the 4-step framework. WDNR did not rely on any modeling, identify any receptors, or determine whether Wisconsin contributes any amount of ozone precursor emissions to downwind states. The submittal does not include an analysis of potential NO_X controls. WDNR did not rely on any EPA memoranda. No supporting documentation was provided. Apart from the cited rules and LADCO membership, WDNR provided no discussion or analysis to determine whether they have any obligations under the 2015 ozone NAAQS.

III. EPA Evaluation

EPA is proposing to find that the Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin's SIP submissions do not meet the states' obligations with respect to prohibiting emissions that contribute significantly to nonattainment or interfere with maintenance of the 2015 ozone NAAQS in any other state based on EPA's evaluation of the SIP submissions using the 4-step interstate transport framework, and EPA is therefore proposing to disapprove Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin's SIP submissions.

A. Illinois

1. Evaluation of Information Provided by Illinois Regarding Step 1

For Step 1 in the 4-step framework, IEPA identified monitoring sites that are projected to have problems attaining or maintaining the 2015 ozone NAAQS in 2023. As previously mentioned, the LADCO modeling efforts used the same technique as EPA to calculate future year design values used to identify maintenance and nonattainment receptors. IEPA presented the LADCO results with water cells, which identified five monitors with 2023 maximum design values greater than the

[58] Ohio's SIP submission at 43.

[59] Wisconsin's SIP submission at 4.

[60] *See* Wis. Admin. Code NR 285.15 (2021), available at *https://docs.legis.wisconsin.gov/statutes/statutes/285/ii/11.*

2015 ozone standard, or maintenance receptors, and seven monitors with 2023 average design values greater than the 2015 ozone standard, or nonattainment receptors. Since new modeling has been performed by EPA with updated emission data, EPA proposes to rely on the most recent modeling to identify nonattainment and maintenance receptors with linkage to Wisconsin in 2023. Nonetheless, the alternative modeling relied on by IEPA also identified a number of nonattainment and maintenance receptor sites in 2023. *See* Table CC on page 15 of IEPA's submittal. Thus, even under the alternative modeling of 2023, IEPA acknowledges in its submittal the existence of several nonattainment and maintenance receptors.

2. Evaluation of Information Provided by the State Regarding Step 2

Although Illinois relied on alternative modeling to EPA's modeling, Illinois acknowledged in their SIP submission that it is linked to one or more downwind receptors above either a 1 percent of the NAAQS or a 1 ppb contribution threshold in 2023. Because the alternative modeling relied on by the state also demonstrates that a linkage exists between the state and downwind receptors at step 2, EPA need not conduct a comparative assessment of the alternative modeling; the state concedes that it is linked. IEPA's analysis corroborates the conclusion in EPA's most recent modeling in that the modeling demonstrates the State to be linked above 1 percent of the NAAQS to a downwind receptor, as described in the next section.

IEPA, relying on a concept listed in Attachment A to the March 2018 memorandum, attempted to justify the use of a 1 ppb threshold at step 2 to identify whether the state was ''linked'' to a projected downwind nonattainment or maintenance receptor. As explained in Section I above, the concepts presented in Attachment A to the March 2018 memorandum were developed by outside parties; they are neither guidance nor determined by EPA to be consistent with the CAA. However, EPA's August 2018 memorandum also addressed possible alternative thresholds and suggested that, with appropriate additional analysis, it may be reasonable for states to use a 1 ppb contribution threshold, as an alternative to a 1 percent of the NAAQS threshold, at Step 2 of the 4-Step interstate transport framework for the purposes of identifying linkages to downwind receptors.

As an initial matter, EPA does not accept Illinois' argument that a 1 percent of the NAAQS contribution threshold at Step 2 is ''inappropriate'' for the 2015 ozone NAAQS due to modeling biases and errors.[61] The explanation for how the 1 percent contribution threshold was originally derived is available in the 2011 CSAPR rulemaking. *See* 76 FR 48208, 48237–38. Further, in the CSAPR Update, EPA re-analyzed the threshold for purposes of the 2008 ozone NAAQS and determined it was appropriate to continue to apply this threshold. EPA compared the 1 percent threshold to a 0.5 percent of NAAQS threshold and a 5 percent of NAAQS threshold. EPA found that the lower threshold did not capture appreciably more upwind state contribution compared to the 1 percent threshold, while the 5 percent threshold allowed too much upwind state contribution to drop out from further analysis. *See* Final CSAPR Update Air Quality Modeling TSD, at 27–30 (EPA–HQ–OAR–2015–0596–0144). If EPA were to apply this analysis to the 2015 ozone NAAQS using the updated modeling based on the 2016v2 emissions platform, a 5 percent of the NAAQS contribution threshold (*i.e.,* 3.5 ppb) only captures approximately 50 percent of the total upwind contribution. Compared to a 1 percent threshold, a 5 percent threshold would, on average, forgo 27 percent of the total upwind contribution. As EPA noted in the August 2018 memorandum, the use of even a 2 ppb contribution threshold under the modeling released with the March 2018 memorandum would only capture about 55 percent of all upwind contributions, and therefore ''emission reductions from states linked at that higher threshold may be insufficient to address collective upwind state contribution to downwind air quality problems.'' [31]

With these figures in mind, IEPA's claims that the contribution threshold should be substantially higher than 1 or even 2 ppb solely on the basis of modeling uncertainty cannot be accepted. First, both LADCO's and EPA's modeling techniques are sufficiently reliable and fit for the purpose to measure upwind contribution levels down to at least one percent of the NAAQS. EPA's recommended model attainment test is based on application of the model in a relative sense rather than relying upon absolute model predictions.[62] All models have limitations resulting from uncertainties in inputs and scientific formulation. To minimize the effects of these uncertainties, the modeling is anchored to base period measured data in EPA's guidance approach for projecting design values. Notably, EPA also uses our source apportionment modeling in a relative sense when calculating the average contribution metric (used to identify linkages). In this method the magnitude of the contribution metric is tied to the magnitude of the projected average design value which is tied to the base period average measured design value. EPA's guidance has not established a bright line criteria for judging whether or not statistical measures of model performance constitute acceptable or unacceptable model performance. So, contrary to what Illinois appears to be claiming with regards to modeling biases, there are no EPA recommended measures of allowable error. Although EPA does not typically focus on using particular benchmarks as the sole criteria for model performance, EPA notes that the model performance for the updated modeling based on the 2016v2 emissions platform is generally within the benchmarks recommended by Emery.[63]

EPA has successfully applied a 1 percent of NAAQS threshold to identify linked upwind states in three prior rulemakings. And the D.C. Circuit has declined to establish bright line criteria for model performance. In upholding EPA's approach to evaluating interstate transport in CSAPR, the D.C. Circuit held that they would not ''invalidate EPA's predictions solely because there might be discrepancies between those predictions and the real world. That possibility is inherent in the enterprise of prediction.'' *EME Homer City Generation, L.P.* v. *EPA,* 795 F.3d 118, 135 (2015). The court continued to note that ''the fact that a 'model does not fit every application perfectly is no criticism; a model is meant to simplify reality in order to make it tractable.''' *Id.* at 135–36 (quoting *Chemical Manufacturers Association* v. *EPA,* 28 F.3d 1259, 1264 (D.C. Cir. 1994).

Finally, EPA's August 2018 memorandum provided that whether use of a 1 ppb threshold is appropriate must be based on an evaluation of state-specific circumstances, and no such evaluation was included in the

[61] Illinois' SIP submission at 8, 14.

[62] See Section 4.1' ''Overview of Modeled Attainment Test in EPA Modeling Guidance for Demonstrating Air Quality Goals for Ozone, $PM_{2.5}$, and Regional Haze. November 2018. EPA 454–R–18–009. *https://www.epa.gov/scram/sip-modeling-guidance-documents.*

[63] Christopher Emery, Zhen Liu, Armistead G. Russel, M. Talat Odman, Greg Yarwood and Naresh Kumar (2017). Recommendations on statistics and benchmarks to assess photochemical model performance, Journal of the Air & Waste Management Association, 67:5,582–598, *DOI: 10.1080/10962247.2016.1265027.*

submission. IEPA did not conduct such an analysis. EPA's experience with the alternative Step 2 thresholds is further discussed in Section I.D.3.i. As discussed there, EPA is considering withdrawing the August 2018 memorandum.

However, based on both the state's alternative modeling and EPA's updated modeling, the state is projected to contribute greater than both the 1 percent and alternative 1 ppb thresholds. While EPA does not, in this action, approve of the IEPA's application of the 1 ppb threshold, based on Illinois' linkages greater than 1 ppb to projected downwind nonattainment or maintenance receptors, the state's use of this alternative threshold at step 2 of the 4-step interstate framework would not alter our review and proposed disapproval this SIP submittal.

3. Results of EPA's Step 1 and Step 2 Modeling and Findings for Illinois

As described in Section I, EPA performed air quality modeling using the 2016v2 emissions platform to project design values and contributions for 2023. These data were examined to determine if Illinois contributes at or above the threshold of 1 percent of the 2015 ozone NAAQS (0.70 ppb) to any downwind nonattainment or maintenance receptor. As shown in Table 2, the data[64] indicate that in 2023, emissions from Illinois contribute greater than 1 percent of the standard to nonattainment or maintenance-only receptors in Wisconsin.[65]

TABLE 2—ILLINOIS LINKAGE RESULTS BASED ON EPA UPDATED 2023 MODELING

Receptor ID	Location	Nonattainment/maintenance	2023 Average design value (ppb)	2023 Maximum design value (ppb)	Illinois contribution (ppb)
550590025	Kenosha, WI	Maintenance	69.2	72.3	18.55
550590019	Kenosha, WI	Nonattainment	72.8	73.7	18.13
551010020	Racine, WI	Nonattainment	71.3	73.2	13.86

Therefore, based on EPA's evaluation of the information submitted by IEPA, and based on EPA's most recent modeling results for 2023, EPA proposes to find that Illinois is linked at Steps 1 and 2 and has an obligation to assess potential emissions reductions from sources or other emissions activity at Step 3 of the 4-step framework. EPA will proceed to Step 3 of the 4-step interstate transport framework to assess the arguments the state presented as to why, despite this linkage, the state should not be considered to significantly contribute to nonattainment or interfere with maintenance of the NAAQS in any other state.

4. Evaluation of Information Provided Regarding Step 3

At Step 3 of the 4-step interstate transport framework, a state's emissions are further evaluated, in light of multiple factors, including air quality and cost considerations, to determine what, if any, emissions significantly contribute to nonattainment or interfere with maintenance and, thus, must be eliminated under CAA section 110(a)(2)(D)(i)(I).

To effectively evaluate which emissions in the state should be deemed ''significant'' and therefore prohibited, states generally should prepare an accounting of sources and other emissions activity for relevant pollutants and assess potential, additional emissions reduction opportunities and resulting downwind air quality improvements. EPA has consistently applied this general approach (*i.e.,* Step 3 of the 4-step interstate transport framework) when identifying emissions contributions that the Agency has determined to be ''significant'' (or interfere with maintenance) in each of its prior Federal, regional ozone transport rulemakings, and this interpretation of the statute has been upheld by the Supreme Court. *See EME Homer City,* 572 U.S. 489, 519 (2014). While EPA has not directed states that they must conduct a Step 3 analysis in precisely the manner EPA has done in its prior regional transport rulemakings, state implementation plans addressing the obligations in CAA section 110(a)(2)(D)(i)(I) must prohibit ''any source or other type of emissions activity within the state'' from emitting air pollutants which will contribute significantly to downwind air quality problems. Thus, states must complete something similar to EPA's analysis (or an alternative approach to defining ''significance'' that comports with the statute's objectives) to determine whether and to what degree emissions from a state should be ''prohibited'' to eliminate emissions that will ''contribute significantly to nonattainment in or interfere with maintenance of'' the NAAQS in any other state. IEPA did not conduct such an analysis in Illinois' SIP submission.

IEPA argued that Illinois' contributions to the nonattainment monitors in the LADCO domain, namely the Allegan and Sheboygan receptors, EPA can be fairly and adequately addressed through Illinois' participation in LADCO. Though IEPA suggested that LADCO may be partially responsible for decreases in ambient ozone concentrations in the Lake Michigan area, LADCO is not a regulatory agency responsible for implementing emissions controls. Furthermore, Illinois did not provide any information on any planned emission reductions, or evaluation of control strategies that the LADCO states intend to implement within their domain, that would reduce either the ozone concentrations or Illinois' contributions at the nonattainment or maintenance monitors to which IEPA identified Illinois as linked. IEPA's basis for concluding that LADCO participation may relieve Illinois of any good neighbor obligations to downwind receptors is entirely unsubstantiated and does not present any basis on which EPA can approve IEPA's SIP submittal. As such, EPA proposes to find Illinois' LADCO participation as inadequate to resolve Illinois' good neighbor obligations for the 2015 ozone NAAQS.

[64] Design values and contributions at individual monitoring sites nationwide are provide in the file:'' 2016v2_DVs_state_contributions.xlsx'' which is included in docket ID No. EPA–HQ–OAR–2021–0663.

[65] These modeling results are consistent with the results of a prior round of 2023 modeling using the 2016v1 emissions platform which became available to the public in the fall of 2020 in the Revised CSAPR Update, as noted in Section I. That modeling showed that Illinois had a maximum contribution greater than 0.70 ppb to at least one nonattainment or maintenance-only receptor in 2023. These modeling results are included in the file ''Ozone Design Values And Contributions Revised CSAPR Update.xlsx'' in docket ID No. EPA–HQ–OAR–2021–0663.

The submittal also stated that Illinois is developing new NO_X RACT standards for the Chicago area that, in conjunction with existing regulations and future Federal reductions, are estimated to reduce NO_X emissions by up to 20,000 tons/year which had not yet been reflected in modeling to 2023. However, Illinois failed to provide any information on the control measures or implementation schedule that would achieve the estimated 20,000 tons/year in reductions. IEPA did not quantify how the emissions reductions they estimated would impact air quality at downwind receptors or Illinois' contributions. In fact, Illinois has not yet finalized the NO_X RACT rule for Chicago. In general, any changes in the emissions inventory and on-the-books controls relevant to emissions in 2023 have now been incorporated into EPA's modeling using the 2016v2 emissions platform, which projects a continuing contribution from Illinois to out of state receptors above a threshold of 1 percent of the NAAQS (at Steps 1 and 2) despite these measures. Therefore, IEPA's SIP submission should have evaluated the availability of *additional* air quality controls to improve downwind air quality at nonattainment and maintenance receptors at Step 3.

Additionally, states may not rely on non-SIP measures to meet SIP requirements. *See* CAA section 110(a)(2)(D) (''Each such [SIP] shall . . . contain adequate provisions . . . .''). *See also* CAA section 110(a)(2)(A); *Committee for a Better Arvin* v. *U.S. E.P.A.,* 786 F.3d 1169, 1175–76 (9th Cir. 2015) (holding that measures relied on by state to meet CAA requirements must be included in the SIP). IEPA did not attempt to revise Illinois' SIP to include these measures in order to implement its good neighbor obligations. Further, the listing of existing or on-the-way control measures, whether approved into the State's SIP or not, does not substitute for a complete Step 3 analysis under EPA's 4-step framework to define ''significant contribution.'' IEPA did not identify the control measures, provide an assessment of the overall effects of these measures, note when the reductions would be achieved, or explain what the overall resulting air quality effects would be at identified out of state receptors. IEPA did not evaluate additional, potential emissions control opportunities, or their costs or impacts, or attempt to analyze whether, if applied more broadly across linked states, the emissions reductions would constitute the elimination of significant contribution on a regional scale. IEPA did not offer an explanation as to whether any faster or more stringent emissions reductions that may be available were prohibitively costly or infeasible. Although EPA acknowledges states are not necessarily bound to follow its own analytical framework at Step 3, IEPA did not attempt to determine or justify an appropriate uniform cost-effectiveness threshold for the more stringent 2015 ozone NAAQS. This would have been similar to the approach to defining significant contribution that EPA has applied in prior rulemakings such as CSAPR and or the CSAPR Update, even if such an analysis is not technically mandatory.

Finally, under the *Wisconsin* decision, states and EPA may not delay implementation of measures necessary to address good neighbor requirements beyond the next applicable attainment date without a showing of impossibility or necessity. *See* 938 F.3d at 320. The IEPA's submittal is insufficient to the extent the implementation timeframes for identified control measures were left unidentified, unexplained, or too uncertain to permit EPA to form a judgment as to whether the timing requirements for good neighbor obligations have been met.

IEPA also attempted to rely on a concept related to international emissions identified in Attachment A to the March 2018 memorandum—a concept that apparently had its origins outside EPA and was not endorsed or recommend by EPA at the time or since. IEPA noted that Illinois would be linked to only one receptor if international and offshore emissions were simply subtracted from the receptor's maximum design values. As explained in Section I.D above, the concepts presented in Attachment A to the March 2018 memorandum were neither guidance nor determined by EPA to be consistent with the CAA. EPA made clear at the time that it would thoroughly review the technical and legal justifications states put forward in relying on any concepts from Attachment A to the March 2018 memorandum. In this case, what IEPA proposes is clearly unacceptable.

The state's reasoning related to international and offshore emissions is inapplicable to the requirements of CAA section 110(a)(2)(D)(i)(I). The good neighbor provision requires states and EPA to address interstate transport of air pollution that contributes to downwind states' ability to attain and maintain NAAQS. Whether emissions from other states or other countries also contribute to the same downwind air quality issue is irrelevant in assessing whether a downwind state has an air quality problem, or whether an upwind state is significantly contributing to that problem. States are not obligated under CAA section 110(a)(2)(D)(i)(I) to reduce emissions sufficient on their own to resolve downwind receptors' nonattainment or maintenance problems. Rather, states are obligated to eliminate their own ''significant contribution'' or ''interference'' with the ability of other states to attain or maintain the NAAQS.

Indeed, the D.C. Circuit in *Wisconsin* specifically rejected petitioner arguments suggesting that upwind states should be excused from good neighbor obligations on the basis that some other source of emissions (whether international or another upwind state) could be considered the ''but-for'' cause of downwind air quality problem. *See* 938 F.3d at 323–324. The court viewed petitioners' arguments as essentially an argument ''that an upwind state 'contributes significantly' to downwind nonattainment only when its emissions are the sole cause of downwind nonattainment.'' *Id.* at 324. The court explained that ''an upwind state can 'contribute' to downwind nonattainment even if its emissions are not the but-for cause.'' *Id.* at 324–325. *See also Catawba County* v. *EPA,* 571 F.3d 20, 39 (D.C. Cir. 2009) (rejecting the argument ''that 'significantly contribute' unambiguously means 'strictly cause' '' because there is ''no reason why the statute precludes EPA from determining that [an] addition of [pollutant] into the atmosphere is significant even though a nearby county's nonattainment problem would still persist in its absence''); *Miss. Comm'n on Envtl. Quality* v. *EPA,* 790 F.3d 138, 163 n.12 (D.C. Cir. 2015) (observing that the argument that ''there likely would have been no violation at all . . . if it were not for the emissions resulting from [another source]'' is ''merely a rephrasing of the but-for causation rule that we rejected in *Catawba County*''). Therefore, a state is not excused from eliminating its significant contribution on the basis that international emissions also contribute some amount of pollution to the same receptors to which the state is linked. Illinois' argument related to international and offshore emissions fails to change the status of any receptor at Step 1, to eliminate Illinois' linkages at Step 2, or to provide sufficient evidence that Illinois does not contribute significantly to receptors at Step 3.

We therefore propose that Illinois was required to analyze emissions from the sources and other emissions activity from within the state to determine whether its contributions were

significant, and we propose to disapprove its submission because Illinois failed to do so.

5. Evaluation of Information Provided Regarding Step 4

Step 4 of the 4-step interstate transport framework calls for development of permanent and federally enforceable control strategies to achieve the emissions reductions determined to be necessary at Step 3 to eliminate significant contribution to nonattainment or interference with maintenance of the NAAQS. IEPA identified future NO_X RACT standards for the Chicago area and unnamed Federal rules were sufficient to resolve Illinois' good neighbor obligations for the 2015 ozone NAAQS. However, Illinois did not revise its SIP to include these emission reductions in a revision to its SIP to ensure the reductions were permanent and enforceable. As a result, EPA proposes to disapprove Illinois' submittal on the separate,[66] additional basis that the Illinois has not included permanent and enforceable emissions reductions in its SIP as necessary to meet the obligations of CAA section 110(a)(2)(d)(i)(I).

6. Conclusion

Based on EPA's evaluation of Illinois SIP submission, EPA is proposing to find that the portion of Illinois' May 21, 2018 SIP submission addressing CAA section 110(a)(2)(D)(i)(I) does not meet the state's interstate transport obligations, because it fails to contain the necessary provisions to eliminate emissions that will contribute significantly to nonattainment or interfere with maintenance of the 2015 ozone NAAQS in any other state.

B. Indiana

1. Evaluation of Information Provided by Indiana Regarding Step 1

IDEM relied on LADCO modeling released in 2018 to identify nonattainment and maintenance receptors in 2023. As described previously in this action, LADCO performed a modeling demonstration like that of EPA's 2018 transport modeling efforts, except with use of the ERTAC EGU Tool for EGU emissions. LADCO identified nonattainment and maintenance receptors using EPA methodology identified in Section I. IDEM elected to rely on LADCO's modeling results, which identified similar receptors to EPA's modeling included in the March 2018 memo. Since new modeling has been performed by EPA which includes updated emission data using the 2016v2 platform, EPA proposes to primarily rely on the most recent modeling to identify nonattainment and maintenance receptors in 2023 (see Table 3 further in this action).

Nonetheless, the LADCO modeling relied on by IDEM also identified a number of nonattainment and maintenance receptor sites in 2023. *See* Table 7 on page 30 of Attachment 1 to Indiana's submittal. Thus, even under the LADCO modeling for 2023, IDEM acknowledges in its submittal the existence of several nonattainment and maintenance receptors.

IDEM essentially argues that two of the receptors to which Indiana was linked would not actually be receptors in 2023. Based on updated modeling of EPA's 2016v2 emissions platform, EPA agrees with IDEM that that the Allegan, Michigan monitor is not expected to be a receptor in 2023, but not the receptor in Sheboygan, Wisconsin. Regardless, EPA disagrees with the line of reasoning IDEM put forward to argue that those two monitors would not be receptors to the extent such reasoning could be applied to Indiana's linkages in EPA's modeling using the 2016v2 emissions platform. First, IDEM concluded that if ozone design value trends continued as expected then those two receptors would reach attainment before 2023. In addition, IDEM compared 2012–2017 monitoring data with LADCO's and EPA's modeling and concluded that the Sheboygan, Wisconsin and Allegan, Michigan receptor monitors were already below the 2023 projections. Additionally, EPA's updated modeling, which considers more recent design values and emissions, continues to find that Indiana is linked to downwind nonattainment and maintenance receptors, despite downward trends in emissions and design values

2. Evaluation of Information Provided by the State Regarding Step 2

Although Indiana relied on alternative modeling to EPA's modeling, Indiana acknowledged in its SIP submission that it is linked to one or more downwind receptors above either a 1 percent of the NAAQS or 1 ppb contribution threshold in 2023. Because the alternative modeling relied on by IDEM also demonstrates that a linkage exists between the state and one or more downwind receptors at Step 2, EPA need not conduct a comparative assessment of the alternative modeling; the State concedes that it is linked. IDEM's analysis corroborates the conclusion in EPA's most recent modeling, described in the next section.

IDEM additionally utilized a 1 ppb threshold at Step 2 to identify whether it was linked to a projected downwind nonattainment or maintenance receptor. As discussed in EPA's August 2018 memorandum, with appropriate additional analysis it may be reasonable for states to use a 1 ppb contribution threshold, as an alternative to a 1 percent threshold, at Step 2 of the 4-Step interstate transport framework, for the purposes of identifying linkages to downwind receptors. However, IDEM's submission did not contain any additional analysis of contributions at the receptors to which they were linked to support their claim that a 1 ppb threshold was an appropriate Step 2 screening threshold. Rather, IDEM claimed that a threshold of 1 percent was too low because it is less than the ozone monitoring ''tolerance level'' of 1 ppb (*i.e.,* precision) used for reporting measured ozone concentrations. In its submittal IDEM failed to provide any basis for asserting that the precision of an ozone monitor is applicable to the precision of ozone contributions which are not a directly measured quantity. Regardless, total upwind contributions are well above 1 ppb at all receptors to which Indiana is linked based on modeling by LADCO and by EPA. In addition, Indiana alone contributes above 1 ppb to several downwind receptors. Because contributions are not directly measured, modeling is used to apportion projected ozone design values into contributions from individual states and other sources of ozone precursors (*e.g.,* fires and biogenic sources). The projected ozone design values are calculated using the method recommended in EPA's modeling guidance.[67] As part of this method, projected design values are reported with a precision of a tenth of a ppb. Consistent with our modeling guidance, ozone contributions are evaluated with a precision of a tenth of a ppb. For example, a contribution of 0.6999 . . . ppb is reported as 0.69 ppb and evaluated as 0.6 ppb which is below the 1 percent threshold.

Indiana seemingly conflates the contribution threshold at Step 2 with a Step 3 determination of ''significance'' (which is reached only after the application of a multi-factor analysis), regardless EPA does not accept

[66] Pointing to anticipated upcoming emission reductions is not sufficient as a step 3 analysis, for the reasons discussed in Section 4. In this section, we explain that to the extent such anticipated reductions are not included in the SIP and rendered permanent and enforceable, reliance on such anticipated reductions is also insufficient at step 4.

[67] Modeling Guidance for Demonstrating Air Quality Goals for Ozone, $PM_{2.5}$, and Regional Haze. November 2018. EPA 454–R–18–009. *https://www.epa.gov/scram/sip-modeling-guidance-documents.*

Indiana's argument that a 1 percent of the NAAQS contribution threshold at Step 2 is ''not appropriate'' for the 2015 ozone NAAQS on the basis of unwarranted modeling reliability concerns.[68] The explanation for how the 1 percent contribution threshold was originally derived is available in the 2011 CSAPR rulemaking. *See* 76 FR 48208, 48237–38. Further, in the CSAPR Update, EPA re-analyzed the threshold for purposes of the 2008 ozone NAAQS and determined it was appropriate to continue to apply this threshold. EPA compared the 1 percent threshold to a 0.5 percent of NAAQS threshold and a 5 percent of NAAQS threshold. EPA found that the lower threshold did not capture appreciably more upwind state contribution compared to the 1 percent threshold, while the 5 percent threshold allowed too much upwind state contribution to drop out from further analysis. *See* Final CSAPR Update Air Quality Modeling TSD, at 27–30 (EPA–HQ–OAR–2015–0596–0144). If EPA were to apply this analysis to the 2015 ozone NAAQS using the updated modeling based on the 2016v2 emissions platform, a 5 percent of the NAAQS contribution threshold would forgo nearly 30 percent of the total upwind contribution, on average, for those receptors to which Indiana is linked using a 1 percent threshold. As EPA noted in the August 2018 memorandum, the use of even a 2 ppb contribution threshold under the modeling released with the March 2018 memorandum would only capture about 55 percent of all upwind contributions, and therefore ''emission reductions from states linked at that higher threshold may be insufficient to address collective upwind state contribution to downwind air quality problems.'' [69]

With these figures in mind, IDEM's claims that the contribution threshold should be substantially higher than 1 or even 2 ppb solely on the basis of modeling uncertainty cannot be accepted. First, both IDEM's and EPA's modeling techniques are sufficiently reliable and fit for the purpose to measure upwind contribution levels down to at least one percent of the NAAQS. EPA's recommended model attainment test is based on application of the model in a relative sense rather than relying upon absolute model predictions.[70] All models have limitations resulting from uncertainties in inputs and scientific formulation. To minimize the effects of these uncertainties, the modeling is anchored to base period measured data in EPA's guidance approach for projecting design values. Notably, EPA also uses our source apportionment modeling in a relative sense when calculating the average contribution metric (used to identify linkages). In this method the magnitude of the contribution metric is tied to the magnitude of the projected average design value which is tied to the base period average measured design value. EPA's guidance has not established a bright-line criteria for judging whether or not statistical measures of model performance constitute acceptable or unacceptable model performance. So, contrary to what Indiana appears to be claiming with regards to modeling biases, there are no EPA recommended measures of allowable error. Although EPA does not typically focus on using particular benchmarks as the sole criteria for model performance, EPA notes that the model performance for the updated modeling based on the 2016v2 emissions platform is generally within the benchmarks recommended by Emery, et al., (2017).[71]

EPA has successfully applied a 1 percent of NAAQS threshold to identify linked upwind states in three prior rulemakings. And the D.C. Circuit has declined to establish bright line criteria for model performance. In upholding EPA's approach to evaluating interstate transport in CSAPR, the Supreme Court held that they would not ''invalidate EPA's predictions solely because there might be discrepancies between those predictions and the real world. That possibility is inherent in the enterprise of prediction.'' *EME Homer City Generation, L.P.* v. *EPA,* 795 F.3d 118, 135 (2015). The court continued to note that ''the fact that a 'model does not fit every application perfectly is no criticism; a model is meant to simplify reality in order to make it tractable.' '' *Id.* at 135–36 (quoting *Chemical Manufacturers Association* v. *EPA,* 28 F.3d 1259, 1264 (D.C. Cir. 1994).

EPA's August 2018 memorandum provided that whether use of a 1 ppb threshold is appropriate must be based on an evaluation of state-specific circumstances, and no such evaluation was included in the submission. EPA's experience with the alternative Step 2 thresholds is further discussed in Section I.D.3.i. As discussed there, EPA is considering withdrawing the August 2018 memorandum.

3. Results of EPA's Step 1 and Step 2 Modeling and Findings for Indiana

As described in Section I, EPA performed air quality modeling using the 2016v2 emissions platform to project design values and contributions for 2023. These data were examined to determine if Indiana contributes at or above the threshold of 1 percent of the 2015 ozone NAAQS (0.70 ppb) to any downwind nonattainment or maintenance receptor. As shown in Table 3, the data [72] indicate that in 2023, emissions from Indiana contribute greater than 1 percent of the standard to nonattainment or maintenance-only receptors in Wisconsin, Illinois, Connecticut, and Pennsylvania.[73]

TABLE 3—INDIANA LINKAGE RESULTS BASED ON EPA UPDATED 2023 MODELING

Receptor ID	Location	Nonattainment/maintenance	2023 Average design value (ppb)	2023 Maximum design value (ppb)	Indiana contribution (ppb)
550590025	Kenosha, WI	Maintenance	69.2	72.3	7.10
170310032	Cook, IL	Maintenance	69.8	72.4	7.03

[68] Indiana's SIP submission, Attachment 1 at 4.

[69] August 2018 memorandum at 4.

[70] See Section 4.1' ''Overview of Modeled Attainment Test in EPA Modeling Guidance for Demonstrating Air Quality Goals for Ozone, $PM_{2.5}$, and Regional Haze. November 2018. EPA 454–R–18–009. *https://www.epa.gov/scram/sip-modeling-guidance-documents.*

[71] Christopher Emery, Zhen Liu, Armistead G. Russel, M. Talat Odman, Greg Yarwood and Naresh Kumar (2017). Recommendations on statistics and benchmarks to assess photochemical model performance, Journal of the Air & Waste Management Association, 67:5,582–598, *DOI: 10.1080/10962247.2016.1265027.*

[72] Design values and contributions at individual monitoring sites nationwide are provide in the file: 2016v2_DVs_state_contributions.xlsx which is included in docket ID No. EPA–HQ–OAR–2021–0663.

[73] These modeling results are consistent with the results of a prior round of 2023 modeling using the 2016v1 emissions platform which became available to the public in the fall of 2020 in the Revised CSAPR Update, as noted in Section I. That modeling showed that Indiana had a maximum contribution greater than 0.70 ppb to at least one nonattainment or maintenance-only receptor in 2023. These modeling results are included in the file ''Ozone Design Values And Contributions Revised CSAPR Update.xlsx'' in docket ID No. EPA–HQ–OAR–2021–0663.

TABLE 3—INDIANA LINKAGE RESULTS BASED ON EPA UPDATED 2023 MODELING—Continued

Receptor ID	Location	Nonattainment/maintenance	2023 Average design value (ppb)	2023 Maximum design value (ppb)	Indiana contribution (ppb)
550590019	Kenosha, WI	Nonattainment	72.8	73.7	6.60
551010020	Racine, WI	Nonattainment	71.3	73.2	6.60
170317002	Cook, IL	Maintenance	70.1	73.0	6.33
170310076	Cook, IL	Maintenance	69.3	72.1	6.21
170310001	Cook, IL	Maintenance	69.6	73.4	5.44
170314201	Cook, IL	Maintenance	69.9	73.4	4.65
90099002	New Haven, CT	Nonattainment	71.8	73.9	0.87
90019003	Fairfield, CT	Nonattainment	76.1	76.4	0.76
90013007	Fairfield, CT	Nonattainment	74.2	75.1	0.75
420170012	Bucks, PA	Maintenance	70.7	72.2	0.73

Therefore, based on EPA's evaluation of the information submitted by IDEM, and based on EPA's most recent modeling results for 2023, EPA proposes to find that Indiana is linked at Steps 1 and 2 and has an obligation to assess potential emissions reductions from sources or other emissions activity at Step 3 of the 4-Step framework. EPA therefore will proceed to Step 3 of the 4-Step interstate transport framework to assess the arguments the State presented as to why, despite this linkage, the state should not be considered to significantly contribute to nonattainment or interfere with maintenance of the NAAQS in any other state.

4. Evaluation of Information Provided Regarding Step 3

At Step 3 of the 4-Step interstate transport framework, a state's emissions are further evaluated, in light of multiple factors, including air quality and cost considerations, to determine what, if any, emissions significantly contribute to nonattainment or interfere with maintenance and, thus, must be eliminated under CAA section 110(a)(2)(D)(i)(I).

To effectively evaluate which emissions in the state should be deemed ''significant'' and therefore prohibited, states generally should prepare an accounting of sources and other emissions activity for relevant pollutants and assess potential, additional emissions reduction opportunities and resulting downwind air quality improvements. EPA has consistently applied this general approach (*i.e.,* Step 3 of the 4-Step interstate transport framework) when identifying emissions contributions that the Agency has determined to be ''significant'' (or interfere with maintenance) in each of its prior Federal, regional ozone transport rulemakings, and this interpretation of the statute has been upheld by the Supreme Court. *See EME Homer City,* 572 U.S. 489, 519 (2014). While EPA has not directed states that they must conduct a Step 3 analysis in precisely the manner EPA has done in its prior regional transport rulemakings, state implementation plans addressing the obligations in CAA section 110(a)(2)(D)(i)(I) must prohibit ''any source or other type of emissions activity within the state'' from emitting air pollutants which will contribute significantly to downwind air quality problems. Thus, states must complete something similar to EPA's analysis (or an alternative approach to defining ''significance'' that comports with the statute's objectives) to determine whether and to what degree emissions from a state should be ''prohibited'' to eliminate emissions that will ''contribute significantly to nonattainment in, or interfere with maintenance of'' the NAAQS in any other state. IDEM did not conduct such an analysis in their SIP submission.

IDEM first asserted that Indiana's rule amendments under CSAPR meant that Indiana was already meeting the good neighbor requirements for the 2015 ozone NAAQS. The submittal, however, did not contain a demonstration at Step 3 that the State was adequately controlling its emissions for purposes of the good neighbor provision, particularly because the State conceded in its submission that it was potentially significantly contributing to one or more receptors in 2023 at Steps 1 and 2. The SIP submittal pointed to the state's existing NO_X control measures, consent decree requirements, and future fuel switches and retirements for large EGUs and non-EGUs for the years 2008 through 2017 to conclude Indiana is already meeting its good neighbor obligations for the 2015 ozone NAAQS.

However, the state's submittal does not include a sufficient examination or a technical justification that could support the conclusion that the state has no further good neighbor obligations for the 2015 ozone NAAQS. In particular, the state did not conduct in its submittal an analysis of potential additional emissions reductions measures to further reduce its impact on the identified downwind receptors. For example, although Indiana did include in its submission a list of controls at individual emissions units at facilities in the state, IDEM did not analyze additional potential NO_X emissions control technologies, their associated costs, estimated emissions reductions, and downwind air quality improvements. Nor does the submittal include an analysis of whether such potential, additional control technologies or measures could reduce the impact of Indiana's emissions on out of state receptors. Though there is not a prescribed method for a Step 3 analysis, EPA has consistently applied Step 3 of the good neighbor framework through a more rigorous evaluation of potential additional control technologies or measures than what Indiana provided in its submission. Identifying a range of various emissions control measures that have been or may be enacted at the state level, without analysis of the impact of those measures on the out of state receptors, is not analytically sufficient. In general, the air quality modeling that EPA has conducted (as well the modeling relied on by Indiana in its submittal) already accounts for ''on-the-books'' emissions control measures. Both sets of modeling clearly establish continued linkage from Indiana to downwind receptors in 2023 at Steps 1 and 2, despite those emissions control efforts.

IDEM provided what they characterized as a weight of evidence analysis consisting of monitoring data, emissions data, and photochemical modeling to justify their conclusion that no additional emission reductions would be necessary to satisfy Indiana's ozone transport obligations. First, IDEM

presented evidence of downward trends of statewide ozone concentrations and emissions, as well as a decrease in projected EGU emissions in 2023 relative to 2011. Despite these trends, however, the LADCO modeling that Indiana depended on for its submittal still identified that Indiana would contribute over 1 ppb to one or more receptors in 2023.

As for downwind design value trends, EPA disagrees that IDEM's reliance on trends data to conclude that the Harford, Maryland and Richmond, New York monitors would reach attainment ''over time'' is sufficient to support a conclusion that Indiana has no good neighbor obligations. The states and EPA are to address interstate transport obligations ''as expeditiously as practicable'' and no later than the attainment schedule set in accordance with CAA section 181(a). *See North Carolina,* 531 F.3d at 911–13; *Wisconsin,* 938 F.3d at 313–20; *Maryland,* 958 F.3d at 1204; *New York* v. *EPA,* 964 F.3d 1214, 1226 (D.C. Cir. 2020); *New York* v. *EPA,* 781 Fed. App'x 4, 6–7 (D.C. Cir. 2019). IDEM asserted that EGUs are well controlled in Indiana and cited several state and Federal regulations that EGUs may be subject to in Indiana. In general, however, the listing of existing or on-the-way control measures, whether approved into the state's SIP or not, does not substitute for a complete Step 3 analysis under EPA's 4-Step framework to define ''significant contribution.'' IDEM did not provide an assessment of the overall effects of the identified control measures or explain what the overall resulting air quality effects would be at identified out of State receptors. IDEM did not perform an analysis of all large NO_X emitting EGU for factors that may affect the facilities' emissions, including but not limited to allowance prices, fuel prices, and enforceable limits. IDEM did not evaluate additional, potential emissions control opportunities, or their costs or impacts, or attempt to analyze whether, if applied more broadly across linked states, the emissions reductions would constitute the elimination of significant contribution on a regional scale. IDEM did not offer an explanation as to whether any faster or more stringent emissions reductions that may be available were prohibitively costly or infeasible. Although EPA acknowledges states are not necessarily bound to follow its own analytical framework at Step 3, IDEM did not attempt to determine or justify an appropriate uniform cost-effectiveness threshold. This would have been similar to the approach to defining significant contribution that EPA has applied in prior rulemakings such as CSAPR and or the CSAPR Update, even if such an analysis is not technically mandatory. As discussed previously, both the LADCO modeling relied on by the state and EPA's updated modeling indicates sources in Indiana are linked to downwind air quality problems for the 2015 ozone standard. However, Indiana's SIP submittal did not include an analysis of potential NO_X emissions control technologies, associated costs, estimated emissions reductions, and downwind air quality in order to determine whether the State had eliminated the State's downwind contribution in amounts which will significantly contribute to nonattainment or interfere with maintenance. Thus, EPA proposes to disapprove Indiana's SIP submission on the separate, additional basis that the SIP submittal did not assess additional emission control opportunities.

IDEM concluded it is not cost-effective to evaluate and implement controls on non-EGUs in the state on the sole basis that the majority of NO_X emissions in the state come from EGUs. EPA cannot accept the assertion as it is insufficiently supported. Cost-effectiveness must be assessed in the context of the specific CAA program; assessing cost-effectiveness in the context of ozone transport should reflect a more comprehensive evaluation of the nature of the interstate transport problem, the total emissions reductions available at several cost thresholds, and the air quality impacts of the reductions at downwind receptors. EPA notes that there are as many as two dozen non-EGU facilities in Indiana with more than 300 tons per year of NO_X emissions each, but IDEM did not analyze control opportunities at these sources at all in the SIP submission.

IDEM also argued that additional emissions reductions from EGU and non-EGU sources in Indiana ''are getting more difficult to mandate'' because of reduced effectiveness of controls to make significant decreases in ozone values, operational concerns, and increased costs for customers.[74] Again, the SIP submission does not contain sufficient evidence to support that conclusion. IDEM did not identify controls that had reduced effectiveness or explain why they believed they had reduced effectiveness. IDEM did not describe what any operational concerns were for any controls, nor did IDEM provide any information to support their claim that controls would increase costs for consumers. While Indiana's existing control measures have undoubtedly reduced the amount of transported ozone pollution to other states and have contributed to the downward emissions trends and improving air quality in the State as shown in the state's SIP submittal, in the Revised CSAPR Update, EPA's analysis found that despite Indiana's existing control programs, additional emissions reductions were achievable from EGUs in the state, even under the level of control stringency EPA determined appropriate to eliminate significant contribution for the 2008 ozone NAAQS. In any case, EPA has not established a benchmark cost-effectiveness threshold for good neighbor obligations for the 2015 ozone NAAQS, and IDEM in its submittal has not conducted an analysis to establish one for EPA to evaluate.

IDEM also identified several planned retirements or retrofits to coal fired EGUs in Indiana that were not included in any modeling available at the time of Indiana's submission and stated they would reduce emissions several thousand tons beyond the modeling. Further, EPA's assessment of future air quality conditions generally accounts for on-the-books emission reductions and the most up-to-date forecast of future emissions in the absence of the transport policy being evaluated (*i.e.,* base case conditions).[75] As described in more detail in Section I, EPA's latest projections of the baseline EGU emissions uses the version 6—Summer 2021 Reference Case of the IPM. The IPM version 6—Summer 2021 Reference Case uses the NEEDS v6 database as its source for data on all existing and planned-committed units. Units are removed from the NEEDS inventory only if a high degree of certainty could be assigned to future implementation of the announced future closure or retirement. Any retirements excluded from the NEEDS v6 inventory can be viewed in the NEEDS spreadsheet.[76] EPA looked into the upcoming retirements cited by IDEM and following the guidelines regarding retirements for the IPM version—6 Summer 2021 Reference Case certain units are not excluded from the NEEDS v6 inventory. There are other retirements that were not included in the SIP submission that were excluded

[74] Indiana's SIP submission, Attachment 1 at 37.

[75] *See* 81 FR 74504 at 74517; 85 FR 68964 at 68979.

[76] The ''Capacity Dropped'' and the ''Retired Through 2023'' worksheets in NEEDS lists all units that are removed from the NEEDS v6 inventory—NEEDS v6 Summer 2021 Reference Case. This data can be found on EPA's website at: *https://www.epa.gov/airmarkets/national-electric-energy-data-system-needs-v6.*

from the NEEDS v6 inventory for the 2023 projections. This includes retirements at AES Petersburg, Merom, and RM Schahfer. In other words, in general, any changes in the emissions inventory and on-the-books controls relevant to emissions in 2023 have now been incorporated into the EPA's modeling using the 2016v2 emissions platform, which projects a continuing contribution from Indiana to out of state receptors above a threshold of 1 percent of the NAAQS (at Steps 1 and 2) despite these measures. Therefore, in light of continuing contribution to out of state receptors from Indiana notwithstanding these identified retirements, IDEM's SIP submission should have evaluated the availability of additional air quality controls to improve downwind air quality at nonattainment and maintenance receptors at Step 3 Furthermore, under the Wisconsin decision, states and EPA may not delay implementation of measures necessary to address good neighbor requirements beyond the next applicable attainment date without a showing of impossibility or necessity. See 938 F.3d at 320. The IDEM's submittal is insufficient to the extent the implementation timeframes for several claimed expected shutdowns were left unidentified, unexplained, or too uncertain to permit EPA to form a judgment as to whether the timing requirements for good neighbor obligations have been met.

Additionally, IDEM explained in only the most general terms how the unaccounted emissions reductions would influence downwind air quality or Indiana's contributions to other state. IDEM also did not quantify how the emissions reductions they estimated would impact air quality at downwind receptors or Indiana's contributions. IDEM did not demonstrate that the downwind improvements from these regulations and programs would be sufficient to eliminate Indiana's linkages or prohibit the State's emissions in amounts that will contribute significantly to nonattainment or interfere with maintenance of the NAAQS in any other state.

IDEM also made several arguments related to potential flexibilities identified in Attachment A to the March 2018 memorandum.[77] As explained previously in Section I, the concepts presented in Attachment A to the March 2018 memorandum were neither guidance nor determined by EPA to be consistent with the CAA. EPA will thoroughly review the technical and legal justifications IDEM put forward in their attempt to use a potential flexibility from Attachment A to the March 2018 memorandum.

IDEM suggested that local emissions reductions from the jurisdiction where downwind receptors are located should first be implemented and accounted for before imposing obligations on upwind states under the interstate transport provision. IDEM represented that EPA had concluded that monitors in the Northeast ''are impacted from more local emissions'' by citing a May 14, 2018 presentation. The purpose of that presentation was to share a technical, exploratory analysis of ozone trends. IDEM misrepresented the contents of the presentation, which labeled the results as ''preliminary'' and indicated that ''[f]urther exploration of the relative contribution from various source sectors within the NE Corridor and in nearby upwind states might also be informative.'' [78] These preliminary results of that analysis are generally consistent with EPA's updated modeling using the 2016v2 emissions platform. Although EPA's modeling shows that a large portion of the transport problem affecting the receptors in Coastal Connecticut is indeed from sources within the Ozone Transport Region (OTR), a substantial portion of the transport problem at these receptors, on the order of 25 percent, is the result of transport from states outside the OTR. However, the relevance of that presentation to the evaluation of Indiana's good neighbor obligations is not clear. As already discussed, the statute and the case law (particularly the holdings in *Wisconsin* and *Maryland*) make clear that good neighbor obligations are not merely supplementary to or deferable until after local emission reductions are achieved. Further, based on EPA's modeling released with the March 2018 memorandum, nearly all of the receptors to which Indiana is linked are also heavily impacted by distant upwind state emissions in addition to local sources and sources in neighboring states. The *Wisconsin* decision's holding in regard to international contribution (discussed in more detail later) is equally applicable to an upwind state's claims that some other state's emissions, or local emissions, are more to blame than its own emissions. *See* 938 F.3d 303 at 323–25 (''an upwind state can 'contribute' to downwind nonattainment even if its emissions are not the but-for cause'').

There is nothing in the CAA that supports Indiana's position on local sources, and Indiana does not provide grounds on which to approve its SIP submission. The D.C. Circuit has held on five different occasions that the timing framework for addressing interstate transport obligations must be consistent with the downwind areas' attainment schedule. In particular, for the ozone NAAQS, the states and EPA are to address interstate transport obligations ''as expeditiously as practicable'' and no later than the attainment schedule set in accordance with CAA section 181(a). *See North Carolina,* 531 F.3d at 911–13; *Wisconsin,* 938 F.3d at 313–20; *Maryland,* 958 F.3d at 1204; *New York* v. *EPA,* 964 F.3d 1214, 1226 (D.C. Cir. 2020); *New York* v. *EPA,* 781 Fed. App'x 4, 6–7 (D.C. Cir. 2019). The court in *Wisconsin* explained its reasoning in part by noting that downwind jurisdictions often may need to heavily rely on emissions reductions from upwind states in order to achieve attainment of the NAAQS, 938 F.3d at 316–17; such states would face increased regulatory burdens including the risk of bumping up to a higher nonattainment classification if attainment is not reached by the relevant deadline, *Maryland,* 958 F.3d at 1204. The statutory framework of the CAA and these cases establish clearly that states and EPA must address interstate transport obligations in line with the attainment schedule provided in the CAA in order to timely assist downwind states in attaining and maintain the NAAQS, and this schedule is ''central to the regulatory scheme.'' *Wisconsin,* 938 F.3d at 316 (quoting *Sierra Club* v. *EPA,* 294 F.3d 155, 161 (D.C. Cir. 2002)).

IDEM similarly suggested that international and offshore emissions contributions should be part of the good neighbor calculus. IDEM's reasoning related to international and offshore emissions is inapplicable to the requirements of CAA section 110(a)(2)(D)(i)(I). The good neighbor provision requires states and EPA to address interstate transport of air pollution that contributes to downwind states' ability to attain and maintain NAAQS. Whether emissions from other states or other countries also contribute to the same downwind air quality issue is irrelevant in assessing whether a downwind state has an air quality problem, or whether an upwind state is significantly contributing to that problem. States are not obligated under CAA section 110(a)(2)(D)(i)(I) to reduce

[77] Based on the reference to the potential flexibilities in Attachment A to the March 2018 memorandum on page 2 of Attachment 1 to Indiana's SIP submission, EPA assumes the reference to ''flexibilities'' on page 38 of Attachment 1 likewise references Attachment A to the March 2018 memorandum.

[78] Indiana's SIP submission, Appendix E at 4, 17.

emissions sufficient on their own to resolve downwind receptors' nonattainment or maintenance problems. Rather, states are obligated to eliminate their own ''significant contribution'' or ''interference'' with the ability of other states to attain or maintain the NAAQS.

Indeed, the D.C. Circuit in *Wisconsin* specifically rejected petitioner arguments suggesting that upwind states should be excused from good neighbor obligations on the basis that some other source of emissions (whether international or another upwind state) could be considered the ''but-for'' cause of downwind air quality problem. *See* 938 F.3d at 323–324. The court viewed petitioners' arguments as essentially an argument ''that an upwind state 'contributes significantly' to downwind nonattainment only when its emissions are the sole cause of downwind nonattainment.'' *Id.* at 324. The court explained that ''an upwind state can 'contribute' to downwind nonattainment even if its emissions are not the but-for cause.'' *Id.* at 324–325. *See also Catawba County* v. *EPA,* 571 F.3d 20, 39 (D.C. Cir. 2009) (rejecting the argument ''that 'significantly contribute' unambiguously means 'strictly cause''' because there is ''no reason why the statute precludes EPA from determining that [an] addition of [pollutant] into the atmosphere is significant even though a nearby county's nonattainment problem would still persist in its absence''); *Miss. Comm'n on Envtl. Quality* v. *EPA,* 790 F.3d 138, 163 n.12 (D.C. Cir. 2015) (observing that the argument that ''there likely would have been no violation at all . . . if it were not for the emissions resulting from [another source]'' is ''merely a rephrasing of the but-for causation rule that we rejected in *Catawba County*''). Therefore, a state is not excused from eliminating its significant contribution on the basis that international emissions also contribute some amount of pollution to the same receptors to which the state is linked.

IDEM also calculated Indiana's portion of contribution to the Harford, Maryland receptor was 0.077 ppb, and determined that Indiana would need to reduce its contribution by 0.0077 ppb (based on a contribution threshold of 1 ppb) to bring the Maryland receptor into attainment. IDEM argued that 0.0077 ppb is well within the error of the model and would be ''difficult'' to translate into an emission reduction requirement.[79] We first note that this approach is a deviation from EPA's traditional approach of apportioning upwind-state responsibility at Step 3 using a uniform cost of control metric set at a level that maximizes cost-effectiveness of emissions reductions in relation to downwind state impacts across all linked states. Thus, this is not how EPA has interpreted the statutory term ''significant'' in the past, and EPA does not reach a conclusion whether this approach would be approvable, had IDEM had imposed emissions reductions in line with this logic.

We do not need to reach that point in the analysis, however, because, having selected that approach to defining its obligations, IDEM proceeded to ignore the result. IDEM's submission identified Indiana's proportional contribution as 0.077 ppb to the Harford, Maryland receptor. Having acknowledged Indiana was responsible for eliminating up to 0.0077 ppb of contribution, IDEM claimed that because that amount was within the ''error of the model'' that it would be ''difficult'' to require that amount of reductions from Indiana sources.

This argument does not rise to the level of acceptable proof. EPA has routinely been capable of successfully implementing good neighbor obligations through the CSAPR framework, and achieving significant downwind air quality improvements through upwind-state reductions, at levels of ''significant contribution'' comparable or even less than those found in Indiana's submission, irrespective of alleged modeling errors. *See Wisconsin,* 938 F.3d at 322–23 (rejecting Wisconsin's argument that it should not face good neighbor obligations on the basis that its emission reductions would only improve a downwind receptor by two ten-thousandths of a part per billion).

After measuring Indiana's significant contribution, IDEM suggested that modeling uncertainty was too great to either require emissions reductions. But IDEM had measured the state's significant contribution and was therefore identifying the measurable amount of significant contribution the state was legally responsible for eliminating. *See Michigan* v. *EPA,* 213 F.3d 663, 683–84 (D.C. Cir. 2000) (significant contribution must be ''measurable''). Further, scientific uncertainty may only be invoked to avoid comporting with the requirements of the CAA when ''the scientific uncertainty is so profound that it precludes . . . reasoned judgment'' *Massachusetts* v. *EPA,* 127 S.Ct. 1438 (2007). *See Wisconsin,* 938 F.3d at 318–19 (''Scientific uncertainty, however, does not excuse EPA's failure to align the deadline for eliminating upwind States' significant contributions with the deadline for downwind attainment of the NAAQS.''). *See also EME Homer City,* 795 F.3d 118, 135–36 (''We will not invalidate EPA's predictions solely because there might be discrepancies between those predictions and the real world. That possibility is inherent in the enterprise of prediction.''). IDEM's arguments related to modeling uncertainty do not establish a level of uncertainty so high as to preclude reasoned judgement.

IDEM provided an analysis of back trajectories from the Harford and Richmond receptors to support its contention that Indiana does not contribute significantly to nonattainment or maintenance at those monitors, and that the receptors are more impacted by local emissions anyway. IDEM also relied on an EPA presentation from 2018 to support this conclusion.

As already discussed, the statute and the case law (particularly the holdings in *Wisconsin* and *Maryland*) make clear that good neighbor obligations are not merely supplementary to or deferable until after local emission reductions are achieved. Further, all of the receptors to which Indiana is linked are heavily impacted by upwind state emissions in addition to local sources and conditions. The *Wisconsin* decision's holding in regard to international contribution (discussed previously) is equally applicable to an upwind state's claims that some other state's emissions, or local emissions, are more to blame than its own emissions. *See* 938 F.3d 303 at 323–25 (''an upwind state can 'contribute' to downwind nonattainment even if its emissions are not the but-for cause'').

Further, EPA finds Indiana's back trajectory analysis to be deficient in proving that Indiana does not contribute significantly to nonattainment or maintenance at the Harford and Richmond monitors that the State was linked to in the LADCO modeling. Indiana's back trajectory analysis shows a linkage between Indiana and the monitors when evaluating two altitudes, 10 meters and 750 meters, on several of the exceedance days at these monitoring sites. By only evaluating two altitudes, Indiana neglects to consider the wide range of heights that might show back trajectories leading back to Indiana, potentially further tying the state to more exceedance events. Furthermore, 10 meters is too low of an altitude to measure long range transport and it would have been appropriate for Indiana to analyze several higher altitudes to bolster its back trajectory analysis.

[79] Indiana's SIP submission, Attachment 1 at 42.

Back trajectories alone are not sufficient to disconnect upwind States from downwind receptors. Relying solely on back trajectories for establishing linkages neglects the myriad of factors, most importantly photochemical reactions, that are important for determining the magnitude of ozone and precursor transport from upwind states to downwind receptors. In this regard, EPA and LADCO modeling which accounts for 3 dimensional meteorological conditions, regional emissions, and photochemical reactions is the most complete, and technically sound method to establish linkages between upwind states and downwind nonattainment and maintenance receptors.

The information and claims presented by IDEM did not provide sufficient evidence to support alternative conclusions that EPA is proposing to make in this action: Namely, that several receptors exist, Indiana contributes to those receptors above a 1 percent of the NAAQS contribution threshold, and that Indiana continues to have good neighbor obligations that need to be addressed for the 2015 ozone NAAQS. We therefore propose that Indiana was required to analyze emissions from the sources and other emissions activity from within the state to determine whether its contributions were significant, and we propose to disapprove its submission because Indiana failed to do so.

5. Evaluation of Information Provided Regarding Step 4

Step 4 of the 4-Step interstate transport framework calls for development of permanent and federally enforceable control strategies to achieve the emissions reductions determined to be necessary at Step 3 to eliminate significant contribution to nonattainment or interference with maintenance of the NAAQS. IDEM identified the State's existing NO_X control measures, consent decree requirements, and future fuel switches and retirements for large EGUs and non-EGUs for the years 2008 through 2017 [80] States may not rely on non-SIP measures to meet SIP requirements. *See* CAA section 110(a)(2)(D) (''Each such [SIP] shall . . . contain adequate provisions . . . .''). *See also* CAA section 110(a)(2)(A); *Committee for a Better Arvin* v. *U.S. E.P.A.,* 786 F.3d 1169, 1175–76 (9th Cir. 2015) (holding that measures relied on by state to meet CAA requirements must be included in the SIP). However, the state did not revise its SIP to include these emission reductions in a revision to its SIP to ensure the reductions were permanent and enforceable. As a result, EPA proposes to disapprove Indiana's submittal on the separate, additional basis that Indiana has not included permanent and enforceable emissions reductions in its SIP as necessary to meet the obligations of CAA section 110(a)(2)(d)(i)(I).6.

6. Conclusion

Based on EPA's evaluation of Indiana's SIP submission, EPA is proposing to find that the portion of Indiana's November 12, 2018 SIP submission addressing CAA section 110(a)(2)(D)(i)(I) does not meet the state's interstate transport obligations, because it fails to contain the necessary provisions to eliminate emissions that will contribute significantly to nonattainment or interfere with maintenance of the 2015 ozone NAAQS in any other state.

C. Michigan

1. Evaluation of Information Provided by Michigan Regarding Step 1

At Step 1 of the 4-step interstate transport framework, Michigan relied primarily on the LADCO modeling released in 2018 to identify nonattainment and maintenance receptors in 2023. As described previously in this action, LADCO performed a modeling demonstration like that of EPA modeling released with the March 2018 memorandum, except with use of the ERTAC EGU Tool to replace specific EGU information. LADCO identified nonattainment and maintenance receptors using EPA methodology. EGLE elected to rely on LADCO's ''water only'' modeling results, but also presented results from EPA's modeling released with the March 2018 memorandum. EGLE noted that in general, design values in the LADCO modeling were lower. However, since new modeling has been performed by EPA which includes updated emission data using the 2016v2 platform, EPA proposes to primarily rely on the most recent modeling to identify nonattainment and maintenance receptors in 2023. Nonetheless, the alternative modeling relied on by EGLE also identified a number of nonattainment and maintenance receptor sites in 2023. *See* Table 2 on page 14 of EGLE's submittal. Thus, even under its alternative modeling of 2023, EGLE acknowledges in its submittal the existence of several nonattainment and maintenance receptors.

2. Evaluation of Information Provided by the State Regarding Step 2

Although Michigan relied on alternative modeling to EPA's modeling, EGLE acknowledged in their SIP submission that Michigan is linked above either a 1 percent of the NAAQS or 1 ppb or threshold to one or more downwind receptors in 2023 (1.85 ppb to Sheboygan, Wisconsin (Site ID: 36–081–0124), 1.22 ppb to Queens, New York (Site ID: 36–085–0067), and 1.03 ppb to Richmond, New York (Site ID: 55–117–0006)). Because the alternative modeling relied on by the state also demonstrates that a linkage exists between the state and downwind receptors at Step 2, EPA need not conduct a comparative assessment of the alternative modeling; the state concedes that it is linked. EGLE's analysis corroborates the conclusion in EPA's most recent modeling, described in the next section.

EGLE, relying on a concept from outside parties listed in Attachment A to the March 2018 memorandum, attempted to justify the use of a 1 ppb threshold at Step 2 to identify whether the state was ''linked'' to a projected downwind nonattainment or maintenance receptor. In part, EGLE attempted to justify the use of a 1 ppb contribution threshold based on the 2018 PSD SIL guidance document. EGLE also referenced EPA's August 2018 memorandum, which said that with appropriate additional analysis it may be reasonable for states to use a 1 ppb contribution threshold, as an alternative to a one percent threshold, at Step 2 of the 4-Step interstate transport framework for the purposes of identifying linkages to downwind receptors. As explained in Section I above, the concepts presented in Attachment A to the March 2018 memorandum were neither guidance nor determined by EPA to be consistent with the CAA. Further, EGLE did not explain the relevance of the SILs Guidance to which it referred. This guidance relates to a different provision of the Clean Air Act regarding implementation of the prevention of significant deterioration (PSD) permitting program, *i.e.,* a program that applies in areas that have been designated attainment of the NAAQS, and it is not applicable to the good neighbor provision, which requires

[80] Pointing to anticipated upcoming emission reductions, even if they were not included in the analysis at Steps 1 and 2, is not sufficient as a Step 3 analysis, for the reasons discussed in Section II.B.4. In this section, we explain that to the extent such anticipated reductions are not included in the SIP and rendered permanent and enforceable, reliance on such anticipated reductions is also insufficient at Step 4.

states to eliminate significant contribution or interference with maintenance of the NAAQS at known and ongoing air quality problem areas in other states. Further, it is not correct to conflate the use of the term ''significance'' as used in the SIL guidance, with the term ''contribution,'' which is the appliable statutory term that EPA applies at Step 2 of the 4-step interstate transport framework. (''Significance'' within the 4-step framework is evaluated at Step 3 through a multifactor analysis, for those states that are determined to ''contribute'' to downwind receptors at Steps 1 and 2. See Section I.D.4 above.) Given the fundamentally different statutory objectives and context, EPA disagrees with EGLE's contention that the SIL guidance is applicable in the good neighbor context.

EGLE's attempt to show ''inflection points'' through collectively presenting contribution data at each linked receptor and its claim that 1 ppb reflects the most meaningful inflection point are likewise not compelling. The presented data show a range of upwind contribution levels captured by different contribution thresholds depending on which receptor is analyzed. Certain receptors show a substantial downward trend in captured total upwind contribution well before a threshold of 1 ppb. Therefore, EPA does not find this evidence supportive of a 1 ppb threshold.

EPA does not accept Michigan's position that a 1 percent of the NAAQS contribution threshold at Step 2 ''may not be appropriate'' for the 2015 ozone NAAQS due to modeling biases and errors.[81] The explanation for how the 1 percent contribution threshold was originally derived is available in the 2011 CSAPR rulemaking. *See* 76 FR 48208, 48237–38. Further, in the CSAPR Update, EPA re-analyzed the threshold for purposes of the 2008 ozone NAAQS and determined it was appropriate to continue to apply this threshold. EPA compared the 1 percent threshold to a 0.5 percent of NAAQS threshold and a 5 percent of NAAQS threshold. EPA found that the lower threshold did not capture appreciably more upwind state contribution compared to the 1 percent threshold, while the 5 percent threshold allowed too much upwind state contribution to drop out from further analysis. See Final CSAPR Update Air Quality Modeling TSD, at 27–30 (EPA–HQ–OAR–2015–0596–0144). If EPA were to apply this analysis to the 2015 ozone NAAQS using the updated modeling based on the 2016v2 emissions platform, a 5 percent of the NAAQS contribution threshold (*i.e.,* 3.5 ppb) only captures approximately 50 percent of the total upwind contribution. Compared to a 1 percent threshold, a 5 percent threshold would, on average, forgo 27 percent) of the total upwind contribution. As EPA noted in the August 2018 memorandum, the use of a 2 ppb contribution threshold under the modeling released with the March 2018 memorandum would only capture about 55 percent of all upwind contributions, and therefore ''emission reductions from states linked at that higher threshold may be insufficient to address collective upwind state contribution to downwind air quality problems.''[31]

With these figures in mind, EGLE's claim based on unwarranted concerns over modeling uncertainty cannot be accepted. Both LADCO's and EPA's modeling techniques are sufficiently reliable and fit for the purpose to measure upwind contribution levels down to at least one 1 percent of the NAAQS. EPA's recommended model attainment test is based on application of the model in a relative sense rather than relying upon absolute model predictions.[82] All models have limitations resulting from uncertainties in inputs and scientific formulation. To minimize the effects of these uncertainties, the modeling is anchored to base period measured data in EPA's guidance approach for projecting design values. Notably, EPA also uses our source apportionment modeling in a relative sense when calculating the average contribution metric (used to identify linkages). In this method the magnitude of the contribution metric is tied to the magnitude of the projected average design value which is tied to the base period average measured design value. EPA's guidance has not established a bright-line criteria for judging whether or not statistical measures of model performance constitute acceptable or unacceptable model performance. So, contrary to what Michigan appears to be claiming with regards to modeling biases, there are no EPA recommended measures of allowable error. Although EPA does not typically focus on using particular benchmarks as the sole criteria for model performance, EPA notes that the model performance for the updated modeling based on the 2016v2 emissions platform is generally within the benchmarks recommended by Emery.[83]

EPA has successfully applied a 1 percent of the NAAQS threshold to identify linked upwind states in three prior rulemakings. And the D.C. Circuit has also declined to establish bright line criteria for model performance. In upholding EPA's approach to evaluating interstate transport in CSAPR, the D.C. Circuit held that they would not ''invalidate EPA's predictions solely because there might be discrepancies between those predictions and the real world. That possibility is inherent in the enterprise of prediction.'' *EME Homer City Generation, L.P.* v. *EPA,* 795 F.3d 118, 135 (2015). The court continued to note that ''the fact that a 'model does not fit every application perfectly is no criticism; a model is meant to simplify reality in order to make it tractable.' '' *Id.* at 135–36 (quoting *Chemical Manufacturers Association* v. *EPA,* 28 F.3d 1259, 1264 (D.C. Cir. 1994).

EPA's August 2018 memorandum provided that whether use of a 1 ppb threshold is appropriate must be based on an evaluation of state-specific circumstances, and no such evaluation was included in the submission. EPA's experience with the alternative Step 2 thresholds is further discussed in Section I.D.3.i. As discussed there, EPA is considering withdrawing the August 2018 memorandum.

Based on EPA's updated modeling (as well as the LADCO's 2018 modeling (with water) the state elected to rely on in its SIP submission), the state is projected to contribute greater than both the 1 percent and alternative 1 ppb thresholds. While EPA does not, in this action, approve of the state's application of the 1 ppb threshold, based on its linkages greater than 1 ppb to projected downwind nonattainment or maintenance receptors, the state's use of this alternative threshold at Step 2 of the 4-Step interstate framework is inconsequential to our action on this SIP submission.

3. Results of EPA's Step 1 and Step 2 Modeling and Findings for Michigan

As described in Section I, EPA performed air quality modeling using the 2016v2 emissions platform to project design values and contributions for 2023. These data were examined to determine if Michigan contributes at or above the threshold of 1 percent of the

[81] Michigan's SIP submission at 16.

[82] See Section 4.1' ''Overview of Modeled Attainment Test in EPA Modeling Guidance for Demonstrating Air Quality Goals for Ozone, $PM_{2.5}$, and Regional Haze. November 2018. EPA 454–R–18–009. *https://www.epa.gov/scram/sip-modeling-guidance-documents.*

[83] Christopher Emery, Zhen Liu, Armistead G. Russel, M. Talat Odman, Greg Yarwood and Naresh Kumar (2017). Recommendations on statistics and benchmarks to assess photochemical model performance, Journal of the Air & Waste Management Association, 67:5,582–598, *DOI: 10.1080/10962247.2016.1265027.*

2015 ozone NAAQS (0.70 ppb) to any downwind nonattainment or maintenance receptor. As shown in Table 4, the data[84] indicate that in 2023, emissions from Michigan contribute greater than one percent of the standard to nonattainment or maintenance-only receptors in Illinois, Connecticut, Wisconsin, and Pennsylvania.[85]

TABLE 4—MICHIGAN LINKAGE RESULTS BASED ON EPA UPDATED 2023 MODELING

Receptor ID	Location (county, state)	Nonattainment/ maintenance	2023 Average design value (ppb)	2023 Maximum design value (ppb)	Michigan contribution (ppb)
170314201	Cook, IL	Maintenance	69.9	73.4	1.67
170310076	Cook, IL	Maintenance	69.3	72.1	1.54
90099002	New Haven, CT	Nonattainment	71.8	73.9	1.27
170317002	Cook, IL	Maintenance	70.1	73.0	1.26
170310032	Cook, IL	Maintenance	69.8	72.4	1.21
550590025	Kenosha, WI	Maintenance	69.2	72.3	1.17
550590019	Kenosha, WI	Nonattainment	72.8	73.7	1.07
90010017	Fairfield, CT	Nonattainment	73.0	73.7	1.07
551010020	Racine, CT	Nonattainment	71.3	73.2	1.02
90013007	Fairfield, CT	Nonattainment	74.2	75.1	0.94
170310001	Cook, IL	Maintenance	69.6	73.4	0.93
90019003	Fairfield, CT	Nonattainment	76.1	76.4	0.92
420170012	Bucks, PA	Nonattainment	70.7	72.2	0.75

Therefore, based on EPA's evaluation of the information submitted by EGLE, and based on EPA's most recent modeling results for 2023, EPA proposes to find that Michigan is linked at Steps 1 and 2 and has an obligation to assess potential emissions reductions from sources or other emissions activity at Step 3 of the 4-step framework. EPA therefore will proceed to Step 3 of the 4-step interstate transport framework to assess the arguments the state presented as to why, despite this linkage, the state should not be considered to significantly contribute to nonattainment or interfere with maintenance of the NAAQS in any other state.

4. Evaluation of Information Provided Regarding Step 3

At Step 3 of the 4-step interstate transport framework, a state's emissions are further evaluated, in light of multiple factors, including air quality and cost considerations, to determine what, if any, emissions significantly contribute to nonattainment or interfere with maintenance and, thus, must be eliminated under CAA section 110(a)(2)(D)(i)(I).

To effectively evaluate which emissions in the state should be deemed ''significant'' and therefore prohibited, states generally should prepare an accounting of sources and other emissions activity for relevant pollutants and assess potential, additional emissions reduction opportunities and resulting downwind air quality improvements. EPA has consistently applied this general approach (*i.e.,* Step 3 of the 4-step interstate transport framework) when identifying emissions contributions that the Agency has determined to be ''significant'' (or interfere with maintenance) in each of its prior Federal, regional ozone transport rulemakings, and this interpretation of the statute has been upheld by the Supreme Court. *See EME Homer City,* 572 U.S. 489, 519 (2014). While EPA has not directed states that they must conduct a Step 3 analysis in precisely the manner EPA has done in its prior regional transport rulemakings, state implementation plans addressing the obligations in CAA section 110(a)(2)(D)(i)(I) must prohibit ''any source or other type of emissions activity within the State'' from emitting air pollutants which will contribute significantly to downwind air quality problems. Thus, states must complete something similar to EPA's analysis (or an alternative approach to defining ''significance'' that comports with the statute's objectives) to determine whether and to what degree emissions from a state should be ''prohibited'' to eliminate emissions that will ''contribute significantly to nonattainment in, or interfere with maintenance of'' the NAAQS in any other state.

EGLE did not conduct a sufficient step 3 analysis in Michigan's SIP submission. As explained previously, at Step 3 EGLE instead applied a weight of evidence analysis to argue that the state needed no additional emission reductions despite concluding Michigan was linked to three receptors at Step 2. The evidence presented in EGLE's submittal consisted primarily of support for the argument that upwind states should have a lower responsibility to other states when the upwind state is only linked to maintenance receptors. EGLE's analysis focused on the Sheboygan, Wisconsin maintenance receptor (Site ID: 36–081–0124), as EGLE concluded it was the receptor to which Michigan was projected to contribute the most in 2023 at 1.85 ppb. EGLE also relied on several ideas in Attachment A to the March 2018 memorandum to further discount the importance of its own emissions. As noted in Section I, the ideas listed in Attachment A to the March 2018 memorandum were not agency guidance nor had EPA determined them to be consistent with the requirements of the CAA. EPA will thoroughly review the technical and legal justifications ELGE made put forward in their attempt to use them as flexibilities.

In its submittal, EGLE cited a concept in Attachment A to the March 2018 memorandum to ''[c]onsider whether the remedy for upwind states linked to maintenance receptors could be less

[84] Design values and contributions at individual monitoring sites nationwide are provide in the file ''2016v2_DVs_state_contributions.xlsx'' which is included in docket ID No. EPA–HQ–OAR–2021–0663.

[85] These modeling results are consistent with the results of a prior round of 2023 modeling using the 2016v1 emissions platform which became available to the public in the fall of 2020 in the Revised CSAPR Update, as noted in Section I. That modeling showed that Illinois had a maximum contribution greater than 0.70 ppb to at least one nonattainment or maintenance-only receptor in 2023. These modeling results are included in the file ''Ozone Design Values & Contributions Revised CSAPR Update.xlsx'' in docket ID No. EPA–HQ–OAR–2021–0663.

stringent than those linked to nonattainment receptors'' and argued that because the CAA incudes different SIP development requirements for nonattainment and maintenance areas, that likewise nonattainment and maintenance areas should be treated differently in good neighbor SIPs. EGLE posited that because the CAA does not require emission reductions from maintenance areas, then upwind states can potentially make a sufficient showing they have no obligation to reduce emissions to monitors in other states projected to be maintaining the NAAQS. EGLE specifically noted that (1) the projected exceedance at the Sheboygan, Wisconsin receptor is very small, (2) the majority of the projected contribution to the Sheboygan, Wisconsin receptor is from federally regulated sources or sources Michigan cannot otherwise regulate, (3) Michigan's projected contribution to all three linked receptors is small compared to the projected contribution from other states and sources, (4) there are large projected contributions to the Sheboygan, Wisconsin receptor from international emissions, (5) Michigan's contributions to projected exceedance at the three maintenance receptors are small relative to other sources that also contribute more than 1 ppb to those receptors, (6) the modeling variability is greater than Michigan's contributions to the amount of the projected exceedance at each linked receptor and (7) there is a downward emissions trend in Michigan.

As a general matter, EPA disagrees with EGLE's premise that if no emission reductions are needed for the receptor to which Michigan contributes the most, that automatically no emission reductions are needed for the other receptors to which Michigan is linked. EGLE unreasonably failed to analyze receptor-specific circumstances present at other receptors to which it was linked, and this is particularly the case because EGLE chose to rely so heavily on receptor-specific information to support their conclusions with respect to the Sheboygan receptor. Further, while the set of receptors to which Michigan is linked has changed in the most recent modeling (and now includes nonattainment receptors), EPA disagrees with Michigan's arguments to the extent such reasoning could be applied to Michigan's linkages identified in EPA's 2016v2 emissions platform modeling.

EGLE argued that because the Sheboygan, Wisconsin receptor, had a small projected exceedance over the NAAQS, requiring additional emission reductions in Michigan would be ''premature'' and ''burdensome.'' [86] EGLE's premise goes beyond the concept in Attachment A to the 2018 memorandum that emission-reduction obligations as to maintenance receptors may be different; rather, EGLE argues that not only should Michigan have lower obligations with respect to maintenance receptors, but no obligations at all. Under the D.C. Circuit's decision in *North Carolina,* states and EPA are required to give independent significance to the ''interference with maintenance'' prong of section 110(a)(2)(D)(i)(I). 531 F.3d at 910. Since CSAPR, EPA's nationally consistent policy framework for addressing interstate ozone transport has given meaning to this prong through a separate definition of maintenance receptors at step 1 of the 4-step interstate transport framework. For states linked only to those receptors, EPA has found it appropriate to apply an emissions control solution that is uniform with the strategy applied for states that are linked to nonattainment receptors. *See* 76 FR at 48271. EPA's approach to addressing interference with maintenance under prong 2 for ozone NAAQS has been upheld twice, including on remand from the Supreme Court decision EGLE cited. *See EME Homer City Generation, L.P.,* 795 F.3d at 136; *Wisconsin,* 938 F.3d at 325–27. *See also* 86 FR at 23074. Particularly given this context, Michigan's SIP does not provide sufficient evidence to support less stringent or even no standards of emissions reductions relative to what would result from EPA's historical approach of addressing emissions activities from upwind states that are linked to maintenance-only receptors.

Further, EPA believes it would be inconsistent with the CAA for EPA to identify receptors that are at risk of NAAQS violations given certain conditions due to transported upwind emissions and then not prohibit the emissions that place the receptor at risk. The Supreme Court held that it was a permissible interpretation of the statute to apportion responsibility for states linked to nonattainment receptors considering ''both the magnitude of upwind states' contributions and the cost associated with eliminating them.'' *EME Homer City,* 572 U.S. at 518–19. It is equally reasonable and permissible to use these factors to apportion responsibility among upwind states linked to maintenance receptors because the goal in both instances is to prohibit the ''amounts'' of pollution that will either significantly contribute to nonattainment or interfere with maintenance of the NAAQS downwind. *See Id.* 515 n.18 (finding EPA's uniform-cost approach reasonable as to both prongs of the good neighbor provision). EPA's updated modeling indicates that Michigan will remain linked to downwind nonattainment and maintenance receptors for the 2015 ozone standard at least through 2023. Consequently, EPA believes EGLE's assertion that upwind states linked to maintenance-only receptors should be held to less stringent standards of emissions reductions (as compared to states linked to a nonattainment receptor) is inappropriate, whether applied to its downwind linkages in either the modeling EGLE relied on or in EPA's more recent modeling.

EGLE also claimed that Attachment A to the March 2018 memorandum suggested states linked only to maintenance receptors should consider whether emissions reduction factors should be influenced by high international contributions and high contributions from other states and sources. As a concept presented by outside parties, Attachment A to the March 2018 memorandum listed an idea that states may consider whether air quality, cost, or emission reduction factors should be weighted differently in areas where international contributions are relatively high. EPA did not at the time endorse this concept, nor does it do so now. However, EGLE did not present an approach or explain how international contributions to the linked receptors should influence the weighting of air quality, cost, or emission reductions at Step 3. Rather, EGLE suggested that if a receptor is near an international border, then international contribution could simply be removed from that monitor's projected design value. This is neither appropriate nor acceptable under the good neighbor provision or any other provision of the Clean Air Act. Michigan's approach effectively takes the position that no air quality problem should be deemed to exist at a downwind receptor location under the false assumption that the international portion of emissions affecting that area simply do not exist. EPA categorically rejects this approach as an entirely unacceptable form of air quality planning.

EGLE further cited contributions from other states and sources to the linkages it identified to conclude it would be ''unreasonable'' for linked states with relatively low contributions to reduce their contributions.[87] The Step 2 threshold (whether at 1 percent or 1

[86] See Michigan SIP submission p. 20.

[87] See Michigan SIP submission p. 32.

ppb) is intended to reflect the ''collective contribution'' nature of the interstate ozone transport problem and the complexity of the various linkages among states. *Cf. EME Homer City,* 572 U.S. at 515–16. The threshold functions as a screening step toward a more detailed analysis of emission-reduction opportunities across all of the states that contribute to some extent (*i.e.,* above the threshold) to a downwind air quality problem. To simply conclude that nothing need be done regarding emissions that exceed the step 2 threshold because those emissions can be characterized as ''small'' compared to others' emissions (by the upwind state's lights at least) is an attempt to simply move the ''contribution'' threshold at Step 2 and is clearly insufficient at Step 3.

Whether emissions from other states or other countries also contribute to the same downwind air quality issue is irrelevant in assessing whether a downwind state has an air quality problem, or whether an upwind state is significantly contributing to that problem. States are not obligated under CAA section 110(a)(2)(D)(i)(I) to reduce emissions sufficient on their own to resolve downwind receptors' nonattainment or maintenance problems. Rather, states are obligated to eliminate their own ''significant contribution'' or ''interference'' with the ability of other states to attain or maintain the NAAQS.

Further, the court in *Wisconsin* explained that downwind jurisdictions often may need to heavily rely on emissions reductions from upwind states in order to achieve attainment of the NAAQS, 938 F.3d at 316–17; such states would face increased regulatory burdens including the risk of bumping up to a higher nonattainment classification if attainment is not reached by the relevant deadline, *Maryland,* 958 F.3d at 1204. Indeed, the D.C. Circuit in *Wisconsin* specifically rejected petitioner arguments suggesting that upwind states should be excused from good neighbor obligations on the basis that some other source of emissions (whether international or another upwind state) could be considered the ''but-for'' cause of downwind air quality problem. 938 F.3d at 323–324. The court viewed petitioners' arguments as essentially an argument ''that an upwind state 'contributes significantly' to downwind nonattainment only when its emissions are the sole cause of downwind nonattainment.'' 938 F.3d at 324. The court explained that ''an upwind state can 'contribute' to downwind nonattainment even if its emissions are not the but-for cause.'' *Id.* at 324–325. *See also Catawba County* v. *EPA,* 571 F.3d 20, 39 (D.C. Cir. 2009) (rejecting the argument ''that 'significantly contribute' unambiguously means 'strictly cause' '' because there is ''no reason why the statute precludes EPA from determining that [an] addition of [pollutant] into the atmosphere is significant even though a nearby county's nonattainment problem would still persist in its absence''); *Miss. Comm'n on Envtl. Quality* v. *EPA,* 790 F.3d 138, 163 n.12 (D.C. Cir. 2015) (observing that the argument that ''there likely would have been no violation at all . . . if it were not for the emissions resulting from [another source]'' is ''merely a rephrasing of the but-for causation rule that we rejected in *Catawba County*.''). Therefore, a state is not excused from eliminating its significant contribution on the basis that emissions from other sources also contribute some amount of pollution to the same receptors to which the state is linked. Thus, the state's arguments related to contributions from other sources, including removing international emissions from projected design values at the Sheboygan, Wisconsin monitor, are insufficient at Step 3 of the analysis.

EGLE's submission included an apportionment analysis to quantify individual states' relative responsibility of the projected exceedances at the three linked receptors. EGLE cited Attachment A to the March 2018 memorandum as well as *EME Homer City Generation* to suggest Michigan could be found to be only responsible for eliminating its share of the projected exceedances relative to other states that also contribute more than 1 ppb to the same receptors. We first note that this approach is a deviation from EPA's traditional approach of apportioning upwind-state responsibility at Step 3 using a uniform cost of control metric set at a level that maximizes cost-effectiveness of emissions reductions in relation to downwind state impacts across all linked states. Thus, this is not how EPA has interpreted the statutory term ''significant'' in the past, and EPA does not reach a conclusion whether this approach would be approvable, had EGLE had imposed emissions reductions in line with this logic. We do not need to reach that point in the analysis, however, because, having selected that approach to defining its obligations, EGLE proceeded to ignore the result.

EGLE's submission identified Michigan's proportional contribution as less than 0.12 ppb to the three linked receptors and .05 ppb to the Sheboygan, Wisconsin receptor. Having acknowledged Michigan was responsible for eliminating up to 0.12 ppb of contribution to the downwind receptors, EGLE claimed that modeling ''noise'' made it ''difficult'' to require that amount of reductions from Michigan sources. EGLE further opined that the downwind jurisdiction's share of responsibilities likely made Michigan's contributions even lower and the projected exceedances were so small that those three receptors were likely to not have difficulty attaining the NAAQS anyway. EPA has routinely been capable of successfully implementing good neighbor obligations through the CSAPR framework, and achieving significant downwind air quality improvements through upwind-state reductions, at levels of ''significant contribution'' comparable or even less than those found in Michigan's submittal, irrespective of alleged ''modeling noise.'' *See Wisconsin,* 938 F.3d at 322–23 (rejecting Wisconsin's argument that it should not face good neighbor obligations on the basis that its emission reductions would only improve a downwind receptor by two ten-thousandths of a part per billion).

After measuring Michigan's significant contribution, EGLE suggested that modeling uncertainty was too great to either require emissions reductions or demonstrate that EGLE had any linkages to maintenance receptors at all. But EGLE had measured the state's significant contribution and was therefore identifying the measurable amount of significant contribution the state was legally responsible for eliminating. *See Michigan* v. *EPA,* 213 F.3d 663, 683–84 (D.C. Cir. 2000) (significant contribution must be ''measurable''). Further, scientific uncertainty may only be invoked to avoid comporting with the requirements of the CAA when ''the scientific uncertainty is so profound that it precludes . . . reasoned judgment'' *Massachusetts* v. *EPA,* 127 S.Ct. 1438 (2007). *See Wisconsin,* 938 F.3d at 318–19 (''Scientific uncertainty, however, does not excuse EPA's failure to align the deadline for eliminating upwind States' significant contributions with the deadline for downwind attainment of the NAAQS.''). *See also EME Homer City,* 795 F.3d 118, 135–36 (''We will not invalidate EPA's predictions solely because there might be discrepancies between those predictions and the real world. That possibility is inherent in the enterprise of prediction.''). EGLE's arguments related to modeling uncertainty or ''noise'' do not establish a level of uncertainty so high as to

preclude reasoned judgement. EGLE argued that the three maintenance receptors at issue could maintain the NAAQS without further emissions reductions from any linked upwind state. In support, EGLE's submission provided a list of on-the-way and on-the-books emission reductions measures to argue that Michigan's good neighbor obligations were already satisfied. EGLE provided references to certain facility retirements in Michigan, Federal mobile source rules, Federal rules reducing NO_X and VOCs such as MATS and the Oil and Natural Gas Industry Standards, the NO_X SIP Call, and CSAPR Update.

EPA's assessment of future air quality conditions generally already accounts for on-the-books emission reductions and the most up-to-date forecast of future emissions in the absence of the transport policy being evaluated (*i.e.,* base case conditions).[88] As described in more detail in Section I, EPA's latest projections of the baseline EGU emissions uses the version 6—Summer 2021 Reference Case of the IPM.[89] The IPM version 6—Summer 2021 Reference Case uses the NEEDS v6 database as its source for data on all existing and planned-committed units. Units are removed from the NEEDS inventory only if a high degree of certainty could be assigned to future implementation of the announced future closure or retirement. Any retirements excluded from the NEEDS v6 inventory can be viewed in the NEEDS spreadsheet.[90] The inventory for these projections takes account of the retirement of the Marquette Board of Light & Power Shiras Steam Plant, Lansing Board of Water and Light, Eckert Station, Units 1 and 3–6; DTE, River Rouge, Unit 3; We Energies, Presque Isle Power Plant, Units 5–9; DTE St. Clair, Units 1–4 and 6–7; DTE Trenton Channel, Unit 9; Wyandotte, Unit 5; Consumers Energy Karn, Units 1–2.

Additionally, EPA's modeling using the 2016v2 emissions platform accounts for the onroad and nonroad rules that Michigan identified, such as the Tier 3 Motor Vehicle Emission and Fuel Standards, to the extent still on the books and projected to have ozone-precursor emissions consequences.[91]

In other words, changes in the emissions inventory and on-the-books controls relevant to emissions in 2023 that EGLE claims EPA missed in its prior modeling have now been incorporated into EPA's most recent modeling of 2023 using the 2016v2 emissions platform. This modeling projects a continuing contribution from Michigan to thirteen out-of-state receptors above a threshold of 1 percent of the NAAQS (at Steps 1 and 2) despite these measures—nine of which have contribution from Michigan above 1 ppb and seven of which are nonattainment receptors (see Table 4).[92] Therefore, in light of continuing contribution to out of state receptors from Michigan notwithstanding these identified on-the-books control measures, EGLE's SIP submission should have evaluated the availability of *additional* air quality controls to improve downwind air quality at nonattainment and maintenance receptors at Step 3.

Nor does EGLE's listing of existing control measures or overall emission trends serve as an adequate substitute for a Step 3 analysis of additional potential emission reductions. In general, the listing of existing or on-the-way control measures, whether approved into the State's SIP or not, does not substitute for a complete step 3 analysis under EPA's 4-step framework to define ''significant contribution.'' ELGE did not provide an assessment of the overall effects of these measures, when the emissions reductions would be achieved, and what the overall resulting air quality effects would be at identified out of state receptors. EGLE did not identify which portion of ongoing emissions trends were not already accounted for in steps 1 and 2 of the analysis (EPA addresses specific identified changes in emissions inventory in the discussion above). EGLE did not evaluate additional, potential emissions control opportunities, or their costs or impacts, or attempt to analyze whether, if applied more broadly across linked states, the emissions reductions would constitute the elimination of significant contribution on a regional scale. The state did not offer an explanation as to whether any faster or more stringent emissions reductions that may be available were prohibitively costly or infeasible. Although EPA acknowledges states are not necessarily bound to follow its own analytical framework at step 3, we note that the state did not attempt to determine or justify an appropriate uniform cost-effectiveness threshold for the more stringent 2015 ozone NAAQS. This would have been similar to the approach to defining significant contribution that EPA has applied in prior rulemakings such as CSAPR and or the CSAPR Update, even if such an analysis is not technically mandatory.

Further, the state's attempt to categorize certain sectors of emissions as beyond its regulatory control is unpersuasive. Clearly the state possesses regulatory authority over its EGU and non-EGU large stationary sources as well as authority over other types of ''emissions activity within the state,'' *see* CAA section 110(a)(2)(D)(i). And while mobile sources are generally regulated at the Federal level under title II of the Clean Air Act, the state also has the authority to undertake any number of measures to reduce emissions from mobile sources through means and techniques that are not preempted by title II. *See, e.g.,* CAA sections 182(b)(3), 182(b)(4), 182(c)(3), 182(c)(4), 182(c)(5), 182(d)(1), 182(e)(3), and 182(e)(4) (identifying programs to control mobile source emissions that states are required to implement depending on the degree of ozone nonattainment). Specifically with respect to EGUs, EPA notes that no EGU NO_X control program has yet been established to implement good neighbor requirements for the 2015 ozone NAAQS. Thus reliance on prior programs, such as the CSAPR Update or Revised CSAPR Update, is misplaced, since those programs only addressed good neighbor obligations under the less stringent 2008 ozone NAAQS.

Finally, under the *Wisconsin* decision, states and EPA may not delay implementation of measures necessary to address good neighbor requirements beyond the next applicable attainment date without a showing of impossibility or necessity. *See* 938 F.3d at 320. In those cases where the measures identified by Michigan had implementation timeframes beyond the next relevant attainment dates, the submission did not offer a demonstration of impossibility of earlier implementation of those control measures that would go into effect after

[88] *See* 81 FR 74504 at 74517; 85 FR 68964 at 68979.

[89] Detailed information and documentation of EPA's Base Case, including all the underlying assumptions, data sources, and architecture parameters can be found on EPA's website at: *https://www.epa.gov/airmarkets/epas-power-sector-modeling-platform-v6-using-ipm-summer-2021-reference-case.*

[90] We note that for one of the units EGLE listed as projected to retire, Wyandotte—Unit 5, this facility was still included in the NEEDS as operating. Additionally, the unit IDs listed by EGLE in the SIP submittal may be different from those listed in EPA's NEEDS v6 inventory—NEEDS v6 Summer 2021 Reference Case, however we have verified that these emissions decreases have been accounted for in our most recent modeling.

[91] See Technical Support Document (TSD) Preparation of Emissions Inventories for the 2016v2 North American Emissions Modeling Platform included in the Headquarters docket ID No. EPA–HQ–OAR–2021–0663.

[92] Notably, in focusing its Step 3 analysis only on a single receptor, EGLE gave no weight to the *scope* of its contribution to downwind air quality problems. Linkages to thirteen receptor sites in EPA's most recent modeling indicate that Michigan's emissions have widespread effects in other states—effects that the State's SIP submittal would do nothing to address.

2024. Similarly, the State's submittal is insufficient to the extent the implementation timeframes for identified control measures were left unidentified, unexplained, or too uncertain to permit EPA to form a judgment as to whether the timing requirements for good neighbor obligations have been met.

For the reasons listed above, EPA proposes to find that Michigan has not satisfied its obligations of the good neighbor SIP provisions at Step 3 of the 4-step transport framework. We propose that Michigan was required to analyze emissions more fully from the sources and other emissions activity from within the state to determine whether its contributions were significant, and we propose to disapprove its submission because Michigan failed to do so.

5. Evaluation of Information Provided Regarding Step 4

Step 4 of the 4-step interstate transport framework calls for development of permanent and federally enforceable control strategies to achieve the emissions reductions determined to be necessary at Step 3 to eliminate significant contribution to nonattainment or interference with maintenance of the NAAQS. EGLE provided references to on the books and on the way Federal mobile source rules, MATS and the Oil and Natural Gas Industry Standards, the NO_X SIP Call, and CSAPR Update. As an initial matter, pointing to or listing existing state or Federal control measures is not what is called for at Step 4. Rather Step 4 requires the development of permanent and enforceable measures to implement those measures determined to be required at Step 3. EGLE claimed that nothing was required of Michigan at Step 3 and thus EGLE stated that it did not believe anything was required at Step 4. Therefore, we do not interpret the list of existing state or Federal measures to be EGLE's attempt at implementation at Step 4.

Because Michigan's SIP submission did not contain an evaluation of additional emission control opportunities (or establish that no additional controls are required), no information was provided at Step 4. As a result, EPA proposes to disapprove Michigan's submittal on the separate, additional basis that the state has not developed permanent and enforceable emissions reductions necessary to meet the obligations of CAA section 110(a)(2)(d)(i)(I).

6. Conclusion

Based on EPA's evaluation of EGLE's SIP submission, EPA is proposing to find that the portion of Michigan's March 5, 2019 SIP submission addressing CAA section 110(a)(2)(D)(i)(I) does not meet the state's interstate transport obligations, because it fails to contain the necessary provisions to eliminate emissions that will contribute significantly to nonattainment or interfere with maintenance of the 2015 ozone NAAQS in any other state.

D. Minnesota

1. Evaluation of Information Provided by Minnesota Regarding Steps 1 and 2

At Step 1 of the 4-step interstate transport framework, Minnesota relied on both LADCO modeling and EPA modeling released in the March 2018 memorandum and to identify nonattainment and maintenance receptors in 2023. As described previously, LADCO performed a modeling demonstration like that of EPA's 2018 transport modeling, except with use of the ERTAC EGU Tool to supplement state specific EGU information. LADCO identified nonattainment and maintenance receptors using EPA methodology. MPCA presented several nonattainment and maintenance receptors identified by both LADCO modeling, showing ''no water'' and ''with water'' results and EPA modeling released with the March 2018 memorandum. Since new modeling has been performed by EPA with updated emission data, EPA proposes to primarily rely on the most recent modeling to identify nonattainment and maintenance receptors in 2023. MPCA made several criticisms of EPA's method for projecting EGU emissions in EPA's modeling released with the March 2018 memorandum. Although EPA does not agree with those criticisms, we note that EPA is relying on a different method for projecting emissions from EGUs in the updated modeling using the 2016v2 emissions platform as explained in more detail in Section I.

Nonetheless, the alternative modeling relied on by MPCA also identified a number of nonattainment and maintenance receptor sites in 2023. *See* Tables 2 and 3 on pages 8 and 9 of MPCA's submittal. Thus, even under the alternative modeling of 2023, MPCA acknowledges in its submittal the existence of several nonattainment and maintenance receptors.

At Step 2 of the 4-Step interstate transport framework, MPCA relied on both LADCO modeling and EPA modeling released in the March 2018 memorandum to identify upwind state linkages to nonattainment and maintenance receptors in 2023. Based on both modeling results, MPCA concluded that Minnesota would contribute below 1 percent of the NAAQS to receptors in 2023. However, in this proposal, EPA relies on the Agency's most recently available modeling, which uses a more recent base year and more up-to-date emissions inventories, to identify upwind contributions and ''linkages'' to downwind air quality problems in 2023 using a threshold of 1 percent of the NAAQS. As shown in Table 5 (explained in the next section), the updated EPA modeling identifies Minnesota's maximum contribution to a downwind nonattainment or maintenance receptor is greater than 1 percent of the standard (*i.e.,* 0.70 ppb). Although the state did not rely on a 1 ppb contribution threshold in its SIP submittal, EPA recognizes that the modeling the MPCA used relied on the most recently available EPA modeling at the time the state submitted its SIP submittal (EPA modeling released in the March 2018 memorandum as well as the LADCO modeling). The 2018 modeling indicated the state was not projected to contribute above one 1 percent of the NAAQS to a projected downwind nonattainment or maintenance receptor. Therefore, the state may not have considered analyzing the reasonableness and appropriateness of a 1 ppb threshold at Step 2 of the 4-step Step interstate transport framework per the August 2018 memorandum. EPA's August 2018 memorandum provided that whether use of a 1 ppb threshold is appropriate must be based on an evaluation of state-specific circumstances, and no such evaluation was included in the submission. EPA's experience with the alternative Step 2 thresholds is further discussed in Section I.D.3.i. As discussed there, EPA is considering withdrawing the August 2018 memorandum.

2. Results of EPA's Step 1 and Step 2 Modeling and Findings for Minnesota

As described in Section I, EPA performed air quality modeling using the 2016v2 emissions platform to project design values and contributions for 2023. These data were examined to determine if Minnesota contributes at or above the threshold of 1 percent of the 2015 ozone NAAQS (0.70 ppb) to any downwind nonattainment or maintenance receptor. As shown in

Table 5, the data [93] indicate that in 2023, emissions from Minnesota contribute greater than 1 percent of the standards to two maintenance-only receptors in Illinois. These modeling results are consistent with the results of a prior round of 2023 modeling using the 2016v1 emissions platform that became available to the public in the fall of 2020 in the Revised CSAPR Update, as noted in Section I, which showed that Minnesota had a maximum contribution of 0.86 ppb to a nonattainment or maintenance receptor in 2023.[94]

TABLE 5—MINNESOTA LINKAGE RESULTS BASED ON EPA UPDATED 2023 MODELING

Receptor ID	Location	Nonattainment/maintenance	2023 Average design value (ppb)	2023 Maximum design value (ppb)	Minnesota contribution (ppb)
170310001	Cook	Maintenance	69.6	73.4	0.97
170310076	Cook	Maintenance	69.3	72.1	0.79

Based on EPA's evaluation of the information submitted by MPCA, and based on EPA's most recent modeling results for 2023 using the 2016v2 emissions platform, EPA proposes to find that Minnesota is linked at Steps 1 and 2 and has an obligation to assess potential emissions reductions from sources or other emissions activity at Step 3 of the 4-Step framework. Despite the linkage EPA determines exists at Step 2, the state concluded in its submission based on other factors that it should not be considered to significantly contribute to nonattainment or interfere with maintenance of the NAAQS in other states. Therefore, EPA will proceed to evaluate MPCA's additional analyses at Step 3 of the 4-Step interstate transport framework.

4. Evaluation of Information Provided Regarding Step 3

At Step 3 of the 4-Step interstate transport framework, a state's emissions are further evaluated, in light of multiple factors, including air quality and cost considerations, to determine what, if any, emissions significantly contribute to nonattainment or interfere with maintenance and, thus, must be eliminated under CAA section 110(a)(2)(D)(i)(I).

To effectively evaluate which emissions in the state should be deemed ''significant'' and therefore prohibited, states generally should prepare an accounting of sources and other emissions activity for relevant pollutants and assess potential, additional emissions reduction opportunities and resulting downwind air quality improvements. EPA has consistently applied this general approach (*i.e.,* Step 3 of the 4-step interstate transport framework) when identifying emissions contributions that the Agency has determined to be ''significant'' (or interfere with maintenance) in each of its prior Federal, regional ozone transport rulemakings, and this interpretation of the statute has been upheld by the Supreme Court. *See EME Homer City,* 572 U.S. 489, 519 (2014). While EPA has not directed states that they must conduct a Step 3 analysis in precisely the manner EPA has done in its prior regional transport rulemakings, state implementation plans addressing the obligations in CAA section 110(a)(2)(D)(i)(I) must prohibit ''any source or other type of emissions activity within the state'' from emitting air pollutants which will contribute significantly to downwind air quality problems. Thus, states must complete something similar to EPA's analysis (or an alternative approach to defining ''significance'' that comports with the statute's objectives) to determine whether and to what degree emissions from a state should be ''prohibited'' to eliminate emissions that will ''contribute significantly to nonattainment in or interfere with maintenance of'' the NAAQS in any other state. MPCA did not conduct such an analysis in their SIP submission.

Neither the LADCO modeling nor EPA modeling released with the March 2018 memorandum indicated that Minnesota would contribute over 1 percent of the NAAQS to any nonattainment or maintenance receptor in 2023. Therefore, MPCA stated they did not consider it necessary to consider further emission reductions because Minnesota was not projected to contribute to downwind air quality issues above the contribution threshold. Despite this, Minnesota provided supporting analysis to strengthen the conclusions of the modeling results. MPCA presented evidence that ambient ozone concentrations in Minnesota had been at or below the NAAQS from the late 1990s to 2017, and that NO_X and VOCs emissions had been steadily decreasing from 2002 through 2015. MPCA asserted that these trends would translate to continued reductions in ozone being transported from the state to nonattainment or maintenance receptors. Additionally, MPCA listed several state and Federal regulatory programs that control or incentivize NO_X and VOC limits, including the CSAPR NO_X trading program.

EPA does not dispute the evidence about ambient ozone concentrations and NO_X and VOC emissions trends or existence of the NO_X and VOC controls presented by Minnesota.[95] However, as explained in Section I.C, the most recent EPA modeling captures numerous updates to the 2016 emissions platform, including all existing CSAPR trading programs, in the baseline,[96] and that modeling confirms that most these control programs were not sufficient to eliminate Minnesota's linkage at Steps 1 and 2 under the 2015 ozone NAAQS. The state therefore has good neighbor obligations under the 2015 8-hour NAAQS and is obligated at Step 3 to assess additional control measures using a multifactor analysis.

MPCA identified state permitting programs, rules, voluntary programs, and the CSAPR NO_X trading program,

[93] Design values and contributions at individual monitoring sites nationwide are provide in the file: 2016v2_DVs_state_contributions.xlsx which is included in docket ID No. EPA–HQ–OAR–2021–0663.

[94] These modeling results are consistent with the results of a prior round of 2023 modeling using the 2016v1 emissions platform which became available to the public in the fall of 2020 in the Revised CSAPR Update, as noted in Section I. That modeling showed that Minnesota had a maximum contribution greater than 0.70 ppb to at least one nonattainment or maintenance-only receptor in 2023. These modeling results are included in the file ''Ozone Design Values And Contributions Revised CSAPR Update.xlsx'' in docket EPA–HQ–OAR–2021–0663.

[95] *See* Minnesota's SIP submittal Figures 1–3, pages 10–11.

[96] For a complete explanation of air quality modeling of the 2016v2 emissions platform modeling, please see ''AQ Modeling TSD_2016v2 Platform.pdf'' included in docket ID No. EPA–HQ–OAR–2021–0663.

among others, as NO_X and VOC control measures which satisfy Minnesota's good neighbor obligations under the 2015 ozone NAAQs. In general, however, the listing of existing or on-the-way control measures, whether approved into the state's SIP or not, does not substitute for a complete Step 3 analysis under EPA's 4-step framework to define ''significant contribution.'' Minnesota's submission does not include an assessment of the overall effects of these measures, when the reductions would be achieved, and what the overall resulting air quality effects would be observed at identified out-of-state receptors. Minnesota's submission does not include an evaluation of additional potential emissions control opportunities, or their costs or impacts, or attempt to analyze whether, if applied more broadly across linked states, the emissions reductions would constitute the elimination of significant contribution on a regional scale. The state's submission did not contain an explanation as to whether any faster or more stringent emissions reductions that may be available were prohibitively costly or infeasible. Furthermore, states may not rely on non-SIP measures to meet SIP requirements, and Minnesota has not revised its SIP to contain the CSAPR NO_X trading program or the non-SIP approved rules MPCA identified. *See* CAA section 110(a)(2)(D) (''Each such [SIP] shall . . . contain adequate provisions . . . .''). See also CAA section 110(a)(2)(A); *Committee for a Better Arvin* v. *U.S. E.P.A.,* 786 F.3d 1169, 1175–76 (9th Cir. 2015) (holding that measures relied on by state to meet CAA requirements must be included in the SIP).

As mentioned above, EPA has newly available information that indicates sources in Minnesota are linked to downwind air quality problems for the 2015 ozone standard. Therefore, EPA proposes to disapprove Minnesota's August 20, 2018 interstate transport SIP submission on the separate, additional basis that the SIP submittal did not assess additional emissions control opportunities.

5. Evaluation of Information Provided Regarding Step 4

Step 4 of the 4-Step interstate transport frameworks calls for development of permanent and federally enforceable control strategies to achieve the emissions reductions determined to be necessary at Step 3 to eliminate significant contribution to nonattainment or interference with maintenance of the NAAQS. MPCA identified state permitting programs, rules, voluntary programs, and the CSAPR NO_X trading program, among others, as NO_X and VOC control measures which are not all part of Minnesota's SIP. Although the state has since incorporated some of these control measures into their SIP, Minnesota did not revise its SIP to include all these emission reductions in a revision to its SIP to ensure the reductions were permanent and enforceable and eliminate their significant contribution to nonattainment or interference with maintenance of the NAAQS. As a result, EPA proposes to disapprove Minnesota's submittal on the separate, additional basis that the Minnesota has not developed permanent and enforceable emissions reductions necessary to meet the obligations of CAA section 110(a)(2)(d)(i)(I).

6. Conclusion

Based on EPA's evaluation of Minnesota's SIP submission and after consideration of updated EPA modeling using the 2016-based emissions modeling platform, EPA is proposing to find that the portion of Minnesota's October 1, 2018 SIP submission addressing CAA section 110(a)(2)(D)(i)(I) does not meet the state's interstate transport obligations for 2015 ozone NAAQS, because it fails to contain the necessary provisions to eliminate emissions that will contribute significantly to nonattainment or interfere with maintenance of the NAAQS in any other state.

E. Ohio

1. Evaluation of Information Provided by Ohio Regarding Steps 1

At Step 1 of the 4-step interstate transport framework, OEPA relied on LADCO modeling released in 2018 to identify nonattainment and maintenance receptors in 2023. As described previously in this action, LADCO performed modeling similar to EPA's modeling released in the March 2018 memorandum, except with use of ERTAC for projecting future year EGU emissions. LADCO identified nonattainment and maintenance receptors using EPA methodology. OEPA elected to rely on LADCO's ''3x3'' modeling results, which identified similar receptors to EPA's modeling included in the March 2018 memorandum.

However, OEPA elected to use an alternative method developed by TCEQ for identifying maintenance receptors at Step 1 of the 4-step framework. Using the TCEQ method to identify maintenance receptors OEPA claimed that four maintenance receptors based on EPA's approach would not have difficulty maintaining the NAAQS in 2023. OEPA relied on the potential flexibilities in Attachment A to the March 2018 in support of its use of the TCEQ method. As explained in Section I.C above, the concepts presented in Attachment A to the March 2018 memorandum were neither guidance nor determined by EPA to be consistent with the CAA. OEPA submitted Ohio's SIP submission before EPA released its October 2018 memorandum discussing maintenance receptors. Regardless, EPA will examine the legal and technical merits of OEPA's arguments related to the use of an alternative maintenance-only definition in light of the October 2018 memorandum. OEPA has not adequately explained or justified how TCEQ's method for identifying maintenance receptors reasonably identifies areas that will have difficulty maintaining the NAAQS. That is, EPA proposes to find that OEPA has provided no sound technical basis for how TCEQ's methodology gives meaning to the CAA's instruction that states submit good neighbor SIPs that prohibit their states' emissions from interfering with the maintenance of the NAAQS in another state.

In *North Carolina* v. *EPA,* 531 F.3d 896, 909–11 (D.C. Cir. 2008), the D.C. Circuit rejected EPA's CAIR on the basis that EPA had not adequately given meaning to the phrase ''interfere with maintenance'' in the good neighbor provision. Specifically, North Carolina argued that it had counties that were projected to attain the NAAQS in the future analytic year, but were at risk of falling back into nonattainment due to interference from upwind sources, particularly given year-to-year variability in ozone levels. The court agreed, holding that EPA's rule did not adequately protect ''[a]reas that find themselves barely meeting attainment.'' *Id.* at 910. Consequently, EPA has developed a methodology, used in its 2011 CSAPR and its 2016 CSAPR Update and Revised CSAPR Update, for identifying areas that may struggle to maintain the NAAQS. *See* 76 FR at 48227–28. EPA's approach to addressing maintenance receptors was upheld in the *EME Homer City* litigation. See 795 F.3d 118, 136–37. It was also upheld in *Wisconsin.* 938 F.3d at 325–26. In *Wisconsin,* the court noted that four upwind states were linked only to maintenance receptors and rejected the argument that application of the same control level as EPA imposes for those states linked to nonattainment receptors was unreasonable or unlawful absent a

particularized showing of overcontrol. *Id.* at 327.

In order to explain the differences between TCEQ's and EPA's methodology for identifying maintenance receptors, it is helpful to provide some additional context for how EPA projects future air quality. EPA's air quality modeling guidance has long recommended developing a base design value (*i.e.,* the design value that will be used as a starting point to model and analyze for purposes of projecting future air quality concentrations) that is the average of three design values spanning a five-year period, centered around one year for which an emissions inventory will be submitted (*e.g.,* if 2011 was the base emissions inventory year, a state would use monitored values from 2009–2011, 2010–2012, 2011–2013 as the starting point for projecting air quality concentrations in future years). The average of these three design values is then multiplied by a relative response factor to generate an average design value for the future year. If a receptor's average future year design value is greater than or equal to the level of the NAAQS, and the receptor has recent monitored data that violates the NAAQS, that receptor is considered a ''nonattainment'' receptor at step 1. To identify maintenance receptors, EPA's methodology looks to the highest design value of the three DVs used to calculate the 5-year weighted average design value (*e.g.,* in the 2011 example, if 2009–2011 had the highest design value of 2009–2011, 2010–2012, and 2011–2013). EPA then applies the same relative response factor to that highest design value to generate a projected future maximum design value. Where a receptor's maximum design value exceeds the level of the NAAQS, EPA has deemed those receptors to be ''maintenance'' receptors. This methodology was designed to address the D.C. Circuit's holding that the CAA's ''interference with maintenance'' prong requires states and EPA to protect areas that may struggle with maintaining the standard in the face of variable conditions.

For its maintenance receptors, TCEQ elected not to use the highest design value of the three DVs making up the base period average design value. Instead, Texas (and by extension, Ohio), used the *most recent* design value of the three DVs, regardless of whether the most recent design value was highest or lowest. OEPA's proffered explanation for using the most recent design value to identify maintenance receptors was that the latest design value ''takes into consideration . . . any emissions reductions that might have occurred.'' [97] OEPA in its submission did not explain why or how this methodology identifies those areas that may be meeting the NAAQS or that may be projected to meet the NAAQS but may nevertheless struggle to maintain the NAAQS, given interannual variability in ozone conducive meteorology. In fact, because the TCEQ's methodology adopted by OEPA uses the most recent design value to capture more recent emissions reductions rather than capture variable conditions, the methodology appears to be aimed at *limiting* receptors which could be identified as maintenance receptors, compared to EPA's methodology, which was designed to identify those areas that might struggle to maintain the NAAQS in ozone conducive conditions.

EPA disagrees that the use of latest three years for calculating a DV properly accounts for the effects of meteorological variability for the purpose of identifying projected maintenance receptors. Rather, the use of a three-year average is intended to *average out,* not account for, the effects of inter-annual variability in ozone conducive meteorology. EPA reviewed the information provided by OEPA and proposes to find that the information is insufficient to support the use of an alternative approach. OEPA analysis of meteorological information did not discuss or consider how other meteorological factors that are typically associated with high ozone episodes such as humidity, solar radiation, vertical mixing, and/or other meteorological indicators such as cooling-degree days to confirm whether conditions affecting these monitors may have been conducive to ozone formation during the 2009 through 2013 base period. In addition, the ozone trends data provided in OEPA submittal indicate that several of the receptors in Coastal Connecticut to which Ohio is linked by more than 1 ppb continue to measure ozone design values close to or exceeding 80 ppb with no overall downward trend in the most recent data in the submittal.[98] In any event, OEPA's use of an alternative approach to identifying maintenance receptors does not result in a dispositive change in receptor status for purposes of EPA's evaluation of OEPA's SIP submittal at Step 1 because OEPA did not reach the conclusion that there were no receptors in 2023 or claim at Step 2 that Ohio was not linked to any receptor on the basis of the use of an alternative definition of maintenance receptor.

In conclusion, the modeling relied on by OEPA identified a number of nonattainment and maintenance receptor sites in the Midwest and Northeast in 2023. See Table 1 on page 8 of OEPA's submittal. Under EPA's approach to defining nonattainment and maintenance receptors, Ohio was shown to be linked to three ''nonattainment/maintenance'' receptors and six ''maintenance'' receptors. Under an alternative approach to defining receptors (discussed below), OEPA concluded that Ohio was shown to be linked to two ''nonattainment'' receptors, one ''nonattainment/maintenance'' receptor, and four ''maintenance'' receptors. Thus, based on using the LADCO's 2023 modeling and even under an alternative approach to defining ''maintenance'' receptors, OEPA acknowledges in its submittal the existence of several nonattainment and maintenance receptors in the Midwest and Northeast. EPA further evaluates Ohio's linkage to these receptors in the following section.

2. Evaluation of Information Provided by the State Regarding Step 2

Although OEPA relied on alternative modeling to EPA's modeling, OEPA acknowledged in their SIP submission that Ohio is linked above either a 1 percent of the NAAQS or a 1 ppb contribution threshold to one or more downwind receptors in 2023. Because the LADCO modeling relied on by the state also demonstrates that a linkage exists between the state and downwind receptors at Step 2, EPA need not conduct a comparative assessment of the alternative modeling; the state concedes that it is linked above either 1 percent of the NAAQS or 1 ppb.

The state additionally evaluated the use of an alternative threshold exceeding 1 ppb at Step 2 to identify whether the state was ''linked'' to a projected downwind nonattainment or maintenance receptor. EPA's August 2018 memorandum provided that whether use of a 1 ppb threshold is appropriate must be based on an evaluation of state-specific circumstances, but that the use of a threshold greater than 1 ppb at Step 2 would likely not be appropriate because higher thresholds would not capture a sufficient amount of total upwind state contribution to allow for the development of effective remedies at Step 3.[31] In particular, EPA found that a 2 ppb threshold would cause 45% of total upwind contribution to be removed from further analysis across all

[97] TCEQ submission at 3–39 to 3–40.

[98] *See* ''2010 Thru 2020 Ozone Design Values.xlsx'' in docket ID No. EPA–HQ–OAR–2021–0663.

receptors as compared to a 1 percent of NAAQS threshold.

EPA does not accept Ohio's position that a 1 percent of the NAAQS contribution threshold at Step 2 is ''impractical and infeasible'' for the 2015 ozone NAAQS because ''it results in very small contributions having substantial consequences.'' [99] This argument conflates the contribution threshold at Step 2 with a determination of ''significance'' reached at Step 3 after a multi-factor analysis. In its submittal, OEPA justified a higher threshold than either 1 percent or 1 ppb by noting that, if applied, these alternative thresholds (3 or 4 percent of the NAAQS) would progressively de-link the State from an increasing number of identified downwind receptors. EPA likewise disagrees with this reasoning; selecting progressively higher contribution thresholds simply on the basis that they would excuse an ever greater number of upwind states from having any good neighbor obligations lacks any persuasive technical justification and is inconsistent with the purposes of the Act.

The explanation for how the 1 percent contribution threshold was originally derived is available in the 2011 CSAPR rulemaking. *See* 76 FR 48208, 48237–38. Further, in the CSAPR Update, EPA re-analyzed the threshold for purposes of the 2008 ozone NAAQS and determined it was appropriate to continue to apply this threshold. EPA compared the 1 percent threshold to a 0.5 percent of NAAQS threshold and a 5 percent of NAAQS threshold. EPA found that the lower threshold did not capture appreciably more upwind state contribution compared to the 1 percent threshold, while the 5 percent threshold allowed too much upwind state contribution to drop out from further analysis. *See* Final CSAPR Update Air Quality Modeling TSD, at 27–30 (EPA–HQ–OAR–2015–0596–0144). If EPA were to apply this analysis to the 2015 ozone NAAQS using the updated modeling based on the 2016v2 emissions platform, a 5 percent of the NAAQS contribution threshold (*i.e.,* 3.5 ppb) only captures approximately 50 percent of the total upwind contribution. Compared to a 1 percent threshold, a 5 percent threshold would, on average, forgo 27 nearly 30 percent) of the total upwind contribution. As EPA noted in the August 2018 memorandum, the use of a 2 ppb contribution threshold under the modeling released with the March 2018 memorandum would only capture about 55 percent of all upwind contributions, and therefore ''emission reductions from states linked at that higher threshold may be insufficient to address collective upwind state contribution to downwind air quality problems.''[31]

Based on EPA's updated modeling and the LADCO modeling, the state is projected to contribute greater than both the 1 percent and alternative 1 ppb thresholds. While EPA does not, in this action, approve of the state's application of the 1 ppb threshold, based on its linkages greater than 1 ppb to projected downwind nonattainment or maintenance receptors, the state's use of this alternative threshold at Step 2 of the 4-Step interstate framework would not alter our review and proposed disapproval of this SIP submittal.

TABLE 6—OHIO LINKAGE RESULTS BASED ON EPA UPDATED 2023 MODELING

Receptor ID	Location (county, state)	Nonattainment/maintenance	2023 Average design value (ppb)	2023 Maximum design value (ppb)	Ohio Contribution (ppb)
90099002	New Haven, CT	Nonattainment	71.8	73.9	1.94
90019003	Fairfield, CT	Nonattainment	76.1	76.4	1.90
420170012	Bucks, PA	Maintenance	70.7	72.2	1.88
90013007	Fairfield, CT	Nonattainment	74.2	75.1	1.87
170317002	Cook, IL	Maintenance	70.1	73.0	1.69
550590019	Kenosha, WI	Nonattainment	72.8	73.7	1.67
550590025	Kenosha, WI	Maintenance	69.2	72.3	1.33
170310032	Cook, IL	Maintenance	69.8	72.4	1.26
170314201	Cook, IL	Maintenance	69.9	73.4	1.23
170310076	Cook, IL	Maintenance	69.3	72.1	1.23
90010017	Fairfield, CT	Nonattainment	73.0	73.7	1.18
551010020	Racine, WI	Nonattainment	71.3	73.2	1.00
170310001	Cook, IL	Maintenance	69.6	73.4	0.82

4. Evaluation of Information Provided Regarding Step 3

At Step 3 of the 4-step interstate transport framework, a state's emissions are further evaluated, in light of multiple factors, including air quality and cost considerations, to determine what, if any, emissions significantly contribute to nonattainment or interfere with maintenance and, thus, must be eliminated under CAA section 110(a)(2)(D)(i)(I). As explained in Section II.E, Ohio relied on a combination of both cost and air quality factors to determine that there were no further reductions necessary for Ohio to meet its obligations under the interstate transport provision. In this subsection, we have evaluated the information provided by the state at Step 3 to support this conclusion.

To effectively evaluate which emissions in the state should be deemed ''significant'' and therefore prohibited, states generally should prepare an accounting of sources and other emissions activity for relevant pollutants and assess potential, additional emissions reduction opportunities and resulting downwind air quality improvements. EPA has consistently applied this general approach (*i.e.,* Step 3 of the 4-step interstate transport framework) when identifying emissions contributions that the Agency has determined to be ''significant'' (or interfere with maintenance) in each of its prior Federal, regional ozone transport rulemakings, and this interpretation of the statute has been upheld by the Supreme Court. *See* EME Homer City, 572 U.S. 489, 519 (2014). While EPA has not directed states that they must conduct a Step 3 analysis in precisely the manner EPA has done in its prior regional transport rulemakings, state implementation plans addressing the

[99] Michigan's SIP submission at 16.

obligations in CAA section 110(a)(2)(D)(i)(I) must prohibit ''any source or other type of emissions activity within the State'' from emitting air pollutants which will contribute significantly to downwind air quality problems. Thus, states must complete something similar to EPA's analysis (or an alternative approach to defining ''significance'' that comports with the statute's objectives) to determine whether and to what degree emissions from a state should be ''prohibited'' to eliminate emissions that will ''contribute significantly to nonattainment in, or interfere with maintenance of'' the NAAQS in any other state. OEPA did not conduct such an analysis in their SIP submission.

OEPA's submission concluded that projected emissions were overestimated for the EGU, non-EGU, and onroad sectors. OEPA claimed that the ERTAC EGU tool's emissions inventories were overestimated for eight specific sources for various reasons, including adoption of rules in late 2016 and early 2017, CSAPR and CSAPR Update allocations, and substantive changes in plant operation. The submission also asserted that ERTAC EGU tool version 2.7 does not consider that future energy generation sources will likely be a steady level of coal with increasing natural gas and renewable fuels, citing an un-enumerated number of natural gas source permits issued by Ohio and projected trends identified in the US Energy Information Administration's Annual Energy Outlook (AEO) 2018.[100] Similarly, the submission claimed projected emissions from EPA's Air Emissions Modeling Platform 2011v6.3 were overestimated for nine non-EGU point sources, primarily based on actual emissions trends from 2010 to 2017. OEPA also claimed that EPA over projected onroad emissions using 2023 vehicle miles traveled (VMT). However, OEPA did not explain how accounting for changed projected emissions from those 17 sources or the onroad sector would have resulted in different outcomes with regards to the identification of downwind receptors or Ohio's contributions or linkages in the 2023 analytic year. Furthermore, nationwide trends and an unspecified number of state permits are insufficient by themselves to support a conclusion that EGUs in Ohio would not be affected by generation shifting. EPA notes the information presented from the AEO is related to nationwide trends and OEPA did not explain what the nationwide trends revealed about Ohio's level of contribution or good neighbor obligations to downwind receptors. Merely claiming that the modeling used to project receptors and contributions relies on overestimated emissions projections without an explanation of how the inputs would affect the outcome is not enough to draw a conclusion at Step 2 that Ohio is not linked to any downwind receptor or a conclusion at Step 3 that Ohio does not contribute significantly or interfere with maintenance in any other state. Considered individually or in the context of the other information and arguments put forward by OEPA, select EGU, non-EGU, and onroad emissions evaluations and nation-wide projections of fuel types fail to show that additional emissions reductions are either not cost-effective or permanent and federally enforceable. OEPA did not demonstrate that the downwind improvements from these regulations and programs would be sufficient to eliminate the state's significant contribution or interference with maintenance.

Further, EPA's assessment of future air quality conditions generally accounts for on-the-books emission reductions and the most up-to-date forecast of future emissions in the absence of the transport policy being evaluated (*i.e.,* base case conditions).[101] As described in more detail in Section I, EPA's latest projections of the baseline EGU emissions uses the version 6—Summer 2021 Reference Case of the IPM.[102] The IPM version 6—Summer 2021 Reference Case uses the NEEDS v6 database as its source for data on all existing and planned-committed units. Units are removed from the NEEDS inventory only if a high degree of certainty could be assigned to future implementation of the announced future closure or retirement. Any retirements excluded from the NEEDS v6 inventory can be viewed in the NEEDS spreadsheet.[103] The inventory for these projections contains various Ohio EGUs including the Avon Lake Power Plant in Lorain County (Facility ID 0247030013), Painesville Municipal Electric Plant in Lake County (Facility ID 0243110008), and the Department of Public Utilities, City of Orrville in Wayne County (Facility ID 0285010188). Mingo Junction Energy Center in Jefferson County (Facility ID 0641090234) and the Conesville Power Plant (Facility ID 0616000000) retired in 2020.

Also, EPA's non-EGU emissions inventory in the updated modeling using the 2016v2 emissions platform does not include either Carmeuse Lime Inc Millersville Operations (Facility ID 0372000081) or RockTenn CP, LLC (Facility ID 0616010001). EPA's latest modeling also uses emissions inventories that incorporate Ohio's submitted 2023 VMT data.[104] In other words, in general, any changes in the emissions inventory and on-the-books controls relevant to emissions in 2023 have now been incorporated into EPA's modeling using the 2016v2 emissions platform, which projects a continuing contribution from Ohio to out of state receptors above a threshold of 1 percent of the NAAQS (at Steps 1 and 2) despite these measures. Therefore, in light of continuing contribution to out of state receptors from Indiana notwithstanding these identified retirements, OEPA's SIP submission should have evaluated the availability of additional air quality controls to improve downwind air quality at nonattainment and maintenance receptors at Step 3.

Ohio's projected contribution to downwind receptors in EPA's updated modeling is lower relative to the LADCO modeling results presented in OEPA's submission; it could be assumed that these decreases are due to overestimation of sources that were corrected in the updated modeling. These results could also be attributed to Federal programs in place (NO_X RACT, AIM Coatings Rules, CSAPR, NOx SIP Call, NESHAPs, RHR, BART, SO_2 Data Requirements rule, and MATS) as OEPA suggests. Regardless, despite the lessened projected contributions, Ohio's contributions continue to be projected to be above 1 percent of the NAAQS to one or more receptors in 2023 as shown in Table 6.

OEPA's assessment of actual and projected NO_X and VOC emissions trends and listing of various regulations likewise do not support a conclusion that existing controls in Ohio adequately address the state's good neighbor obligations for the 2015 ozone NAAQS. For one, OEPA listed numerous non-SIP measures and states may not rely on non-SIP measures to

[100] *See https://www.eia.gov/outlooks/archive/aeo18/,* last accessed 1/18/2022.

[101] *See* 81 FR 74504 at 74517; 85 FR 68964 at 68979.

[102] Detailed information and documentation of EPA's Base Case, including all the underlying assumptions, data sources, and architecture parameters can be found on EPA's website at: *https://www.epa.gov/airmarkets/epas-power-sector-modeling-platform-v6-using-ipm-summer-2021-reference-case.*

[103] The ''Capacity Dropped'' and the ''Retired Through 2023'' worksheets in NEEDS lists all units that are removed from the NEEDS v6 inventory—NEEDS v6 Summer 2021 Reference Case. This data can be found on EPA's website at: *https://www.epa.gov/airmarkets/national-electric-energy-data-system-needs-v6.*

[104] Technical Support Document (TSD) Preparation of Emissions Inventories for the 2016v2 North American Emissions Modeling Platform, section 4.3.2. Available in the Headquarters docket ID No. EPA–HQ–OAR–2021–0663.

meet SIP requirements. *See* CAA section 110(a)(2)(D) (''Each such [SIP] shall . . . contain adequate provisions . . . .''). *See also* CAA section 110(a)(2)(A); *Committee for a Better Arvin* v. *U.S. E.P.A.,* 786 F.3d 1169, 1175–76 (9th Cir. 2015) (holding that measures relied on by state to meet CAA requirements must be included in the SIP). OEPA did not attempt to revise Ohio's SIP to include all these measures.[105] In general, the listing of existing or on-the-way control measures, whether approved into the state's SIP or not, does not substitute for a complete Step 3 analysis under EPA's 4-step framework to define ''significant contribution.'' OEPA's submittal does not include an assessment of the overall effects of these measures, when the reductions would be achieved, and what the overall resulting air quality effects would be observed at identified out-of-state receptors. The state's submission does not include an evaluation of additional potential emissions control opportunities, or their costs or impacts, or attempt to analyze whether, if applied more broadly across linked states, the emissions reductions would constitute the elimination of significant contribution on a regional scale. The state's submission did not contain an explanation as to whether any faster or more stringent emissions reductions that may be available were prohibitively costly or infeasible. Second, the information and claims presented by OEPA did not provide sufficient evidence to support alternative conclusions that EPA is proposing to make in this action: Namely, that several receptors exist, Ohio contributes to those receptors above a 1 percent of the NAAQS contribution threshold, and that Ohio continues to have good neighbor obligations that need to be addressed for the 2015 ozone NAAQS.

OEPA also pointed to declining design values at the ten receptors identified by LADCO to support their conclusion that no further emissions reductions were required from Ohio to meet their interstate transport obligations. They additionally reference a May 14, 2018 EPA presentation, stating that EPA indicated remaining ozone air quality problems were becoming more local and less regional in nature. While it is true that since 2011, design values have generally declined, air quality problems at some locations are projected to continue out to 2023 and beyond, based on EPA's 2018 modeling provided in the March 2018 memorandum, LADCO's modeling completed in 2018, EPA's modeling results used in the Revised CSAPR Update, and EPA's updated modeling results. In addition, each of these modeling analyses show that Ohio will contribute to the air quality problems in excess of 1 percent of the 2015 ozone standards in 2023. Regarding the May 14, 2018 presentation, EPA assumes the state is referencing a presentation given by an EPA air quality modeler, which Indiana attached to their SIP submission. The purpose of that presentation was to share a technical, exploratory analysis of ozone trends. The results of that presentation, which were labeled as ''preliminary'' indicated that ''[f]urther exploration of the relative contribution from various source sectors within the NE Corridor and in nearby upwind states might also be informative.'' [106] The preliminary results of that analysis are generally consistent with EPA's updated modeling using the 2016v2 emissions platform. Although EPA's modeling shows that a large portion of the transport problem affecting the receptors in Coastal Connecticut is indeed from sources within the Ozone Transport Region (OTR), a substantial portion of the transport problem at these receptors, on the order of 25 percent, is the result of transport from states outside the OTR. However, the relevance of that presentation to the evaluation of Ohio's good neighbor obligations is not clear. As already discussed, the statute and the case law (particularly the holdings in *Wisconsin* and *Maryland*) make clear that good neighbor obligations are not merely supplementary to or deferable until after local emission reductions are achieved. Further, based on EPA's modeling released with the March 2018 memorandum, nearly all of the receptors to which Ohio is linked are also heavily impacted by distant upwind state emissions in addition to local sources and sources in neighboring states. The *Wisconsin* decision's holding in regard to international contribution (discussed in more detail later) is equally applicable to an upwind state's claims that some other state's emissions, or local emissions, are more to blame than its own emissions. See 938 F.3d 303 at 323–25 (''an upwind state can 'contribute' to downwind nonattainment even if its emissions are not the but-for cause'').

OEPA also put forward an argument that onroad mobile sources in downwind states should be more stringently controlled before any additional sources in upwind states. This is equivalent to the claim that local emissions reductions from the jurisdiction where the downwind receptor is located must first be implemented and accounted for before imposing obligations on upwind states under the interstate transport provision. However, there is nothing in the CAA that supports that position, and it does not provide grounds on which to approve OEPA's SIP submission. The D.C. Circuit has held on five different occasions that the timing framework for addressing interstate transport obligations must be consistent with the downwind areas' attainment schedule. In particular, for the ozone NAAQS, the states and EPA are to address interstate transport obligations ''as expeditiously as practicable'' and no later than the attainment schedule set in accordance with CAA section 181(a). *See North Carolina,* 531 F.3d at 911–13; *Wisconsin,* 938 F.3d at 313–20; *Maryland,* 958 F.3d at 1204; *New York* v. *EPA,* 964 F.3d 1214, 1226 (DC Cir. 2020); *New York* v. *EPA,* 781 Fed. App'x 4, 6–7 (DC Cir. 2019). The court in *Wisconsin* explained that downwind jurisdictions often may need to heavily rely on emissions reductions from upwind states in order to achieve attainment of the NAAQS, 938 F.3d at 316–17; such states would face increased regulatory burdens including the risk of bumping up to a higher nonattainment classification if attainment is not reached by the relevant deadline, *Maryland,* 958 F.3d at 1204. The statutory framework of the CAA and these cases establish clearly that states and EPA must address interstate transport obligations in line with the attainment schedule provided in the Act in order to timely assist downwind states in attaining and maintain the NAAQS, and this schedule is ''central to the regulatory scheme.'' *Wisconsin,* 938 F.3d at 316 (quoting *Sierra Club* v. *EPA,* 294 F.3d 155, 161 (D.C. Cir. 2002)).

As for the suggestion that EPA should assess the SAFE Vehicles Rule's impact on ozone before finalizing, EPA and the National Highway Traffic Safety Administration finalized the revisions to the greenhouse gas (GHG) and CAFE standards for light duty vehicles in 2020.[107] However, that final action is not expected to have a meaningful impact on ozone-precursor emissions. Because the vehicles affected by the

[105] EPA notes that OEPA submitted a source specific NO_X emission limit contained in the Ohio NO_X RACT Rules for approval into the Ohio SIP, approved by EPA on September 8, 2017 (82 FR 42451).

[106] Indiana's SIP submission, Appendix E at 4, 17.

[107] *The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021–2026 Passenger Cars and Light Trucks,* 85 FR 24174 (April 30, 2020) (SAFE Vehicles Rule).

2017–2025 GHG standards would still need to meet applicable criteria pollutant emissions standards (*e.g.,* the Tier 3 emissions standards; *see* 79 FR 23414), the SAFE Vehicles Rule anticipated that any impacts of the SAFE Vehicles Rule on ozone precursor emissions ''would most likely be far too small to observe.'' *See* 85 FR 25041. On December 30, 2021, EPA revised the GHG light duty standards for model years 2023 and later to make them more stringent.[108] The impacts of the SAFE Vehicles Rule are included in the 2016v2 onroad emissions as described in the emissions modeling TSD in Section 4.3.2.[109]

Further, OEPA makes the argument that assigning all responsibility to Ohio and other upwind states for downwind air quality problems despite home state and international contributions would result in overcontrol of Ohio sources. OEPA's reasoning related to emissions in downwind states and international emissions is inapplicable to the requirements of CAA section 110(a)(2)(D)(i)(I). As an initial matter, CAA section 110(a)(2)(D)(i)(I) only requires that upwind states prohibit those emissions that ''contribute significantly to nonattainment'' or ''interfere with maintenance of the NAAQS.'' It does not require that the upwind states bear the full burden of bringing downwind states into attainment or that a threshold ppb improvement from upwind states emission reductions be met in order for them to be required (once the 1 percent threshold has been satisfied). However, the good neighbor provision does require states and EPA to address interstate transport of air pollution that contributes to downwind states' ability to attain and maintain NAAQS. Whether emissions from other states or other countries also contribute to the same downwind air quality issue is irrelevant in assessing whether a downwind state has an air quality problem, or whether an upwind state is significantly contributing to that problem. States are not obligated under CAA section 110(a)(2)(D)(i)(I) to reduce emissions sufficient on their own to resolve downwind receptors' nonattainment or maintenance problems. Rather, states are obligated to eliminate their own ''significant contribution'' or ''interference'' with the ability of other states to attain or maintain the NAAQS.

Indeed, after OEPA submitted Ohio's SIP submission, the D.C. Circuit in *Wisconsin* specifically rejected petitioner arguments suggesting that upwind states should be excused from good neighbor obligations on the basis that some other source of emissions (whether international or another upwind state) could be considered the ''but-for'' cause of downwind air quality problem. 938 F.3d 303 at 323–324. The court viewed petitioners' arguments as essentially an argument ''that an upwind state 'contributes significantly' to downwind nonattainment only when its emissions are the sole cause of downwind nonattainment.'' 938 F.3d 303 at 324. The court explained that ''an upwind state can 'contribute' to downwind nonattainment even if its emissions are not the but-for cause.'' Id. at 324–325. See also *Catawba County* v. *EPA,* 571 F.3d 20, 39 (D.C. Cir. 2009) (rejecting the argument ''that 'significantly contribute' unambiguously means 'strictly cause'' because there is ''no reason why the statute precludes EPA from determining that [an] addition of [pollutant] into the atmosphere is significant even though a nearby county's nonattainment problem would still persist in its absence''); *Miss. Comm'n on Envtl. Quality* v. *EPA,* 790 F.3d 138, 163 n.12 (D.C. Cir. 2015) (observing that the argument that ''there likely would have been no violation at all . . . if it were not for the emissions resulting from [another source]'' is ''merely a rephrasing of the but-for causation rule that we rejected in Catawba County.''). Therefore, a state is not excused from eliminating its significant contribution on the basis that international emissions, or emissions from other sources, also contribute some amount of pollution to the same receptors to which the state is linked.

Finally, as part of its cost-effectiveness evaluation, OEPA relied on its EGUs being subject to the CSAPR Update (which reflected a stringency at the nominal marginal cost threshold of $1400/ton (2011$) for the 2008 8-hour ozone NAAQS) to argue that it has already implemented all cost-effective emissions reductions. For non-EGUs, OEPA did not identify a cost-effectiveness threshold, but rather listed a few regulations (the Boiler MACT and other MACT categories, BART, SO_2 Data Requirements Rule and other unidentified Federal regulations) to draw the conclusion that emissions reductions had been achieved from non-EGUs in Ohio. First, the CSAPR Update did not regulate non-electric generating units, and thus this analysis is incomplete. *See Wisconsin,* 938 F.3d at 318–20. Second, relying on the CSAPR Update's (or any other CAA program's) determination of cost-effectiveness without further Step 3 analysis is not approvable. Cost-effectiveness must be assessed in the context of the specific CAA program; assessing cost-effectiveness in the context of ozone transport should reflect a more comprehensive evaluation of the nature of the interstate transport problem, the total emissions reductions available at several cost thresholds, and the air quality impacts of the reductions at downwind receptors. While EPA has not established a benchmark cost-effectiveness value for 2015 ozone NAAQS interstate transport obligations, because the 2015 ozone NAAQS is a more stringent and more protective air quality standard, it is reasonable to expect control measures or strategies to address interstate transport under this NAAQS to reflect higher marginal control costs. As such, the marginal cost threshold of $1,400/ton for the CSAPR Update (which addresses the 2008 ozone NAAQS and is in 2011$) is not an appropriate cost threshold and cannot be approved as a benchmark to use for interstate transport SIP submissions for the 2015 ozone NAAQS. The lack of a sufficient cost-effectiveness evaluation also means that Ohio's claims that requiring additional emissions reductions would result in overcontrol is premature. Ohio's submission does present sufficient evidence to support that conclusion.

In addition, the updated EPA modeling captures all existing CSAPR trading programs in the baseline, and that modeling confirms that these control programs were not sufficient to eliminate Ohio's linkage at Steps 1 and 2 under the 2015 ozone NAAQS. The state was therefore obligated at Step 3 to assess *additional* control measures using a multifactor analysis.

Finally, relying on a FIP at Step 3 is per se not approvable if the state has not adopted that program into its SIP and instead continues to rely on the FIP. States may not rely on non-SIP measures to meet SIP requirements. *See* CAA section 110(a)(2)(D) (''Each such [SIP] shall . . . contain adequate provisions . . . .''). *See also* CAA section 110(a)(2)(A); *Committee for a Better Arvin* v. *U.S. E.P.A.,* 786 F.3d 1169, 1175–76 (9th Cir. 2015) (holding that measures relied on by state to meet CAA requirements must be included in the SIP). We therefore propose that Ohio was required to analyze emissions from the sources and other emissions activity from within the state to determine whether its contributions were

[108] *Revised 2023 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions Standards,* 86 FR 74434 (December 30, 2021).

[109] See Technical Support Document (TSD) Preparation of Emissions Inventories for the 2016v2 North American Emissions Modeling Platform included in the Headquarters docket ID No. EPA–HQ–OAR–2021–0663.

significant, and we propose to disapprove its submission because Ohio failed to do so.

5. Evaluation of Information Provided Regarding Step 4

Step 4 of the 4-step interstate transport framework calls for development of permanent and federally enforceable control strategies to achieve the emissions reductions determined to be necessary at step 3 to eliminate significant contribution to nonattainment or interference with maintenance of the NAAQS. OEPA identified NO_X RACT rules limiting NO_X emissions from new and existing sources, VOC reduction measures through control of architectural and industrial maintenance coatings, and reallocation of funds received through a settlement with Volkswagen to be applied to on-road and off-road mobile emissions reductions through replacements and infrastructure updates.[110] However, OEPA did not revise Ohio's SIP to include these emission reductions in a revision to its SIP to ensure the reductions were permanent and enforceable.[105] As a result, EPA proposes to disapprove OEPA submittal on the separate, additional basis that the Ohio has not included permanent and enforceable emissions reductions in its SIP as necessary to meet the obligations of CAA section 110(a)(2)(d)(i)(I).

6. Conclusion

Based on EPA's evaluation of Ohio's SIP submission, EPA is proposing to find that the portion of Ohio's September 28, 2018 SIP submission addressing CAA section 110(a)(2)(D)(i)(I) does not meet the state's interstate transport obligations for the 2015 ozone NAAQS, because it fails to contain the necessary provisions to eliminate emissions that will contribute significantly to nonattainment or interfere with maintenance of the 2015 ozone NAAQS in any other state.

F. Wisconsin

1. Evaluation of Information Provided by Wisconsin Regarding Steps 1 and 2

WDNR did not perform an analysis under the 4-step framework to assess Wisconsin's good neighbor obligations. The submission did not identify areas in other states that may have trouble attaining or maintaining the 2015 ozone NAAQS. Nor did WDNR perform a Step 2 analysis to identify Wisconsin's contribution to areas that are projected to have difficulty attaining or maintaining the NAAQS or reach a conclusion about whether Wisconsin is linked to any receptors.

2. Results of EPA's Step 1 and Step 2 Modeling and Findings for Wisconsin

As described in Section I, EPA performed air quality modeling using the 2016v2 emissions platform to project design values and contributions for 2023. These data were examined to determine if Wisconsin contributes at or above the threshold of one percent of the 2015 ozone NAAQS (0.70 ppb) to any downwind nonattainment or maintenance receptor. As shown in Table 7, the data[111] indicate that in 2023, emissions from Wisconsin contribute greater than one percent of the standard to nonattainment or maintenance-only receptors in Illinois.[112] Therefore, based on EPA's evaluation of the information submitted by WDNR, and based on EPA's most recent modeling results for 2023, EPA proposes to find that Wisconsin is linked at Steps 1 and 2 and has an obligation to assess potential emissions reductions from sources or other emissions activity at Step 3 of the 4-step framework.

TABLE 7—WISCONSIN LINKAGE RESULTS BASED ON EPA UPDATED 2023 MODELING

Receptor ID	Location (county, state)	Nonattainment/maintenance	2023 Average design value (ppb)	2023 Maximum design value (ppb)	Wisconsin contribution (ppb)
170310032	Cook, IL	Maintenance	69.8	72.4	2.61
170314201	Cook, IL	Maintenance	69.9	73.4	2.55
170310076	Cook, IL	Maintenance	69.3	72.1	2.47
170310001	Cook, IL	Maintenance	69.6	73.4	2.41
170317002	Cook, IL	Maintenance	70.1	73.0	1.47

As shown in Table 7, the updated EPA modeling identifies Wisconsin's maximum contribution Because the entire technical basis for the state's submittal is that the state has satisfied good neighbor obligations through implementation of various rules, including CSAPR Update, EPA proposes to disapprove the SIP submission based on EPA's finding that WDNR has not provided adequate information to allow EPA to assess whether Wisconsin has adequate provisions to prohibit emissions in amounts which will contribute significantly to nonattainment or interfere with maintenance in any other state. Though this deficiency would be sufficient on its own to disapprove Wisconsin's good neighbor submission, EPA will proceed to evaluate the additional points raised by WDNR at Step 3 of the 4-step interstate transport framework.

3. Evaluation of Information Provided Regarding Step 3

At Step 3 of the 4-step interstate transport framework, a state's emissions are further evaluated, in light of multiple factors, including air quality and cost considerations, to determine what, if any, emissions significantly contribute to nonattainment or interfere with maintenance and, thus, must be eliminated under CAA section 110(a)(2)(D)(i)(I).

[110] Pointing to anticipated upcoming emission reductions, even if they were not included in the analysis at Steps 1 and 2, is not sufficient as a Step 3 analysis, for the reasons discussed in Section [Ohio step 3 analysis section]. In this section, we explain that to the extent such anticipated reductions are not included in the SIP and rendered permanent and enforceable, reliance on such anticipated reductions is also insufficient at Step 4.

[111] Design values and contributions at individual monitoring sites nationwide are provide in the file ''2016v2_DVs_state_contributions.xlsx'' which is included in docket ID No. EPA–HQ–OAR–2021–0663.

[112] These modeling results are consistent with the results of a prior round of 2023 modeling using the 2016v1 emissions platform which became available to the public in the fall of 2020 in the Revised CSAPR Update, as noted in Section I. That modeling showed that Wisconsin had a maximum contribution greater than 0.70 ppb to at least one nonattainment or maintenance-only receptor in 2023. These modeling results are included in the file ''Ozone Design Values And Contributions Revised CSAPR Update.xlsx'' in docket ID No. EPA–HQ–OAR–2021–0663.

To effectively evaluate which emissions in the state should be deemed ''significant'' and therefore prohibited, states generally should prepare an accounting of sources and other emissions activity for relevant pollutants and assess potential, additional emissions reduction opportunities and resulting downwind air quality improvements. EPA has consistently applied this general approach (*i.e.,* Step 3 of the 4-step interstate transport framework) when identifying emissions contributions that the Agency has determined to be ''significant'' (or interfere with maintenance) in each of its prior Federal, regional ozone transport rulemakings, and this interpretation of the statute has been upheld by the Supreme Court. *See EME Homer City,* 572 U.S. 489, 519 (2014). While EPA has not directed states that they must conduct a Step 3 analysis in precisely the manner EPA has done in its prior regional transport rulemakings, state implementation plans addressing the obligations in CAA section 110(a)(2)(D)(i)(I) must prohibit ''any source or other type of emissions activity within the state'' from emitting air pollutants which will contribute significantly to downwind air quality problems. Thus, states must complete something similar to EPA's analysis (or an alternative approach to defining ''significance'' that comports with the statute's objectives) to determine whether and to what degree emissions from a state should be ''prohibited'' to eliminate emissions that will ''contribute significantly to nonattainment in, or interfere with maintenance of'' the NAAQS in any other state. The state did not conduct such an analysis in their SIP submission.

WDNR listed several rules relevant to interstate transport and seemingly relied on its participation in LADCO to suggest sources in Wisconsin are adequately controlled for purposes of the good neighbor provision for the 2015 ozone NAAQS. WDNR mentioned Wisconsin's FIPs under CSAPR and CSAPR Update. EPA disagrees that this is a sufficient approach for assessing good neighbor obligations.

First, the CSAPR Update did not regulate non-electric generating units, and thus this analysis is incomplete. *See Wisconsin,* 938 F.3d at 318–20. Second, relying on the CSAPR Update (or any other CAA program) without further Step 3 analysis is not approvable. While EPA has not established a benchmark cost-effectiveness value for 2015 ozone NAAQS interstate transport obligations, because the 2015 ozone NAAQS is a more stringent and more protective air quality standard, it is reasonable to expect control measures or strategies to address interstate transport under this NAAQS to reflect higher marginal control costs. As such, the CSAPR Update Rule is not an appropriate analysis and cannot be approved to satisfy interstate transport obligations for the 2015 ozone NAAQS.

In addition, the updated EPA modeling captures all existing CSAPR trading programs in the baseline, and that modeling confirms that these control programs were not sufficient to eliminate the Wisconsin's linkage at Steps 1 and 2 under the 2015 ozone NAAQS. The state was therefore obligated at Step 3 to assess *additional* control measures using a multifactor analysis.

Finally, relying on a FIP at Step 3 is *per se* not approvable if the state has not adopted that program into its SIP and instead continues to rely on the FIP. States may not rely on non-SIP measures to meet SIP requirements. *See* CAA section 110(a)(2)(D) (''Each such [SIP] shall . . . contain adequate provisions . . . .''). *See also* CAA section 110(a)(2)(A); *Committee for a Better Arvin* v. *U.S. E.P.A.,* 786 F.3d 1169, 1175–76 (9th Cir. 2015) (holding that measures relied on by state to meet CAA requirements must be included in the SIP).

WDNR cited continued consultation with LADCO, three Wis. Admin. Code subsections that could be relied on ''if needed'' to address disagreements for SIP development in other states' nonattainment areas, and an adequate PSD program. WDNR did not attempt to revise Wisconsin's SIP to include to include all these measures. In general, the listing of existing or on-the-way control measures, including potential future emissions reductions obtained through participation in LADCO, whether approved into the state's SIP or not, does not substitute for a complete Step 3 analysis under EPA's 4-step framework to define ''significant contribution.'' WDNR did not identify control measures, provide an assessment of the overall effects of these measures, note when the reductions would be achieved, or explain what the overall resulting air quality effects would be at identified out of state receptors. WDNR did not evaluate additional, potential emissions control opportunities, or their costs or impacts, or attempt to analyze whether, if applied more broadly across linked states, the emissions reductions would constitute the elimination of significant contribution on a regional scale. WDNR did not offer an explanation as to whether any faster or more stringent emissions reductions that may be available were prohibitively costly or infeasible. Although EPA acknowledges states are not necessarily bound to follow its own analytical framework at Step 3, WDNR did not attempt to determine or justify an appropriate uniform cost-effectiveness threshold. This would have been similar to the approach to defining significant contribution that EPA has applied in prior rulemakings such as CSAPR and or the CSAPR Update, even if such an analysis is not technically mandatory.

As mentioned previously, Wis. Admin. Code NR 285.15, entitled Interstate Agreement, gives the governor the authority to enter an agreement to solve interstate pollution transport with Illinois, Indiana, and Michigan if the area includes portions of both Wisconsin and Illinois. Furthermore, Wis. Admin. Code, NR 285.1560 does not provide for emission reductions toward resolving good neighbor obligations, as while the statute allows for consultation, there is no indication this rule has been exercised to resolve good neighbor obligations or explain how the rule would impact areas in Illinois to which Wisconsin is linked. Under the *Wisconsin* decision, states and EPA may not delay implementation of measures necessary to address good neighbor requirements beyond the next applicable attainment date without a showing of impossibility or necessity. *See* 938 F.3d at 320. Wisconsin's submittal is insufficient to the extent the implementation timeframes for the cited control measures were left unidentified, unexplained, or too uncertain to permit EPA to form a judgment as to whether the timing requirements for good neighbor obligations have been met.

We therefore propose that Wisconsin was required to analyze emissions from the sources and other emissions activity from within the state to determine whether its contributions were significant, and we propose to disapprove its submission because Wisconsin failed to do so.

4. Evaluation of Information Provided Regarding Step 4

Step 4 of the 4-step interstate transport framework calls for development of permanent and federally enforceable control strategies to achieve the emissions reductions determined to be necessary at Step 3 to eliminate significant contribution to nonattainment or interference with maintenance of the NAAQS. As mentioned previously, Wisconsin's SIP submission did not contain an evaluation of additional emission

control opportunities (or establish that no additional controls are required), thus, no information was provided at Step 4. As a result, EPA proposes to disapprove Wisconsin' submittal on the separate, additional basis that the state has not developed permanent and enforceable emissions reductions necessary to meet the obligations of CAA section 110(a)(2)(d)(i)(I).

5. Conclusion

Based on EPA's evaluation of Wisconsin's SIP submission, EPA is proposing to find that the portion of Wisconsin's September 14, 2018 SIP submission addressing CAA section 110(a)(2)(D)(i)(I) does not meet Wisconsin's interstate transport obligations, because it fails to contain the necessary provisions to eliminate emissions that will contribute significantly to nonattainment or interfere with maintenance of the 2015 ozone NAAQS in any other state.

IV. Proposed Action

We are proposing to disapprove the portions of Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin's SIP submissions pertaining to interstate transport of air pollution which will significantly contribute to nonattainment or interfere with maintenance of the 2015 ozone NAAQS in other states. Under CAA section 110(c)(1), disapproval would establish a 2-year deadline for EPA to promulgate a FIP for states to address the CAA section 110(a)(2)(D)(i)(I) interstate transport requirements pertaining to significant contribution to nonattainment and interference with maintenance of the 2015 ozone NAAQS in other states, unless EPA approves a SIP that meets these requirements. Disapproval does not start a mandatory sanctions clock for Illinois, Indiana, Michigan, Minnesota, Ohio, or Wisconsin. The remaining elements of the states' submissions are not addressed in this action and either have been or will be acted on in a separate rulemaking.

V. Statutory and Executive Order Reviews

A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review

This action is not a significant regulatory action and was therefore not submitted to the Office of Management and Budget for review.

B. Paperwork Reduction Act (PRA)

This proposed action does not impose an information collection burden under the PRA because it does not contain any information collection activities.

C. Regulatory Flexibility Act (RFA)

I certify that this action will not have a significant economic impact on a substantial number of small entities under the RFA. This action merely proposes to disapprove a SIP submission as not meeting the CAA.

D. Unfunded Mandates Reform Act (UMRA)

This action does not contain any unfunded mandate as described in UMRA, 2 U.S.C. 1531–1538, and does not significantly or uniquely affect small governments. The action imposes no enforceable duty on any state, local or tribal governments or the private sector.

E. Executive Order 13132: Federalism

This action does not have federalism implications. It will not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government.

F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments

This action does not have tribal implications as specified in Executive Order 13175. This action does not apply on any Indian reservation land, any other area where EPA or an Indian tribe has demonstrated that a tribe has jurisdiction, or non-reservation areas of Indian country. Thus, Executive Order 13175 does not apply to this action.

G. Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks

EPA interprets Executive Order 13045 as applying only to those regulatory actions that concern environmental health or safety risks that EPA has reason to believe may disproportionately affect children, per the definition of ''covered regulatory action'' in section 2–202 of the Executive Order. This action is not subject to Executive Order 13045 because it merely proposes to disapprove a SIP submission as not meeting the CAA.

H. Executive Order 13211, Actions That Significantly Affect Energy Supply, Distribution or Use

This action is not subject to Executive Order 13211, because it is not a significant regulatory action under Executive Order 12866.

I. National Technology Transfer and Advancement Act

This rulemaking does not involve technical standards.

J. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations

EPA believes the human health or environmental risk addressed by this action will not have potential disproportionately high and adverse human health or environmental effects on minority, low-income or indigenous populations. This action merely proposes to disapprove a SIP submission as not meeting the CAA.

K. CAA Section 307(b)(1)

Section 307(b)(1) of the CAA governs judicial review of final actions by EPA. This section provides, in part, that petitions for review must be filed in the D.C. Circuit: (i) When the agency action consists of ''nationally applicable regulations promulgated, or final actions taken, by the Administrator,'' or (ii) when such action is locally or regionally applicable, if ''such action is based on a determination of nationwide scope or effect and if in taking such action the Administrator finds and publishes that such action is based on such a determination.'' For locally or regionally applicable final actions, the CAA reserves to EPA complete discretion whether to invoke the exception in (ii).[113]

EPA anticipates that this proposed rulemaking, if finalized, would be ''nationally applicable'' within the meaning of CAA section 307(b)(1) because it would take final action on SIP submittals for the 2015 ozone NAAQS for six states, which are located in three different Federal judicial circuits. It would apply uniform, nationwide analytical methods, policy judgments, and interpretation with respect to the same CAA obligations, *i.e.,* implementation of good neighbor requirements under CAA section 110(a)(2)(D)(i)(I) for the 2015 ozone NAAQS for states across the country, and final action would be based on this common core of determinations, described in further detail below.

If EPA takes final action on this proposed rulemaking, in the alternative,

[113] In deciding whether to invoke the exception by making and publishing a finding that an action is based on a determination of nationwide scope or effect, the Administrator takes into account a number of policy considerations, including his judgment balancing the benefit of obtaining the D.C. Circuit's authoritative centralized review versus allowing development of the issue in other contexts and the best use of agency resources.

the Administrator intends to exercise the complete discretion afforded to him under the CAA to make and publish a finding that the final action (to the extent a court finds the action to be locally or regionally applicable) is based on a determination of ''nationwide scope or effect'' within the meaning of CAA section 307(b)(1). Through this rulemaking action (in conjunction with a series of related actions on other SIP submissions for the same CAA obligations), EPA interprets and applies section 110(a)(2)(d)(i)(I) of the CAA for the 2015 ozone NAAQS based on a common core of nationwide policy judgments and technical analysis concerning the interstate transport of pollutants throughout the continental U.S. In particular, EPA is applying here (and in other proposed actions related to the same obligations) the same, nationally consistent 4-step framework for assessing good neighbor obligations for the 2015 ozone NAAQS. EPA relies on a single set of updated, 2016-base year photochemical grid modeling results of the year 2023 as the primary basis for its assessment of air quality conditions and contributions at steps 1 and 2 of that framework. Further, EPA proposes to determine and apply a set of nationally consistent policy judgments to apply the 4-step framework. EPA has selected a nationally uniform analytic year (2023) for this analysis and is applying a nationally uniform approach to nonattainment and maintenance receptors and a nationally uniform approach to contribution threshold analysis.[114] For these reasons, the Administrator intends, if this proposed action is finalized, to exercise the complete discretion afforded to him under the CAA to make and publish a finding that this action is based on one or more determinations of nationwide scope or effect for purposes of CAA section 307(b)(1).[115]

[114] A finding of nationwide scope or effect is also appropriate for actions that cover states in multiple judicial circuits. In the report on the 1977 Amendments that revised section 307(b)(1) of the CAA, Congress noted that the Administrator's determination that the ''nationwide scope or effect'' exception applies would be appropriate for any action that has a scope or effect beyond a single judicial circuit. See H.R. Rep. No. 95–294 at 323, 324, reprinted in 1977 U.S.C.C.A.N. 1402–03.

[115] EPA may take a consolidated, single final action on all of the proposed SIP disapproval actions with respect to obligations under CAA section 110(a)(2)(D)(i)(I) for the 2015 ozone NAAQS. Should EPA take a single final action on all such disapprovals, this action would be nationally applicable, and EPA would also anticipate, in the alternative, making and publishing a finding that such final action is based on a determination of nationwide scope or effect.

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Ozone.

Authority: 42 U.S.C. 7401 *et seq.*

Dated: January 31, 2022.

Debra Shore,

Regional Administrator, Region 5.

[FR Doc. 2022–02953 Filed 2–18–22; 8:45 am]

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Part IV

Department of Agriculture

Animal and Plant Health Inspection Service

9 CFR Parts 1, 2, and 3

Standards for Birds Not Bred for Use in Research Under the Animal Welfare Act; Proposed Rule

DEPARTMENT OF AGRICULTURE

Animal and Plant Health Inspection Service

9 CFR Parts 1, 2, and 3

[Docket No. APHIS–2020–0068]

RIN 0579–AE61

Standards for Birds Not Bred for Use in Research Under the Animal Welfare Act

AGENCY: Animal and Plant Health Inspection Service, USDA.

ACTION: Proposed rule.

SUMMARY: We are proposing to amend the regulations to establish standards governing the humane handling, care, treatment, and transportation of birds, excluding birds bred for use in research, covered under the Animal Welfare Act. This action would ensure the humane handling, care, treatment, and transportation of birds not bred for use in research and covered under the Act.

DATES: We will consider all comments that we receive on or before April 25, 2022.

ADDRESSES: You may submit comments by either of the following methods:

- *Federale Rulemaking Portal:* Go to *www.regulations.gov.* Enter APHIS–2020–0068 in the Search field. Select the Documents tab, then select the Comment button in the list of documents.
- *Postal Mail/Commercial Delivery:* Send your comment to Docket No. APHIS–2020–0068, Regulatory Analysis and Development, PPD, APHIS, Station 3A–03.8, 4700 River Road, Unit 118, Riverdale, MD 20737–1238.

Supporting documents and any comments we receive on this docket may be viewed at *www.regulations.gov* or in our reading room, which is located in room 1620 of the USDA South Building, 14th Street and Independence Avenue SW, Washington, DC. Normal reading room hours are 8 a.m. to 4:30 p.m., Monday through Friday, except holidays. To be sure someone is there to help you, please call (202) 799–7039 before coming.

FOR FURTHER INFORMATION CONTACT: Dr. Cody M. Yager, DVM, Supervisory Animal Care Specialist, Animal Care, APHIS, 4700 River Road Unit 84, Riverdale, MD 20737; (301) 851–3751; *cody.m.yager@usda.gov.* Secondary Contact: Dr. David Miller, DVM, Ph.D., National Animal Welfare Specialist, Animal Care, APHIS, 2150 Centre Ave., Building B, Mailstop 3W11, Fort Collins, CO 80526; (301) 851–3751; *david.s.miller@usda.gov.*

SUPPLEMENTARY INFORMATION:

Background

Under the Animal Welfare Act (AWA or the Act, 7 U.S.C. 2131 *et seq.*), the Secretary of Agriculture is authorized to promulgate standards and other requirements governing the humane handling, care, treatment, and transportation of certain animals by dealers, research facilities, exhibitors, operators of auction sales, and carriers and intermediate handlers. The Secretary has delegated responsibility for administering the AWA to the Administrator of the U.S. Department of Agriculture's (USDA) Animal and Plant Health Inspection Service (APHIS). Within APHIS, the responsibility for administering the AWA has been delegated to the Deputy Administrator for Animal Care. Regulations and standards are established under the AWA and are contained in 9 CFR parts 1, 2, and 3 (referred to below as the regulations). Part 1 contains definitions for terms used in parts 2 and 3; part 2 provides administrative requirements and sets forth institutional responsibilities for regulated parties; and part 3 contains specifications for the humane handling, care, treatment, and transportation of animals covered by the AWA. Currently, part 3 consists of subparts A through E, which contain specific standards for dogs and cats, guinea pigs and hamsters, rabbits, nonhuman primates, and marine mammals, respectively, and subpart F, which sets forth general standards for warmblooded animals not otherwise specified in that part.

The Act initially defined *animal* to mean ''live dogs, cats, monkeys (nonhuman primate mammals), guinea pigs, hamsters, and rabbits.'' In 1970, amendments to the Act expanded the definition of *animal* to include ''any live or dead dog, cat, monkey (nonhuman primate mammal), guinea pig, hamster, rabbit, or such other warm-blooded animal, as the Secretary may determine is being used, or is intended for use, for research, testing, experimentation, or exhibition purposes, or as a pet,'' and to explicitly exclude horses not used for research purposes and other farm animals; amendments in 1976 clarified that dogs used for hunting, security, or breeding purposes fell within the scope of the Act.

The Farm Security and Rural Investment Act of 2002 [1] (the ''Farm Bill'') included provisions that amended the definition of *animal* in the Act yet again by specifically excluding birds, rats of the genus *Rattus,* and mice of the genus *Mus,* bred for use in research. While the definition of *animal* contained in the AWA regulations at that time excluded rats of the genus *Rattus* and mice of the genus *Mus* bred for use in research, that definition also excluded all birds, not just those birds bred for use in research. Congress' amendment to the Act meant that birds not bred for research and not otherwise excluded under its provisions were, for the first time, explicitly subject to AWA regulation.

In a final rule published on June 4, 2004 in the **Federal Register** (69 FR 31513–31514, Docket No. 98–106–3), we amended the definition of *animal* in the AWA regulations to make it consistent with the revised definition of *animal* in the Act by limiting the exclusion to only those birds bred for use in research (*i.e.,* breeding stock). On the same date, we published an advance notice of proposed rulemaking (69 FR 31537–31541, Docket No. 98–106–4) notifying the public that we intended to extend enforcement of the AWA to birds not bred for use in research that are sold as pets at the wholesale level, or transported in commerce, or used for exhibition, research, teaching, testing, or experimentation purposes. To determine what regulations and standards are appropriate for those birds, we solicited and received 7,486 public comments and began reviewing these comments preliminary to drafting a proposed rule.

Beginning in 2013, several animal welfare organizations filed lawsuits against USDA for failure to promulgate regulations for birds not bred for use in research. As a result of one of those lawsuits,[2] on January 10, 2020, the U.S. Court of Appeals for the D.C. Circuit found that the AWA requires APHIS to issue standards applicable to birds not bred for use in research and that APHIS has not issued such standards. On remand, the U.S. District Court for the District of Columbia granted the parties' joint motion to stay the action and adopted the parties' proposed rulemaking schedule, ordering that USDA must publish a proposed rule establishing regulatory standards for birds not more than 18 months after publication of a notice of listening sessions, and promulgate them in a final rule to be published in the **Federal Register** no later than 1 year from that proposed rule's publication date. We

[1] Public Law 107–171, May 13, 2002; the text can be viewed at *https://www.govinfo.gov/content/pkg/PLAW-107publ171/pdf/PLAW-107publ171.pdf.*

[2] *American Anti-Vivisection Society and Avian Welfare Coalition* v. *USDA*, 946 F.3d 615 (D.C. Cir. 2020): *https://www.cadc.uscourts.gov/internet/opinions.nsf/80846063820C52F6852584EB005413E4/$file/19-5015-1823484.pdf.*

published the notice for a listening session, discussed below, on August 20, 2020, which under the Court's order requires that we publish the proposed rule no later than Tuesday, February 22, 2022.[3]

Beyond the Court's requirement that we publish a proposed rule, we believe there to be a significant welfare-based need for regulating birds and agree that this rulemaking is necessary. Although we currently do not consider birds when inspecting regulated facilities maintaining other animals due to the absence of AWA regulations regarding standards for birds, APHIS receives complaints from the public about inhumane conditions for birds. Additionally, if APHIS inspectors find birds kept in such conditions in the course of other duties, they are instructed to report their observations to the appropriate local or State authority. Moreover, some commenters during the listening sessions provided video and photographic documentation of birds held in unsanitary and inhumane conditions at several facilities across the United States. Based on our experience with animal welfare issues in the currently regulated community, we recognize that there are common challenges to maintaining humane conditions for animals—regardless of species—pertaining to shelter, health, husbandry, transport, and related needs. As a community covered under the AWA, persons dealing in, exhibiting, and transporting birds are also responsible for providing these needs. The standards we are proposing for birds include requirements that ensure animal welfare in the same areas of need.

Accordingly, we are proposing to establish new regulations and standards and amend existing regulations governing the humane handling, care, treatment, and transportation of birds covered by the AWA. Specifically, we propose to establish and amend definitions of terms used throughout parts 2 and 3 to inform licensees and registrants of their responsibilities under the Act with respect to birds that are not bred for use in research and not otherwise exempted from regulation. We also propose to amend several sections in part 2 to clarify the requirements and responsibilities for regulated parties with birds. Finally, we propose to establish specific standards in a new subpart in part 3 for the humane handling, care, treatment, and transportation of birds covered under the AWA.

[3] February 20, 2022, falls on a Sunday, and Monday, February 21, is a Federal holiday. As a result, the Court-imposed deadline would be the next business day that the **Federal Register** publishes, which is Tuesday, February 22.

Notice of Listening Sessions

As noted above, the schedule ordered by the District Court required APHIS to publish a notice of virtual listening sessions to gather comments on the topic of establishing standards for birds prior to drafting a proposed rule. We scheduled three virtual listening sessions and published a notice in the **Federal Register** (85 FR 51368, Docket No. APHIS–2020–0068) asking the public to comment on establishing exemptions for dealers, exhibitors, and certain bird species and activities; licensing thresholds; performance-based standards; and ways of minimizing potential disturbances to nesting and breeding resulting from compliance inspections and implementation of standards.

We received 10,330 written comments on *www.regulations.gov*[4] in response to the listening session notice, as well as approximately 75 comments excerpted from the three listening session transcripts. Comments came from breeders and fanciers of finches, canaries, parrots, cockatiels, and other pet and show birds; raptor breeders, conservationists, and hobbyists; exotic poultry hobbyists; owners and breeders of show and racing pigeons; national and regional animal welfare organizations; organizations representing zoos, shelters, and rescues; avian veterinarians, ornithologists, and aviculturists; organizations promoting the conservation of waterfowl and wild birds; a Federal government agency; and members of the public. We have reviewed and considered all of the comments, which we have summarized below.

Exemptions From Licensing

The current regulations in § 2.1(a)(3) include licensing exemptions based on criteria such as how the animals are used, whether and how they are sold, and size of business based on gross income or the number of covered animals maintained.

An exemption is provided for dealers who maintain four or fewer breeding females of pet animals, small exotic or wild animals, and/or domesticated farm type animals and offer their offspring for sale. Also exempted in this section are retail pet stores as the term is defined in § 1.1,[5] dealers who breed and sell 25 or fewer dogs and/or cats to research facilities annually, individuals who solely buy, sell, transport, or negotiate the sale, purchase, or transportation of an animal for food or fiber, and exhibitors covered under the AWA who maintain eight or fewer pet animals, small exotic or wild animals (sometimes referred to colloquially as ''pocket'' mammals), and domesticated farm type animals for exhibition. An income threshold exemption applies to any person who sells or negotiates the sale or purchase of any animal except wild or exotic animals, dogs, or cats, and who derives no more than $500 gross income from the sale of such animals during any calendar year. Finally, any person who buys animals solely for his or her own use or enjoyment and does not sell or exhibit animals is exempt from licensing if not otherwise required to obtain one.

During the listening sessions, we asked for comments and supporting data on adding or revising licensing exemptions for certain dealers, exhibitors, operators of auction sales, and carriers and intermediate handlers of birds not bred for use in research. We also asked specifically if certain species of birds should be exempted. The comments that immediately follow address these questions, including the status of birds at shelters, birds that are part of conservation efforts, and the scope of regulatory authority. Comments for exemptions based on business size appear in the section following this one, under ''De Minimis Exemptions.''

Several commenters suggested that all bird breeders be exempted from regulation, with one stating that it has not been demonstrated that the current welfare of birds in breeding facilities are deficient and that bird breeders are continually improving captive bird care. A few commenters recommended that all persons exhibiting birds at shows be exempt from regulation.

On the other hand, a substantial number of commenters asked that all birds covered under the Act be subject to the regulations, regardless of species or use, particularly as some States do not have laws protecting birds. Many other commenters stated that there should be no exemptions for birds sold

[4] To view the comments we received, go to *www.regulations.gov*. Enter APHIS–2020–0068 in the Search field. Transcripts of the listening sessions are available at *https://www.aphis.usda.gov/aphis/ourfocus/animalwelfare/aw-news/bird-listening-sessions.*

[5] *Retail pet store* is defined as a place of business or residence at which the seller, buyer, and the animal available for sale are physically present so that every buyer may personally observe the animal prior to purchasing and/or taking custody of that animal after purchase, and where only the following animals are sold or offered for sale, at retail, for use as pets: Dogs, cats, rabbits, guinea pigs, hamsters, gerbils, rats, mice, gophers, chinchillas, domesticated ferrets, domesticated farm-type animals, birds, and coldblooded species.

in retail pet stores, noting that some pet stores house birds in poor sanitary conditions. One commenter added that no persons selling birds at auction should be exempt, stating that these are often the most egregious of offenders with respect to animal abuse.

Some commenters noted that many persons keep birds to preserve threatened or endangered species and safeguard them from extinction due to habitat loss and other threats, and recommended that any exemptions for wholesale trade and exhibition should also include birds bred for conservation or for sale or transfer to other breeding programs. On the other hand, a commenter stated that the majority of bird breeding in the United States ostensibly done in the name of conservation contributes little or nothing to conservation efforts because most captive breeding is done outside of official species survival plans and conservation efforts.

We also asked whether certain species of birds should qualify for exemption from licensing. In response, we received a wide range of explanations as to why certain species of birds covered under the AWA should or should not require a license.

Many bird owners and the organizations representing them commented that most non-agricultural bird species kept in the United States are for personal enjoyment and not for profit and should be exempted from AWA licensing.

Some commenters stated that the AWA should only be concerned about inspecting budgies, cockatiels, and other common species of birds bred for profit for the pet market. Several commenters stated that persons breeding or maintaining any types of finches, canaries, or songbirds should be exempt from licensing due to the enormous number of species, subspecies, and hybrids kept and their special requirements.

Commenters concerned about species conservation asked that we exempt from licensing breeders of endangered and non-native bird species, including rare poultry and waterfowl.

Several persons with an interest in raptors commented that existing U.S. Department of the Interior, U.S. Fish and Wildlife Service (USFWS) regulations likely meet or exceed proposed AWA standards and that no additional regulations are needed to ensure raptor welfare. Many noted that raptor owners are already subject to a robust regulatory system and that any new standards and regulations for most captive raptor breeders would be burdensome and duplicative. Some commenters stated that State and local laws already provide an adequate layer of regulation to ensure the welfare of their birds. Several commenters stated that raptors are migratory birds, not ''pet animals'' as defined in § 1.1, with some noting that the Migratory Bird Treaty Act (MBTA, 16 U.S.C. 703 *et seq.*) already covers raptors. A commenter noted that falconers fall under the definition of neither ''dealer'' nor ''exhibitor,'' and the few that engage in exhibition should be exempted *de minimis.*

On the other hand, a commenter representing an animal welfare organization noted that the USDA has never considered activities regulated under other Federal, State, and local laws as a basis for granting exemptions for regulated activities and species from the AWA's requirements. Other commenters opined that the AWA does not discriminate or authorize the agency to discriminate between different species of warmblooded animals, or between different regulated uses, and that all are protected under the Act. In addition, a commenter noted that raptors are large animals and asked that they not be subject to the exhibitor licensing exemption.

A commenter representing the USFWS noted that exhibition of migratory birds and raptors is the primary area of overlap between that agency and the USDA with respect to regulation. The commenter stated that it is important that agencies are not in conflict with respect to regulating birds.

Several commenters asked that persons maintaining racing and show pigeons be exempt from licensing. One commenter stated that most pigeon racers are not dealers or exhibitors and therefore should be exempt from regulation. The commenter added that pigeon racing has elements of the farm in its origins and that farm animals are excluded from AWA regulation.

Conversely, one commenter stated that racing pigeons are prone to disease due to inadequate sanitation and veterinary care, that prominent race organizers and veterinarians acknowledge that disease leads to substantial numbers of racing pigeon deaths, and that racing pigeons pose a threat of spreading disease among wild pigeons and domestic poultry.

We received several comments from persons and organizations on the subject of bird rescues and shelters. Several commenters emphasized that rescues should never be exempt from inspections or regulations. Many commenters expressed concern about animal welfare, overcrowding, and health and sanitation conditions at bird rescues and shelters, and supported regulation of such facilities under the AWA. A commenter suggested that rescues who accept public donations or charge admission to their facilities should be required to be licensed just as mammal facilities are. Another commenter indicated that rescues and sanctuaries for pet birds that receive government grant money should not be exempt and be held to a higher standard. On the other hand, other commenters asked that shelters and rescues be exempted from licensing and that caregivers who foster or shelter birds on a temporary basis should be exempted also.

Some commenters asked that persons maintaining wild bird species be exempted from licensing. One commenter stated that for many wild species, the appropriate conditions for maintaining them are unknown and would need to be determined once the birds are brought into captivity. The commenter added that the range of taxa is broad and that species within a taxon may have very different requirements. Other commenters stated that all wild bird rescues should be subject to regulation and licensing.

One commenter asked that we be careful in describing wild birds with the terms ''domestic/domesticated,'' ''non-domestic/exotic,'' and ''wild/wildlife.'' The commenter noted that domesticated species of certain birds have husbandry and veterinary needs that differ substantially from those of closely related, captive-managed wild species.

De Minimis Exemptions

Section 2133 of the Act includes the provision that ''a dealer or exhibitor shall not be required to obtain a license as a dealer or exhibitor under this chapter if the size of the business is determined by the Secretary to be *de minimis.*'' Section 2.1(a)(3) of the current regulations includes *de minimis* threshold licensing exemptions for dealers (including breeders) and exhibitors of AWA-covered animals based on gross income, numbers of animals maintained, and intended use of the animals, with exemptions granted accordingly for businesses under each threshold.

During the listening sessions, we asked persons to comment on whether there are thresholds beyond which an entity should not be required to be licensed. We noted that most bird breeding businesses are very small and invited persons to comment on what threshold criteria we might use to exempt such entities from licensing, which by their size have historically

posed an insignificant, or *de minimis,* risk to animal welfare.

Several commenters requested that we exempt certain dealers and exhibitors of birds from licensing, and many suggested specific exemption thresholds based on income or number of birds bred or exhibited. Many commenters asked that the exemption in § 2.1(a)(3)(i), the *retail pet store* exemption, remain in place for birds sold at retail.

One commenter stated that APHIS cannot exempt birds beyond the plain text of the AWA and its existing *de minimis* exemption, adding that the AWA statute plainly applies to warm-blooded animals that are used for regulated activities.

Some commenters stated that any individual or facility that raises fewer than 500 birds per year should be considered *de minimis* and exempt from regulation. Another commenter asked that the regulatory threshold be set at 500 or fewer breeding pairs of parakeets, finches, and other small birds, and 200 or fewer breeding pairs of larger birds such as parrots and gamebirds. The commenter asked that offspring not be counted toward the total number of pairs. Another commenter suggested that facilities with fewer than 100 breeding female birds should be exempt regardless of sales volume. Yet another recommended that small breeding operations (up to 25 pairs of birds) should be exempted from licensing under the AWA regulations and that not doing so will impose unnecessary regulatory burden on the public and APHIS personnel.

Other commenters recommended that proposed bird regulations follow the current *de minimis* thresholds for other animals in the regulations. One such commenter asked that we harmonize the bird regulations with—but not expand—the *de minimis* exemptions in § 2.1(a)(3)(iii).

A commenter recommended that birds under 4 pounds should not be regulated or require licensing. Another commenter stated that if someone cares for non-wild birds and some of those birds generate offspring unintentionally, such persons should be exempt from licensing.

One commenter stated that although an aviary may breed many birds, the total sales may only be $100 or less per year. In contrast, the commenter noted, a pair of hyacinth macaws may produce a single chick per year that sells for $10,000. The commenter noted that one pair of birds producing a single chick per year is below the level that USDA should spend resources on regulating even though the dollar amount is above what is considered *de minimis.* On this point, another commenter stated that birds with low monetary value are often subjected to the cruelest of conditions and in greatest need of oversight.

One commenter stated that to avoid the creation of a double standard for birds, any proposed regulations must exclude from the exemption in § 2.1(a)(3)(ii) all exotic or wild birds just as it currently does for all other covered wild or exotic animals. Another commenter stated that the exemption from licensing for facilities with annual sales not exceeding $500 is inadequate. Due to the capital expenditure and time investment required for successful hobby aviculture, the commenter recommended a threshold of $50,000.

With respect to bird exhibitors, a few commenters stated the need for an exemption like the current one in § 2.1(a)(3)(vii) for exhibitors of eight or fewer pet type or ''pocket'' mammal species.

One commenter who recommended against allowing species-specific exemptions for birds noted that the only current *de minimis* exemptions in the regulations that could reasonably apply to birds would be for ''domesticated farm-type animals,'' which could include domesticated species of chickens, ducks, and turkeys.

Performance-Based Standards

Section 2143 of the Act provides that standards for the humane care of animals must include requirements for handling, housing, feeding, watering, sanitation, ventilation, shelter from extremes of weather and temperatures, adequate veterinary care, and, when warranted, separation by species. The AWA regulations in 9 CFR part 3 fulfill this statutory obligation by listing standards for the humane handling, care, treatment, and transportation of animals, grouped under separate subparts for dogs and cats; guinea pigs and hamsters; rabbits; nonhuman primates; marine mammals; and warmblooded animals not included in the other subparts.

Most of the standards are performance-based, meaning that whenever practicable they do not mandate a single, prescribed approach to meeting the standard. For example, the standard for food storage and bedding for dogs and cats in § 3.1(e) states that ''supplies of food and bedding must be stored in a manner that protects the supplies from spoilage, contamination, and vermin infestation.'' Similarly, in the proposed standards for birds under § 3.150(e), we require that ''supplies of food, including food supplements, bedding, and substrate must be stored in a manner that protects the supplies from spoilage, contamination, and vermin infestation.'' In each case, the specific manner and location of storage is not prescribed, and any approach that protects the supplies from the conditions listed will meet the standard.

To cite another example, § 3.81 of the standards for nonhuman primates requires that the primary enclosures of the animals be provided with environmental enrichments for expressing noninjurious species-typical activities, which includes perches, swings, mirrors, and other increased cage complexities, and that species differences should be considered when determining the type or methods of enrichment. Likewise, we are proposing in § 3.154 an environmental enrichment standard for birds requiring that perches and other objects provided to enrich a bird's environment be species-appropriate and designed, constructed, and maintained so as to prevent harm to the bird. Businesses may use their own experience and knowledge with the species in question to determine the composition of the perches and other objects, their size and location, and other relevant considerations, so long as they are meeting the proposed standard.

Many of the comments we received during the listening sessions noted the great number of bird species and the highly diverse care and husbandry needs of each, and remarked on the challenge of establishing a single set of standards that could accommodate the scope of these needs. We acknowledge the concerns of these commenters and agree that birds constitute a uniquely diverse class, which is why we consider a performance-based, flexible approach to standards for birds especially important.

We asked commenters whether there are appropriate performance-based standards that could cover the wide variety of bird species. We also asked persons to comment on the feasibility of separating birds into smaller classes and setting performance-based standards appropriate for each class, and what such classes might look like.

A number of commenters supported regulating the humane handling, care, treatment, and transportation of covered birds under the existing standards in part 3, subpart F, which cover warmblooded animals other than dogs, cats, rabbits, hamsters, guinea pigs, nonhuman primates, and marine mammals. Other commenters supported the establishment of standards developed specifically for birds. Many commenters recommended that any performance standards developed for

birds should consider their specific physiological and behavioral needs.

An animal welfare organization proposed a set of avian performance standards to serve as a regulatory model and asked that they be included as a separate section in part 3 and reflected accordingly in parts 1 and 2. We note that the standards submitted by the commenter reflect in large part the standards we propose, with requirements that address handling, housing, feeding, watering, sanitation, ventilation, shelter, veterinary care, separation of species as warranted, and environmental enrichment.

A commenter asked APHIS to consult with ornithological professional organizations before drafting standards for birds, and others recommended that APHIS enlist the help of aviculturists and organizations representing raptor and parrot owners, rescues, conservation, and other avian interests to develop standards.

APHIS-Animal Care has engaged in such consultations to the extent we can, which is standard practice for the program with regard to other covered animals.

Conversely, several commenters questioned whether any set of standards could be developed that would address the husbandry needs of all bird species, with some noting that industry self-regulation has failed to prevent substandard care, welfare, and husbandry of birds. As we note in a previous section, some commenters submitted field reports, photographs, and videos showing birds held in unsanitary and barren cages throughout the United States and noted in particular the unhealthy appearance of the birds and abnormal behaviors resulting from confinement under such conditions.

One commenter stated that there are far too many species of exotic birds kept in aviculture to be able to set up individual standards, and another commented that generic standards that apply to large groups of birds probably do not encompass the needs of all species, even in family groups of birds. A commenter added that because the needs of many birds are influenced by age, geographical location, and seasonal changes, specifying exact standards of care may not allow enough flexibility to address these variable factors. One commenter acknowledged that due to the wide differences in size, morphology, diet, and social structure in the class Aves, it is impossible to present one set of minimum housing standards for all avian species.

Some commenters stated that the aviculturist community already has adequate best practices in place and that no government regulation is necessary. Several cited the Model Avicultural Program, adding that it represents a higher level of care than is typically required for AWA licensing.

While the program cited by these commenters includes general housing, husbandry, and other standards that we consider to be appropriately species-specific and performance-based, the standards we propose in this rule are both more detailed and comprehensive and include additional requirements governing transportation, enrichment, research uses, and identification, among others. We consider these requirements to be necessary to maintain consistency with the current regulations for mammals and to ensure a level of animal welfare commensurate with that required by the AWA.

Facilities and Operating Standards

While some commenters proposed standards that differ in degree from those we have proposed, we agree with the majority of comments from the listening sessions indicating that facility and operating standards for regulating birds must address their special physiological, anatomical, behavioral, and psychological needs, and the standards we have proposed have been developed with those needs in mind. We discuss those standards in greater detail below.

Enclosures

In accordance with the Act, we include enclosure standards in each subpart of part 3 to ensure that captive animals are confined safely and humanely. For example, the general standards for primary enclosures for dogs and cats under subpart A require that they be constructed and maintained so as to contain the animals securely, protect them against injury, and provide sufficient space commensurate with the animal species confined. The standards we propose for birds include similar requirements that are performance-based and allow flexibility to meet the wide diversity of needs among bird species cited by commenters.

Several commenters addressed the topic of bird enclosures, particularly with respect to size and the ability to permit movement. A few commenters submitted proposed standards that include detailed, performance-based shelter specifications for space, flooring and surfaces, lighting, humidity, and air quality. One such commenter noted that overcrowding causes stress in birds and spreads disease, and that small enclosures can cause stereotypic behaviors such as spot picking and route tracing. Some commenters also asked APHIS to develop standards requiring that enclosures be large enough to allow natural fliers to have enough space to fly, while other commenters stated that birds need room to stretch and flap wings, but not necessarily to fly.

We note that the standards we propose for enclosures mirror to a large degree those submitted by commenters, the objective being to provide an environment that ensures humane treatment of animals as required by the Act. The standard in proposed § 3.153(b) requires that the space in all primary enclosures housing birds be adequate and allow for normal postural and social adjustments, such as dust-bathing and foraging, with adequate freedom of movement and freedom to escape from aggression demonstrated by other animals in the enclosure according to the program of veterinary care developed, documented in writing, and signed by the attending veterinarian. While we acknowledge the desire by many commenters that sufficient enclosure space be available for birds to fly, birds can be in good health and maintained humanely in accordance with the Act without such a requirement.

A commenter stated that due to the way pigeons live in communities and can tolerate disease, standards for lofts must be specific to the species. One commenter stated that wire flooring is harmful to the feet of many birds and proposed that we set standards requiring safe, non-toxic substrate (newspaper, towels, litter, straw, etc.) for the species being housed. We include in this proposal a performance-based requirement that floors of primary enclosures be constructed in a manner that protects the birds' feet and legs from injury, which addresses issues of harmful flooring regardless of composition, as well as a requirement that substrate be safe and non-toxic to the birds being housed.

Sanitation

As noted above, the AWA requires that sanitation standards for regulated animals be issued for dealers, exhibitors, and research facilities that keep those animals. In the existing AWA regulations, consistent with this statutory obligation, we include standards for facility sanitation within each subpart for dogs and cats, rabbits, and other mammals. As with these standards, those that we propose for facilities having birds require a sanitary, pest-free environment conducive to their health and welfare but also allow for flexibility in how the standards are

met. Consistent with what we are proposing, several commenters called for standards specific to birds regarding waste disposal, food storage, and enclosure and pool cleaning to reduce disease and pest hazards.

Lighting and Climate

As lighting and climate needs differ considerably among animal species, the existing standards in the regulations for animals covered under each subpart are performance-based to allow for lighting, humidity, temperature, and other climatic considerations appropriate for the species involved. We have proposed similar such standards for birds to accommodate the widely different temperature, humidity, and lighting needs of each species.

Some commenters advocated for more prescriptive lighting standards, specifically natural or artificial light in the same spectrum as sunlight. One commenter recommended that appropriate circadian rhythms must also be provided for nocturnal species, as well as adequate ventilation, temperature, and humidity control appropriate to the species. We agree with the latter commenter that lighting should be species-specific and need not mimic sunlight if the species is nocturnal, and our proposed standards reflect that. Another commenter stated that there should be standards to protect birds from sunlight and extreme heat, with appropriate shelter from rain and snow. We agree with this commenter, as providing shelter from weather extremes is consistent with animal welfare.

Recordkeeping

The existing regulations require that dealers and exhibitors keep and maintain records which fully disclose certain identification and disposition information for animals other than dogs and cats that are purchased or otherwise acquired, owned, held, leased, or otherwise in their possession or under their control, or that they transport, sell, euthanize, or otherwise dispose of. Among other things, the records must include any offspring born of any animal while in the dealer's or exhibitor's possession or under his or her control. Similarly, operators of auction sales and brokers are required to maintain records for any animal consigned for auction or sold, whether or not a fee or commission is charged.

During the listening sessions, many commenters asked APHIS to require that records be kept of all transactions for birds that are sold or transferred to another owner. Commenters also called for APHIS to require bird dealers and exhibitors to keep health records on their birds.

On the other hand, several commenters stated that the recordkeeping requirements now required for mammals would be unreasonable and burdensome for commercial, high volume-produced birds such as budgies, zebra finches, cockatiels, lovebirds, waterfowl, pigeons, and gamebirds.

We propose to apply the existing recordkeeping requirements to persons engaging in these AWA-covered activities involving birds, unless otherwise exempt. We consider an accounting of each covered animal important for the purposes of ensuring adequate health and welfare, even for high-volume produced birds. If, for example, an individual bird moved to or from a premises is diagnosed with a serious, communicable disease, a record of that bird's movement is necessary to protect other birds from potential exposure and harm.

Research Concerns

Regulations concerning AWA-covered animals at research facilities are located in 9 CFR part 2, subpart C. They require that facilities register with APHIS, that an Institutional Animal Care and Use Committee (IACUC) be established to assess facility treatment and use of animals, and that animals be treated by an attending veterinarian under a program of veterinary care. Personnel and recordkeeping requirements for research facilities are also included in subpart C. As these regulations ensure that activities on animals at research facilities are humanely designed and practiced in accordance with the Act, we propose that they also be applied to birds not bred for use in research.

Some commenters expressed concerns with the effects that establishing AWA standards for birds could have on research activities.

A commenter stated that the proposed regulation would hamper biomedical and ecological research using avian species. One commenter stated that additional regulation could be detrimental to ornithological research without improving protection for birds, noting that unlike biomedical research and testing that does not benefit the animals being used, such research is conducted for understanding bird biology and ecology and is already regulated through the Public Health Service.

A commenter asked USDA to clarify that neither a facility's IACUC nor APHIS inspection is required for field research sites involving wild birds. Another commenter asked that any proposed standards for birds do not prohibit field surgeries on wild birds and that biologists not be required to transport wild birds to dedicated facilities. APHIS' proposed changes to the regulations do not require that field studies involving wild birds be inspected, nor do we propose to prohibit field surgeries on wild birds, provided that such activities are conducted in accordance with current established veterinary medical procedures. As provided in proposed § 2.31(d)(1)(ix), we would not require that persons transport wild birds to dedicated facilities for medical procedures.

Animal Health and Husbandry

During the listening sessions, commenters frequently cited the need for health and husbandry standards that are performance-based, noting the wide range of requirements among different species of birds. The current standards for other animals in Part 3 include performance-based requirements for health and husbandry addressing grouping, feeding, sanitation, and other needs. We have likewise proposed similar health and husbandry standards for birds in this document that address the needs cited by commenters.

Feeding and Watering

As noted above, the AWA requires that feeding and watering standards be established for regulated animals for dealers, exhibitors, and research facilities that contain those animals. In the existing regulations, we have implemented this statutory obligation by establishing feeding and watering standards. Generally, these require that food be uncontaminated, nutritious, easily accessible, and appropriate for the species involved. Current standards also require that clean water be provided sufficient to maintain health and that receptacles for food and water be kept clean and sanitary. Competent bird dealers and exhibitors are knowledgeable as to the types of food their birds require to remain in good health. As with persons maintaining other types of animals covered under the regulations, we acknowledge this fact, and as we have done with those animals, we have proposed a feeding standard that is flexible enough to ensure the health and well-being of all birds.

Several animal welfare organizations proposed performance standards for the feeding and watering of birds consistent with the standards we propose. We would require that food be nutritious, species-appropriate, and presented in a manner that encourages natural foraging

behaviors specific to the species, which as one commenter noted is exceptionally important to bird welfare.

Environmental Complexity

Many commenters during the listening sessions noted that some species of birds are highly intelligent and social animals and can benefit from being able to practice natural behaviors in captivity, such as social interaction and foraging. Accordingly, they proposed standards to provide species-appropriate environmental complexity for birds in the living space to promote the expression of natural behaviors and opportunities for positive interactions with the environment. A commenter noted that species-specific perches, substrates, hide boxes and shelters, visual barriers, and water and dust baths are important to promoting such interactions and included details of these in the standards proposed.

One commenter stated that parrots should receive special consideration for enrichment under the AWA regulations because of their taxonomic uniqueness, documented intelligence, and popularity in domestic markets. Some commenters cited research showing that enrichment activities such as foraging enhance the psychological well-being of birds, reducing stereotypic behaviors and minimizing stress. One commenter proposed that an environmental enrichment plan be developed and maintained for all birds in consultation with a qualified veterinarian or veterinary behaviorist, and that behavioral assessments include a review of nutrition, husbandry, and housing to develop an appropriate treatment plan.

APHIS agrees that environmental enrichment is important to ensuring the health and well-being of birds consistent with the Act. We note that the current regulations in subpart D, § 3.81, require persons maintaining nonhuman primates to provide an environmental enhancement plan that includes enrichment requirements. Accordingly, we would include similar enrichment requirements specifically for birds.

Contact With Birds

The existing AWA regulations contain provisions regarding contact between captive animals being sold or exhibited and members of the public. These are intended to protect persons from injury while minimizing the risk of animals contracting a zoonotic disease, receiving inappropriate food, or being handled in an inappropriate manner. For example, a standard in each subchapter requires that primary enclosures used to transport animals be constructed to ensure that anyone handling the enclosure will not be in contact with the animals contained inside. In this document we propose a similar standard for birds.

Some commenters asked that APHIS create standards that restrict or prohibit public contact and interaction with exhibited birds. One commenter stated that exhibitors allow dangerous birds to be too close to the public. Others opined that direct contact programs pose a dramatically increased risk of zoonotic disease transmission between humans and animals. A commenter cited research indicating that hand-rearing of parrots and other birds can contribute to the development of aberrant behaviors such as stereotypy and feather plucking.

On the other hand, a commenter stated that many birds desire and will initiate interaction with their owners. Another commenter was concerned that breeders would be restricted from hand-rearing and handling young birds, noting that such activities are a necessary part of taming. We are not proposing regulations that would restrict breeders from handling their birds humanely.

Veterinary Care

Veterinary requirements applicable to all animals covered under the Act are located in § 2.40 of the regulations. These require that each facility maintain a program of veterinary care and have an attending veterinarian, as we acknowledge from commenter input to be the current practice for many facilities that would be affected by the proposed standards. Under the regulations we propose, birds covered under the Act would be subject to veterinary requirements to ensure animal welfare.

Several commenters stated that veterinary care should be a requirement for all birds that are subject to AWA regulations. Several such commenters proposed that regulated facilities be required to maintain a program of preventative veterinary healthcare for regulated birds, with annual physical exams for each bird and health records maintained for each regulated bird and available for review by APHIS. Many commenters called for health certificates for birds as is the case for covered animals currently.

A majority of commenters asked that we establish regulations to prohibit painful physical mutilations, including pinioning (disabling wings), toe clipping, devoicing, and beak alterations. A commenter recommended that when beak trimming is done for corrective purposes, it should be performed by a qualified avian veterinarian, and clipping or pinioning a bird's wings to prevent flight should be prohibited except to address a specific health issue. We acknowledge commenter concerns over these practices, but also acknowledge, as several commenters did themselves, that there can sometimes be health-based reasons for the practices. We encourage additional comments that address the concerns raised in light of animal welfare.

Also, a commenter proposed that facilities be required to consult with a veterinarian or nutritionist to formulate appropriate species-specific diets, and that facilities follow and keep records of a dietary plan that is reviewed annually by a qualified veterinarian or nutritionist who has directly evaluated the animals at the facility. We agree that the food provided to the birds should be species-specific and nutritious. This could be accomplished by consulting a veterinarian or nutritionist, but we do not consider recourse to a veterinarian or nutritionist to be the only way of obtaining or validating this information. Our proposed standards allow for such flexibility in determining the appropriate diet for the birds.

Identification

We received a number of comments on the identification standards for birds. Several commenters supported a standard requiring that all birds have a humane form of permanent identification, such as a microchip, leg band, or wing band.

Some commenters requested that we not require permanent forms of identification on birds because they should not be subjected to unnecessary stressful surgical procedures. Another commenter stated that given the fragile nature of birds, ID marking should not be required for live birds. The commenter recommended either leg bands or microchips as being suitable for all bird species.

In these proposed regulations, we include identification standards for birds that allow for flexibility in meeting the requirements, including attaching information to primary enclosures identifying each bird housed within, using leg and wing bands for identifying birds, and employing microchips. We believe that these methods are the safest and most acceptable means of identifying birds humanely.

Nesting and Breeding Activities

We asked commenters to provide information on how bird breeders avoid interfering with nesting and breeding or other biological activities of birds. We

also asked for comments to help APHIS ensure that housing, feeding, or inspection requirements do not interfere with these activities.

Several bird breeders commenting on the notice raised concerns about regulatory inspections disturbing nesting and breeding activity at their facilities, potentially resulting in losses due to damage to eggs, chicks, and mates. Some stated that licensees should have a say in when inspections occur and asked that inspections not be conducted during breeding cycles.

Many commenters raised biosecurity concerns about inspections and inspectors transmitting pathogens into the facility. Another commenter noted that operators frequently care for their birds in the early morning hours or evening hours before or after work, so these facilities would be inaccessible for the unannounced inspections called for in the AWA regulations.

Conversely, some commenters emphasized the importance of inspections for animal welfare, stating that procedures by trained APHIS inspectors are no more intrusive than normal human-interactive behaviors in many situations where birds are homed. Another commenter stated that rather than disease posing a barrier to regulation, the risk of which is overstated, it is another factor to consider when developing safe inspection practices. Another commenter stated that based on her experience, parrots are motivated to nest and breed regardless of the presence of humans. Other commenters stated that nesting and breeding concerns should not hamper the ability of officials to conduct inspections and noted that remote camera technology can allow inspectors to view birds without entering the nesting area.

We acknowledge the concerns of many commenters about the impact that inspections could have on the health and safety of their birds, particularly during periods of breeding and nesting. We note that APHIS inspectors would work with newly regulated persons to identify optimal times for inspections so that disruptions are minimized while maintaining the unannounced nature of inspections. As with inspections of other types of animals, APHIS inspectors are required to observe professionally accepted standards for minimizing the risk of introducing disease into facilities.

Transportation

The transportation standards we propose for birds provide the same consideration for humane care as is required in the current regulations for other species of AWA-covered animals, and we acknowledge the point made by many commenters that some birds have highly specialized transportation needs. For example, while most birds require space to make normal postural adjustments during transport, there are some birds that may injure themselves if their movements are not restricted. Therefore, the intention of the proposed transportation standards for birds is to account for these animals' unique needs and provide them with equivalent protection and care as other covered animals.

One commenter stated that despite many concerns about the welfare of baby and unweaned birds, birds should not be subject to minimum age requirements for shipping. The commenter noted that precocial species, such as gallinaceous birds, have been shipped as ''day-old'' hatchlings for many years as an accepted practice in the poultry industry. Another commenter recommended that any person handling a primary enclosure containing a bird be required to use care and avoid causing physical harm or distress to the bird, while some commenters stated that all temporary transportation and housing of birds in trade or enroute to shows should be exempted as these constitute a temporary condition and not a permanent living space.

Conversely, numerous commenters requested that we establish regulations prohibiting the sale of unweaned and prematurely weaned baby birds, noting that such birds risk succumbing to disease, mishandling, and transport hazards.

We acknowledge that there could be legitimate reasons to transport an unweaned bird, but also agree with the concerns cited above. We note that under the standards we propose, carriers and intermediate handlers would not be permitted to accept unweaned birds for transport unless transport instructions are specified as a part of the program of veterinary care.

A commenter representing the USFWS recommended not requiring AWA licensing for transporters who are transporting birds under a valid MBTA permit to and from the wild for compensation at or less than recouping costs. The commenter noted that there are situations in which volunteers transport wild migratory birds for minimal compensation for the health and safety of these birds. The proposed regulations include an exemption from AWA licensing for anyone transporting a migratory bird covered under the MBTA from the wild to a facility for rehabilitation and eventual release in the wild, or between rehabilitation facilities. Any person transporting a migratory bird is currently required to obtain authorization to do so from USFWS.

Proposed Regulations and Standards

The proposed regulations and standards in this document are intended to ensure the humane handling, care, treatment, and transportation of birds not bred for use in research that are used, or intended for use, for research, teaching, testing, experimentation, or exhibition purposes, or as a pet. Consistent with most of the comments we received during the listening sessions, these proposed animal welfare standards accommodate the species-specific needs of birds and consider their significant differences with respect to their biological and behavioral requirements. In every case, the goal of the proposed standards for birds is to provide each individual bird with acceptable conditions consistent with ensuring its good health and well-being and meeting its physical and behavioral needs as required under the Act.

Definitions

In § 1.1, we would revise the definitions of several terms used throughout parts 2 and 3. Specifically, we would revise the definitions of *carrier, exhibitor, farm animal, intermediate handler, pet animal, retail pet store,* and *weaned.* We would also add new definitions of *bird, bred for use in research,* and *poultry* to § 1.1. The proposed revisions are discussed below. In addition to these proposed revisions, regulated parties with birds would be subject to all other applicable definitions contained in § 1.1 if this proposed rule is adopted as a final rule.

Bird

We would define the term *bird* as any members of the class Aves, excluding eggs. We consider a bird to no longer be an egg when the bird is fully separated from the eggshell.

We considered regulating the welfare of live avian eggs during the development of this proposed rule. However, we found that there was not enough scientific data available for each species of bird to determine the stages when human management can cause an animal welfare concern.

Bred for Use in Research

We propose to add a definition for the term *bred for use in research* to clarify what animals are considered bred for use in research under the AWA regulations. This term would cover animals that are bred in captivity and

that are being used or are intended for use for research, teaching, testing, or experimentation purposes.

The definition of *animal* in the AWA and the regulations excludes birds, rats of the genus *Rattus,* and mice of the genus *Mus,* bred for use in research.[6] Therefore, under this proposal, the following birds not bred for use in research would be covered by the regulations:

- Birds that are obtained from their natural habitat and used or intended for use for research, teaching, testing, or experimentation purposes; and
- Birds that are being used or intended for use for exhibition purposes or for use as pets.

Carrier

We would revise the definition of *carrier* to include an exemption from AWA licensing for anyone transporting a migratory bird covered under the MBTA from the wild to a facility for rehabilitation and eventual release in the wild, or between rehabilitation facilities, and who has authorization from USFWS for that purpose. As transport of such migratory birds is regulated by the USFWS, any person transporting a migratory bird is currently required to obtain authorization to do so from that agency. We are proposing this exception because APHIS and USFWS agree that the continued transport of MBTA-covered birds for rehabilitation without additional regulation is beneficial for species preservation and outweighs any potential risk to animal welfare. If USFWS receives animal welfare-related complaints about transport of such birds, USDA will work with that agency to address them.

Exhibitor

We would also revise the definition of *exhibitor.* Currently, an *exhibitor* is defined as ''any person (public or private) exhibiting any animals, which were purchased in commerce or the intended distribution of which affects commerce, or will affect commerce, to the public for compensation, as determined by the Secretary. This term includes carnivals, circuses, animal acts, zoos, and educational exhibits, exhibiting such animals whether operated for profit or not. This term excludes retail pet stores, horse and dog races, an owner of a common, domesticated household pet who derives less than a substantial portion of income from a nonprimary source (as determined by the Secretary) for exhibiting an animal that exclusively resides at the residence of the pet owner, organizations sponsoring and all persons participating in State and country fairs, livestock shows, rodeos, field trials, coursing events, purebred dog and cat shows, and any other fairs or exhibitions intended to advance agricultural arts and sciences, as may be determined by the Secretary.''

Like horse and dog races and purebred dog and cat shows, we consider pigeon races and bird fancier shows to be exhibitions traditionally intended to advance agricultural arts and sciences. Therefore, we would amend the definition of *exhibitor* by adding pigeon races and bird fancier shows to the list of exhibitions that are excluded from coverage. In addition, for clarity, we would add free-flighted bird shows as an example of a type of animal act that is included under the definition of *exhibitor.*

Farm Animal; Poultry

Currently, § 1.1 defines a *farm animal* as ''any domestic species of cattle, sheep, swine, goats, llamas, or horses, which are normally and have historically, been kept and raised on farms in the United States, and used or intended for use as food or fiber, or for improving animal nutrition, breeding, management, or production efficiency, or for improving the quality of food or fiber. This term also includes animals such as rabbits, mink, and chinchilla, when they are used solely for purposes of meat or fur, and animals such as horses and llamas when used solely as work and pack animals.'' *Poultry* is not currently defined in the AWA regulations.

We are proposing to make several changes to the definition of *farm animal* to ensure appropriate coverage for birds. Like cattle, sheep, and other farm animals, there are domestic species of poultry that have historically been kept and raised on farms in the United States and used for food or fiber or for improving animal nutrition, breeding, management, or production efficiency, or for improving the quality of food or fiber. Therefore, we are proposing to amend this term to include such poultry. This proposed amendment would also make the definition of *farm animal* consistent with the definition of *animal,* which lists poultry as a kind of farm animal that is exempt from coverage when used or intended for use as food or fiber, for improving animal nutrition, breeding, management, or production efficiency, or for improving the quality of food or fiber.

We are also proposing to revise *farm animal* to include animals when used solely for their feathers or skins. The proposed addition of feathers to the list accounts for morphological differences between birds and other animals and is the avian equivalent to the current inclusion of animals when used solely for the purposes of fur. The proposed addition of skins to the list reflects the common practice of using ostrich and other skins of birds for leathers. Further, we would add ratites (*e.g.,* ostrich, rhea, or emu) to the illustrative list of animals that are included in this term when used solely for purposes of meat, fur, feathers, or skins.

In addition to these changes to the definition of *farm animal,* we would also add a separate definition of *poultry* to the AWA regulations to clarify what birds are considered poultry. This term would be defined as any species of chickens, turkeys, swans, partridges, guinea fowl, and pea fowl; ducks, geese, pigeons, and doves; grouse, pheasants, and quail.

Intermediate Handler

We would amend the definition of *intermediate handler* to include an exemption from AWA licensing for anyone transporting a migratory bird from the wild to a facility for rehabilitation and eventual release in the wild, or between rehabilitation facilities, with USFWS authorization. Any person transporting a migratory bird covered under the MBTA is currently required to obtain authorization from USFWS.

Pet Animal

Under the current regulations, *pet animal* is defined as ''any animal that has commonly been kept as a pet in family households in the United States, such as dogs, cats, guinea pigs, rabbits, and hamsters. This term excludes exotic animals and wild animals.'' We are proposing to include birds under the definition of *pet animal* and amend the illustrative list of animals contained in the definition by adding examples of pet birds. Such birds would include but not be limited to parrots, canaries, cockatiels, lovebirds, and budgerigar parakeets. Although there are too many bird species that exist in the United States and are kept as pets to list under the definition, we propose to list these particular birds because they constitute the majority of birds bought and sold as pets in the United States and are thus a good illustrative example of what constitutes a pet bird.

[6] Birds are otherwise covered under the definition of *animal* in the Act and the current regulations by the term ''warm-blooded animal.''

Retail Pet Store

Currently, a *retail pet store* is defined as ''a place of business or residence at which the seller, buyer, and the animal available for sale are physically present so that every buyer may personally observe the animal prior to purchasing and/or taking custody of that animal after purchase, and where only the following animals are sold or offered for sale, at retail, for use as pets: Dogs, cats, rabbits, guinea pigs, hamsters, gerbils, rats, mice, gophers, chinchillas, domesticated ferrets, domesticated farm-type animals, birds, and coldblooded species.'' The current definition goes on to exclude establishments or persons conducting certain activities, meaning that these establishments or persons do not meet the *retail pet store* definition. These exclusions are as follows:

- Establishments or persons who deal in dogs used for hunting, security, or breeding purposes;
- Establishments or persons exhibiting, selling, or offering to exhibit or sell any wild or exotic or other nonpet species of warmblooded animals (except birds), such as skunks, raccoons, nonhuman primates, squirrels, ocelots, foxes, coyotes, etc.;
- Any establishment or person selling warmblooded animals (except birds, and laboratory rats and mice) for research or exhibition purposes;
- Any establishment wholesaling any animals (except birds, rats, and mice); and
- Any establishment exhibiting pet animals in a room that is separate from or adjacent to the retail pet store, or in an outside area, or anywhere off the retail pet store premises.

We are proposing to revise the definition of *retail pet store* by removing the parenthetical exceptions for birds from the lists of exclusions above. Those exclusions exist as a result of the historical exclusion of all birds from the definition of *animal* in § 1.1 of the regulations and are inconsistent with the current definition of *animal.*

Weaned

Currently, § 1.1 defines *weaned* to mean that ''an animal has become accustomed to take solid food and has so done, without nursing, for a period of at least 5 days.'' We are proposing to amend this definition to make it applicable to birds. Specifically, we propose to add that a bird is weaned if it has become accustomed to take food and has so done, without supplemental feeding from a parent or human caretaker, for at least 5 consecutive days. Signs that a bird or other animal has become accustomed to take food include the animal's ability to maintain a constant body weight during weaning.

Regulations in 9 CFR Part 2 Pertaining to Newly Regulated Persons Under This Proposal

In addition to the amendments we propose, newly regulated persons under this proposal would be subject to all other applicable AWA regulations in effect for licensing, registration, research, and inspections under 9 CFR part 2. These regulations, addressed below, are intended as an overview of how newly regulated persons maintaining birds as dealers or exhibitors may be affected.

Under Subpart A—Licensing, persons who plan to maintain and use animals covered under the AWA regulations and who are not otherwise exempt from licensing are required to apply to APHIS for a license, which is valid for 3 years, in accordance with § 2.1, and agree to a prelicensing inspection demonstrating that his or her location(s) and any animals, facilities, vehicles, equipment, or other locations used or intended for use in the business comply with the Act and the regulations and standards.

We are uncertain regarding the number of dealers and exhibitors who will now be subject to this licensing requirement, but believe, however, that under the regulations in part 2, many small bird dealers and exhibitors would be exempted from licensing. The retail pet store exemption exempts persons or businesses defined in § 1.1 as a *retail pet store,* which means a place of business or residence at which the seller, buyer, and the animal available for sale are physically present so that every buyer may personally observe the animal prior to purchasing and/or taking custody of that animal after purchase. Under the *de minimis* exemptions in § 2.1(a)(3), the income threshold exemption in that paragraph applies to ''any person who sells or negotiates the sale or purchase of any animal except wild or exotic animals, dogs, or cats, and who derives no more than $500 gross income from the sale of such animals during any calendar year and is not otherwise required to obtain a license.'' A licensing exemption is also provided for dealers who maintain four or fewer breeding females of pet animals, small exotic or wild animals, and/or domesticated farm type animals, and offer only their offspring for sale. Also, in § 2.1(a)(3), individuals who buy, sell, transport, or negotiate the sale, purchase, or transportation of an animal solely for food or fiber are exempt from licensing, as are exhibitors covered under the AWA who maintain eight or fewer pet animals, small exotic or wild animals, and/or domesticated farm type animals for exhibition.

Under Subpart B—Registration, carriers and intermediate handlers newly regulated under this proposal would not require a license to transport birds, but would be required to register by completing and filing a form provided by APHIS. Registrations, unlike licenses, do not have an expiration date.

Under Subpart C—Research facilities, a newly regulated research facility under this proposal would need to register by completing and filing a form available from APHIS. The chief executive officer of the newly registered research facility would be required to appoint an IACUC consisting of qualified persons to assess the research facility's animal program, facilities, and procedures. Each research facility would also need to have an attending veterinarian and maintain a program of veterinary care. Lastly, registered research facilities would be required to maintain records of IACUC meetings, activities involving animals, and animals purchased or acquired by the facility.

In addition, newly licensed dealers and exhibitors under part 2, subpart D, § 2.40, also would be required to have an attending veterinarian and a program of veterinary care. Subpart E requires that dealers and exhibitors of all animals, except dogs and cats, delivered for transportation, transported, purchased, sold, or otherwise acquired or disposed of by any dealer or exhibitor would have to be identified by the dealer or exhibitor at the time of delivery for transportation, purchase, sale, acquisition or disposal, as provided in the subpart. Primary enclosures would require a means for identifying each of the animals within.

Subpart F prohibits any person from buying, selling, exhibiting, using for research, transporting, or offering for transportation, any stolen animal.

Subpart G would require dealers and exhibitors newly regulated under this proposal to make, keep, and maintain records or forms which fully and correctly disclose certain information as indicated in the subpart, concerning animals purchased or otherwise acquired, owned, held, leased, or otherwise in their possession or under their control, or which are transported, sold, euthanized, or otherwise disposed of by that dealer or exhibitor. Operators of an auction sale or broker would need to make, keep, and maintain records or forms which disclose the information indicated in the subpart concerning each bird consigned for auction or sold, whether or not a fee or commission is

charged. Carriers and intermediate handlers newly registered under this proposal would need to keep records concerning C.O.D. shipments of live birds.

Subpart I includes miscellaneous requirements for dealers, exhibitors, operators of auction sales, intermediate handlers, and carriers. Newly regulated persons under this proposal would agree to provide any information concerning the business which APHIS may request in connection with the enforcement of the provisions of the Act, the regulations, and the standards. Also, each dealer, exhibitor, intermediate handler, and carrier would be required to provide APHIS officials with access to and inspection of property and records during business hours. Any regulated person who intends to exhibit an animal at any location other than the person's approved site (including, but not limited to, circuses, traveling educational exhibits, animal acts, and petting zoos), except for travel that does not extend overnight, is required to submit a written itinerary to APHIS. The regulations in subpart I also include provisions for missing animals, situations in which captive animals are determined to be suffering, and demonstration of adequate experience and knowledge of the species maintained.

Lastly, under current part 2, subpart I, newly regulated dealers, exhibitors, intermediate handlers, and carriers under this proposal would be required to develop, document, and follow an appropriate plan to provide for the humane handling, treatment, transportation, housing, and care of their animals in the event of an emergency or disaster (one which could reasonably be anticipated and expected to be detrimental to the good health and well-being of the animals in their possession).

Proposed Changes to 9 CFR Part 2

The proposed amendments to the regulations are discussed below by section. In addition to these proposed amendments, newly regulated persons under this proposal would be subject to all other applicable AWA regulations for licensing, registration, research and inspections as summarized above.

Requirements and Application—§ 2.1

As noted previously, § 2.1 of the regulations includes requirements for licensing, as well as exemptions from licensing. One such exception in § 2.1(a)(3)(vi) exempts ''any person who buys, sells, transports, or negotiates the sale, purchase, or transportation of any animals used only for the purposes of food or fiber (including fur).'' To accommodate birds under this exemption, we would add ''feathers'' to the list of purposes for which birds are used.

Paragraph (b)(1) states that licenses are issued to specific persons, and are issued for specific activities, types and numbers of animals, and approved sites. As each license specifies the numbers and types of animals that a licensee can maintain, under paragraph (b)(2)(ii) a licensee is required to obtain a new license before acquiring or using any covered animal beyond those types or numbers of animals specifically authorized under the existing license.

We are aware that a number of currently licensed facilities, in addition to maintaining mammals of various types, are also maintaining birds that might be covered under the proposed changes to the regulations. These birds are not currently listed on the license. However, in order to minimize redundant administrative burden on these facilities, we would not require that they apply for a new license only for the purpose of meeting the effective date of these proposed regulations, if promulgated. Therefore, we propose to add a statement to § 2.1(b)(2)(ii) explaining that a current licensee with birds is not required to apply for a new license until the recommended 90 days prior to the scheduled expiration date of that license (APHIS encourages such persons to apply for a new license at least 90 days before expiration of the current one). Licenses are valid for 3 years. We would also add to paragraph (b)(2)(ii) a reference to proposed subpart G in part 3, which lists standards for birds, and an effective date.

APHIS intends to provide guidance to both new and current licensees through documents, guides, and training to help them achieve compliance with the new regulations for birds. We invite potential licensees and other interested persons to comment on the types of training and guidance they need and the modes by which it might be best provided.

Birds Covered Under the Migratory Bird Treaty Act

The MBTA implements a series of treaties between the United States and Canada, Mexico, Japan, and Russia intended to protect and sustain populations of migratory birds. Under regulations developed and enforced by USFWS, the MBTA prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization.[7] With some exceptions,[8] any activity involving the use, possession, or transport of a migratory bird, or the parts, nests, or eggs of such birds, requires a USFWS permit specific to the activity. Types of migratory bird permits and their provisions, listed in 50 CFR part 21, subpart C, include but are not limited to those intended for import or export, scientific collecting, falconry, raptor propagation, and rehabilitation.[9]

As noted above, the 2002 amendments to the AWA by Congress subjected birds to regulation under the AWA, which does not distinguish migratory birds from other birds and therefore does not exclude them from regulation under its authority. Although migratory birds are currently covered under the MBTA and its regulations, the primary purpose of the MBTA is to sustain native populations of such birds rather than to establish specific standards of care and humane treatment for birds in captivity. For this reason, we acknowledge that a small number of persons maintaining captive migratory birds for some activities under USFWS regulation would also fall under AWA coverage and potentially be subject to APHIS regulation. In particular, some persons currently authorized under permit by USFWS to exhibit or breed migratory birds may be required to follow AWA regulations and obtain a license from APHIS to ensure that such birds are receiving humane care and treatment.

As noted above, we propose to revise the definitions of *carrier* and *intermediate handler* in § 1.1 to include an exemption from AWA registration for anyone transporting a migratory bird covered under the MBTA from the wild to a facility for rehabilitation and eventual release in the wild, or between rehabilitation facilities.

APHIS continues to work closely with USFWS to determine situations where regulatory overlap may occur, and both agencies are coordinating efforts in order to minimize dual regulation of persons possessing and using migratory birds for breeding, exhibition, education, and research. To help us reduce regulatory burden on such persons, we invite comments that address specific activities and concerns

[7] A list of migratory birds protected under the MBTA can be found at *https://ecfr.federalregister.gov/current/title-50/chapter-I/subchapter-B/part-10/subpart-B/section-10.13*.

[8] See 50 CFR 21.12, ''General exceptions to permit requirements.'' Exceptions address handling and transport of migratory birds by certain persons and institutions for the purpose of ensuring their health and safety.

[9] Regulations and permits specific to bald and golden eagles are located in 50 CFR part 22.

involving migratory birds potentially covered under both APHIS and USFWS regulations.

Registration Requirements and Procedures—§ 2.25

Section 2.25 provides in part that each carrier and intermediate handler is required to register with the Secretary by completing a form furnished, upon request, by the Deputy Administrator. This requirement typically applies to persons who transport AWA-covered animals. Persons already registered to transport other animals would not be required to update their registration to transport birds.

We note that some persons transport wild migratory birds between rehabilitation facilities and the wild as part of conservation projects. As the transport of migratory birds covered under the MBTA requires authorization by USFWS under regulations in 50 CFR parts 21 and 22, we would not require that such transporters register with APHIS. Accordingly, we would revise the definitions of *carrier* and *intermediate handler* to exempt such persons from AWA licensing.

Institutional Animal Care and Use Committee (IACUC)—§ 2.31(d)

Under § 2.31 of the regulations, each registered research facility must establish an IACUC to assess its animal program, facilities, and procedures. The IACUC must have at least three members, one of whom must be a Doctor of Veterinary Medicine, with training or experience in laboratory animal science and medicine, who has direct or delegated program responsibility for activities involving animals at the research facility. Another member must not be affiliated with the facility at all, and is intended to provide representation for general community interests. In order to approve proposed activities or proposed significant changes in ongoing activities, paragraph (d) of § 2.31 requires that the IACUC conduct a review of those components of the activities related to the care and use of animals and determine that the proposed activities are in accordance with the regulations, unless acceptable justification for a departure is presented in writing.[10] The IACUC is also required to determine that the proposed activities or significant changes in ongoing activities meet a number of requirements, including ones related to activities that involve surgery. We are proposing no additional requirements for IACUC membership, but research facilities that use birds not bred for use in research could choose to enlist additional IACUC members with avian expertise.

Under current § 2.31(d)(1)(ix), activities that involve surgery must include appropriate provision for pre-operative and post-operative care of the animals in accordance with established veterinary medical and nursing practices, which means that survival surgery must be performed using aseptic procedures, including surgical gloves, masks, and sterile instruments. Major operative procedures on non-rodents must be conducted only in facilities intended for that purpose and must be operated and maintained under aseptic conditions. Non-major operative procedures and all surgery on rodents do not require a dedicated facility but also must be performed using aseptic procedures. Operative procedures conducted at field sites need not be performed in dedicated facilities but must be performed using aseptic procedures.

We would apply the same requirements for operative procedures for birds as we do for rodents in § 2.31(d)(ix). Our determination for this decision is twofold. First, we are aligning our requirements with U.S. Public Health Service policy for the humane care and use of laboratory animals, which does not require a separate, dedicated surgical area for rodents, but does require a surgical area used solely for survival surgeries involving higher vertebrate species.[11] Second, we have considered the operative conditions and practices for rodents and concluded that they would be humane and consistent with the AWA if applied to birds. As we noted above, the surgical standards currently listed in § 2.31(d)(1)(ix) include appropriate provisions for aseptic surgery and pre-operative and post-operative care of the animals in accordance with established veterinary medical and nursing practices, which apply regardless of whether or not the surgery is performed in a dedicated facility used wholly for that purpose. Moreover, under current § 2.31(d)(1)(ix), medical care for all AWA-covered animals at a registered research facility is required to be available and provided as necessary by a qualified veterinarian.

Time and Method of Identification—§ 2.50

We are proposing to amend § 2.50 of the regulations, which addresses methods of identifying animals. Currently, paragraph (e)(1) requires dealers and exhibitors to identify all animals, except for dogs and cats, delivered for transportation, transported, purchased, sold, or otherwise acquired or disposed of, at the time of delivery for transportation, purchase, sale, acquisition, or disposal. Paragraph (e)(2) requires such animals, when confined to a primary enclosure, to be identified using one of three methods: (1) A label attached to the primary enclosure that bears a description of the animals in the primary enclosure; (2) marking the primary enclosure with a painted or stenciled number which shall be recorded in the records of the dealer or exhibitor together with a description of the animals; or (3) a tag or tattoo applied to each animal in the primary enclosure that individually identifies each animal by description or number. When such an animal is not confined to a primary enclosure, paragraph (e)(3) provides that the animal must be identified on a record that must be kept and maintained by a dealer or exhibitor as part of his or her records.

Labels attached to primary enclosures, leg and wing bands, and transponders (also referred to as microchips) are preferred methods of identification for birds. These methods are commonly and safely used to identify birds in all segments of the avian industry that we would regulate. The ability to identify animals is a part of basic animal husbandry and allows for APHIS to track animals to monitor movement. Therefore, we propose to require dealers and exhibitors to identify their birds that are confined to a primary enclosure using one of the following: (1) A label attached to the primary enclosure that bears a description of the birds in the primary enclosure, including the number and species of birds and any distinctive physical features or identifying marks of the birds; (2) a leg or wing band applied to each bird in the primary enclosure by the dealer or

[10] APHIS has issued guidance exempting field studies, defined by APHIS as studies conducted on free-living wild animals in their natural habitat, from this requirement. However, this term excludes any study that involves an invasive procedure, harms, or materially alters the behavior of an animal under study. For more detail, see the APHIS Tech Note, ''Research Involving Free-living Wild Animals in Their Natural Habitat,'' at *https://www.aphis.usda.gov/animal_welfare/downloads/tech-note-free-living-wild-animals.pdf.*

[11] *Guide for the Care and Use of Laboratory Animals,* 8th Edition, National Research Council: *https://grants.nih.gov/grants/olaw/guide-for-the-care-and-use-of-laboratory-animals.pdf.* Page 144 of the *Guide* states that, ''for most survival surgery performed on rodents and other small species such as aquatics and birds, an animal procedure laboratory is recommended; the space should be dedicated to surgery and related activities *when used for this purpose, and managed to minimize contamination from other activities conducted in the room at other times.*'' [Our emphasis.] In other words, a surgical area for rodents and birds is not exclusively intended for that purpose as it is for higher vertebrate species.

exhibitor that individually identifies each bird by description or number; or (3) a transponder (microchip) placed in a standard anatomical location for the species in accordance with currently accepted professional standards, provided that the facility has a compatible transponder reader that is capable of reading the transponder and that the reader is readily available for use by an APHIS official and/or facility employee accompanying the APHIS official. We would add these proposed requirements as a new paragraph (e)(2) in § 2.50 and redesignate current paragraphs (e)(2) and (3) as paragraphs (e)(3) and (4), respectively, to accommodate that new paragraph. Birds that are not confined to a primary enclosure would be subject to the identification requirements contained in redesignated paragraph (e)(4) (current paragraph (e)(3)). Under that paragraph, such birds would have to be identified on a record, as required by § 2.75 of the regulations, which would have to accompany the bird at the time it is delivered for transportation, transported, purchased, or sold, and would have to be kept and maintained by the dealer or exhibitor as part of his or her records.

Records: Dealers and Exhibitors—§ 2.75

Currently, § 2.75(b)(1) of the regulations requires that dealers (other than operators of auction sales and brokers to whom animals are consigned) and exhibitors make, keep, and maintain records or forms which fully and correctly disclose certain identification and disposition information concerning animals other than dogs and cats that are purchased or otherwise acquired, owned, held, leased, or otherwise in their possession or under their control, or that they transport, sell, euthanize, or otherwise dispose of. Among other things, the records must include any offspring born of any animal while in the dealer's or exhibitor's possession or under his or her control.

We propose to apply these recordkeeping requirements to dealers and exhibitors of birds and would apply to all birds covered under the AWA. While we acknowledge that some stakeholders commented that maintaining records of individual birds in large flocks is infeasible, we consider an accounting of each covered animal important for the purposes of ensuring adequate animal welfare for every animal. For example, among other purposes, it is necessary in order to account for additions of covered animals to the inventory at the facility, as well as mortalities. The only change that would be necessary in § 2.75(b)(1) to reflect its applicability to dealers and exhibitors of birds would be to add the words ''or hatched'' after the word ''born'' in the previously cited provision regarding records for offspring born to animals while they are under a dealer's or exhibitor's possession or control.

Records: Operators of Auction Sales and Brokers—§ 2.76

Section 2.76 requires that operators of auction sales and brokers maintain records for any animal consigned for auction or sold, whether or not a fee or commission is charged. Paragraph (a) of § 2.76 provides that those records must include such information as the name and address of the buyer or consignee who received the animal, the USDA license or registration number (if applicable) of the person selling, buying, or receiving the animals, the date of consignment, the band, microchip, or other durable individualized identification method assigned to the animal under § 2.50 or § 2.54, and a description of each animal. Currently, § 2.76(a)(7) requires a description of each animal that includes the species and breed or type of animal, the sex of the animal, the date of birth or approximate age, and the color and any distinctive markings.

Because the sex of some birds may not be readily determinable, we are proposing to amend paragraph (a)(7) to require operators of auction sales and brokers to record the sex of a bird only if it is readily determinable. To reflect the fact that birds lay eggs, rather than give birth to live young, we would also add the words ''or hatch date'' after the words ''date of birth'' in paragraph (a)(7)(iii).

The regulations currently allow operators of auction sales and brokers to provide an approximate age in lieu of an animal's date of birth in those instances where the exact date of birth of the animal is unknown. We recognize that it is sometimes difficult to even estimate the approximate age of certain species of birds, so we also would allow the approximate developmental stage of an animal to be provided if the date of birth or hatch date is unknown. For example, an operator of an auction sale or broker who does not know the hatch date or approximate age of a bird may disclose that the bird is a chick, juvenile, or adult on the records or forms maintained for that bird in accordance with § 2.76 of the regulations.

Proposed Standards in 9 CFR Part 3

As we noted above, the Act authorizes the Secretary of Agriculture to promulgate standards governing the humane handling, care, treatment, and transportation of covered animals by dealers, research facilities, exhibitors, operators of auction sales, and carriers and intermediate handlers. For dealers, research facilities, and exhibitors of animals covered by the Act, such standards must include minimum requirements for handling, housing, feeding, watering, sanitation, ventilation, shelter from extreme weather and temperatures, adequate veterinary care, and separation by species where necessary.

The standards relating to the humane handling, care, treatment, and transportation of animals currently covered by the AWA are contained in 9 CFR part 3, subparts A though F. Subparts A through E contain specific standards for dogs and cats, guinea pigs and hamsters, rabbits, nonhuman primates, and marine mammals respectively, while subpart F sets forth general standards for warmblooded animals not otherwise specified in that part. In this document, we are proposing to add a new subpart G to contain standards for birds.

The proposed standards for birds are divided into three broad areas: Facilities and operating standards; animal health and husbandry standards; and transportation standards. The standards in these areas address requirements under the Act. In the listening sessions held on this rulemaking, many commenters asked that we consider standards for birds that are flexible enough to ensure their species-specific needs are met. Many commenters also stated that, given the vast number of bird species, prescriptive standards would generally be impracticable and burdensome to the aviculture community. We agree with commenters on these points and have developed the proposed standards accordingly. As a whole, these standards provide APHIS the means to effectively measure compliance and ensure animal welfare, while also affording breeders, dealers, exhibitors, and transporters flexibility to implement the standards using the expertise and knowledge they have of their particular birds. On this point, we invite comments on ways that APHIS might assist regulated entities with implementation of these standards, whether through documents, guides, training, or other means. The standards for proposed Subpart G—Specifications for the Humane Handling, Care, Treatment, and Transportation of Birds are discussed below by topic.

Facilities and Operating Standards

Facilities, General

Facilities, General: Structure; Construction—Proposed § 3.150(a)

Housing facilities must be safe and secure not only for birds but also for the persons attending to them and to the general public. As we noted above, the current regulations in part 3 for animals include requirements for housing that consider both animal and human safety. Therefore, we are proposing in § 3.150(a) to require that housing facilities for birds be designed and constructed so that they are structurally and safely sound for the species of bird housed in them. We would also require that they be kept in good repair, protect the birds from injury, and restrict the entry of other animals. The facilities would have to employ security measures that contain all the birds securely. Such measures may include safety doors, entry/exit doors to the primary enclosure that are double-doored, or other equivalent systems designed to prevent escape of the birds. For birds that are flight-restricted or cannot fly and are allowed to roam free within the housing facility or a portion thereof, we would require that the birds have access to safety pens, enclosures, or other areas that offer the birds protection during overnight periods and at times when their activities are not observed by staff.

Facilities, General: Condition and Site—Proposed § 3.150(b)

Housing facilities and areas used for storing animal food or bedding would have to be adequately free of any accumulation of trash, waste material, other discarded materials, junk, weeds, and brush. We would also require that such areas be kept neat and free of clutter, including equipment, furniture, and stored material, except for materials actually used and necessary for cleaning the area, and fixtures or equipment necessary for proper husbandry practices and research needs.

Facilities, General: Surfaces—Proposed § 3.150(c)

The surfaces of housing facilities would have to be constructed in a manner and made of materials that allow them to be readily cleaned and/or sanitized, or removed and replaced when worn or soiled. Interior surfaces and surfaces that come in contact with birds would also have to be nontoxic to the bird, free of rust or damage that affects the structural integrity of the surface or prevents cleaning, and free of jagged edges or sharp points that could injure the birds. This proposed standard would allow for thorough cleaning of the primary enclosure to prevent bacterial, excrement, or other organic buildup that could be a health hazard to the birds. It would also ensure that the birds are contained securely and that the surfaces that come in contact with the birds are not harmful to them.

Facilities, General: Water and Electric Power—Proposed § 3.150(d)

A reliable source of water and power must be available. Therefore, we are proposing that the facility must have reliable electric power adequate for heating, cooling, ventilation, and lighting, and for carrying out other husbandry requirements in accordance with the proposed standards for birds. We also propose that the facility provide adequate potable water for the birds' drinking needs and adequate water for cleaning and carrying out other husbandry requirements.

Facilities, General: Storage—Proposed § 3.150(e)

Supplies of food, including food supplements, bedding, and substrate, would have to be stored in a manner that protects the supplies from spoilage, contamination, and vermin infestation. We would require that the supplies be stored off the floor and away from the walls, to allow cleaning underneath and around the supplies. All food would have to be stored at appropriate temperatures and in a manner that prevents contamination and deterioration of its nutritive value, and food would not be allowed to be used beyond its shelf-life date or expiration date listed on the label. All open supplies of food and bedding would have to be kept in waterproof containers with tightly fitting lids to prevent deterioration and contamination, except for live, frozen, or refrigerated food. We would also require that live food be maintained in a manner to ensure wholesomeness. We would also provide that substances such as cleaning supplies and disinfectants that are harmful to birds but required for normal husbandry practices may not be stored in food storage and preparation areas but may be stored in cabinets in the animal areas, provided that they are stored in properly labeled containers that are adequately secured to prevent potential harm to the birds. Finally, we would prohibit animal waste and dead animals and animal parts not intended for food from being kept in food storage or food preparation areas, food freezers, food refrigerators, and animal areas.

Facilities, General: Waste Disposal—Proposed § 3.150(f)

Proper waste disposal is essential in maintaining the cleanliness and sanitary condition of facilities housing birds and directly affects the health and well-being of such animals. Therefore, we are proposing to require that housing facility operators provide for regular and frequent collection, removal, and disposal of animal and food wastes, substrate, dead animals, debris, garbage, water, and any other fluids and wastes in a manner that minimizes contamination and disease. We would require that trash containers in housing facilities and in food storage and food preparation areas be leakproof and have tightly fitted lids.

Facilities, General: Drainage—Proposed § 3.150(g)

Proper drainage must be provided in order to maintain cleanliness and sanitary conditions. Therefore, we are proposing the following standards:

- Housing facilities would have to be equipped with disposal and drainage systems that are constructed and operated so that animal wastes and water, except for water located in pools or other aquatic areas (*e.g.,* ponds, waterfalls, fountains, and other water features), are rapidly eliminated and the animals have the option of remaining dry. We would require that any pool or other aquatic area be maintained in accordance with the regulations in proposed § 3.157, which are discussed below.
- Disposal and drainage systems would have to minimize vermin and pest infestation, insects, odors, and disease hazards.
- All drains would have to be properly constructed, installed, and maintained so that they effectively drain water. If closed drainage systems are used, they would have to be equipped with traps and prevent the backflow of gases and the backup of sewage. If the facility uses sump ponds, settlement ponds, or other similar systems for drainage and animal waste disposal, the system would have to be located a sufficient distance from the bird area of the housing facility to prevent odors, diseases, insects, pests, and vermin infestation in the bird area.
- If drip or constant flow watering devices are used to provide water to the animals, excess water would have to be rapidly drained out of the animal areas by gutters or pipes so that the animals have the option of remaining dry.

Facilities, General: Toilets, Washrooms, and Sinks—Proposed § 3.150(h)

Toilets and washing facilities, such as washrooms, basins, sinks, or showers, would have to be provided for and be readily accessible to animal caretakers.

Facilities, Indoor

Facilities, Indoor: Temperature and Humidity—Proposed § 3.151(a)

Maintaining appropriate air temperature and humidity levels and, if present, pool or other aquatic area (*e.g.,* ponds, waterfalls, fountains, and other water features) temperature is vital to the health and well-being of birds. Therefore, we would require that the air temperature and humidity levels and, if present, pool or other aquatic area temperatures in indoor facilities be sufficiently regulated and appropriate to the bird species to protect them against detrimental temperature and humidity levels, to provide for their health and well-being, and to prevent discomfort or distress, in accordance with current professionally accepted standards. Prescribed temperature and humidity levels would be part of the written program of veterinary care or part of the full-time veterinarian's records.

Facilities, Indoor: Ventilation—Proposed § 3.151(b)

Ventilation is important to ensure that birds are provided adequate fresh air for their respiratory needs in both quantity and quality. Therefore, we would require that indoor housing facilities be sufficiently ventilated at all times when birds are present to provide for their health, to prevent their discomfort or distress, accumulations of moisture condensation, odors, and levels of ammonia, chlorine, and other noxious gases. We would also require that the ventilation system minimize any drafts.

Facilities, Indoor: Lighting—Proposed § 3.151(c)

Indoor housing facilities would need to have lighting, by natural or artificial means, or both, of appropriate quality, distribution, and duration for the bird species. We would require that such lighting be sufficient to permit routine inspection and cleaning and be designed to protect the birds from excessive illumination that may cause discomfort or distress.

Facilities, Indoor: Indoor Pool and Other Aquatic Areas—Proposed § 3.151(d)

Indoor pools or other aquatic areas (*e.g.,* ponds, waterfalls, fountains, and other water features) would have to have sufficient vertical air space above the pool or other aquatic area to allow for behaviors typical to the species of bird under consideration. Such behaviors may include, but are not limited to, diving and swimming.

Facilities, Outdoor

Facilities, Outdoor: Acclimation—Proposed § 3.152(a)

Birds come from a great variety of climatic conditions. There is also a wide range of climatic conditions within the United States. Outdoor housing facilities are completely dependent on the local environmental conditions. Therefore, we are proposing that birds may not be housed in outdoor facilities unless the air humidity and temperature ranges they may encounter do not adversely affect their health and comfort. This provision would also apply to the temperature of pools and other aquatic areas (ponds, waterfalls, fountains, and other water features). Further, we would provide that birds may not be introduced to an outdoor housing facility until they are acclimated to the ambient temperature and humidity and, if applicable, pool or other aquatic area temperature range which they will encounter therein.

Facilities, Outdoor: Shelter From Inclement Weather—Proposed § 3.152(b)

Outdoor housing facilities would have to provide adequate shelter, appropriate to the species and physical condition of the birds, for the local climatic conditions, in order to protect the birds from any adverse weather conditions. We would require that such shelters be adequately ventilated in hot weather and have one or more separate areas of shade or other effective protection that is large enough to contain all the birds at one time and prevent their discomfort from direct sunlight, precipitation, or wind. The shelter would have to be constructed to provide sufficient space to comfortably hold all of the birds at the same time without adverse intraspecific aggression or grouping of incompatible birds. For birds that form dominance hierarchies and that are maintained in social groupings, we would make it explicit that such shelter(s) would have to be constructed so as to provide sufficient space to comfortably hold all the birds at the same time, including birds that are low in the hierarchy.

Primary Enclosures

Primary Enclosures: General Requirements—Proposed § 3.153(a)

Primary enclosures would have to be designed and constructed of suitable materials so that they are structurally sound. We would also require that the primary enclosures be kept in good repair and be constructed and maintained so that they:

- Have no sharp points or edges that could injure the birds;
- Protect the birds from injury;
- Contain the birds securely;
- Restrict other animals from entering the enclosure;
- Ensure that birds have the option to remain dry and clean;
- Provide shelter and protection for each bird from climatic and environmental conditions that may be detrimental to its health and well-being;
- Provide sufficient shade to comfortably shelter all birds housed in the primary enclosure at one time, including low ranking birds that are maintained in social groupings that form dominance hierarchies;
- Provide all the birds with easy and convenient access to clean food and potable water;
- Ensure that all surfaces in contact with the birds may be readily cleaned and/or sanitized in accordance with proposed § 3.158 of the regulations, or be replaced when worn or soiled; and
- Have floors that are constructed in a manner that protects the birds' feet and legs from injury. If flooring material is suspended, it would have to be sufficiently taut to prevent sagging under the birds' weight. If substrate is used in the primary enclosure, the substrate would have to be clean and made of a suitably absorbent material that is safe and nontoxic to the birds.

In addition, we would require that furniture-type objects, such as perches and other objects that enrich a bird's environment, be species-appropriate and designed, constructed, and maintained so as to prevent harm to the birds. If the enclosure houses birds that rest by perching, there would have to be perches available that are appropriate to the age and species of birds housed therein and a sufficient number of perches of appropriate size, shape, strength, texture, and placement to comfortably hold all the birds in the primary enclosure at the same time, including birds that are ranked low in a dominance hierarchy.

Finally, we would require primary enclosures that are adjacent to one another or that share a common side with another enclosure to be suitably screened from each other or kept at a sufficient distance apart in order to prevent injury of the occupants due to predation, territorial disputes, or aggression.

Primary Enclosures: Space Requirements—Proposed § 3.153(b)

Space requirements for the wide variety of birds that are subject to the Act are quite variable. Therefore, the proposed space requirements contained in this proposal are performance-based standards intended to provide adequate space to ensure the health and well-being of the birds. The primary enclosures would have to be constructed and maintained to allow each bird to make normal postural and social adjustments, such as dust-bathing and foraging, with adequate freedom of movement and freedom to escape from aggression by other animals in the enclosure according to the program of veterinary care developed, documented in writing, and signed by the attending veterinarian. The attending veterinarian for a facility, whether full- or part-time, would need to document and maintain a record that the space in all enclosures housing birds are adequate and allow for normal postural and social adjustments. Inadequate space may be indicated by evidence of malnutrition, poor condition, debility, stress, or abnormal behavior patterns.

We would provide three exceptions to this space requirement. First, we are proposing that the species-typical postural or social adjustments of a bird may be restricted when the attending veterinarian determines that allowing the bird to make normal postural and social adjustments would be detrimental to its good health and well-being. We propose that the species-typical postural or social adjustments of a bird may be restricted—for instance, in the case of a bird having undergone a medical procedure whose recovery could be adversely impacted unless movement is restricted—where the attending veterinarian determines that making normal postural and social adjustments would be detrimental to the bird's good health and recovery. The attending veterinarian would have to document the reason and recommended duration for the restriction and make such records available for review by an APHIS inspector.

Second, we would provide that a bird's normal postural and social adjustments may be restricted where the bird is tethered in accordance with professionally accepted standards. We would provide that a bird may only be tethered if: (1) It is appropriate for the species; (2) it will not cause any form of harm to the bird; (3) the bird is maintained on a perch appropriate for the species and age of the bird while tethered; (4) the bird has sufficient space to fully extend its wings without obstruction; and (5) the tether does not entangle the bird.

Third, we would provide that, when dealers, exhibitors, and research facilities breed or intend to breed their birds, such birds would have to be provided with structures and/or materials that meet the reproductive needs of the species during the appropriate season or time periods. A sufficient number of structures and materials must be provided to meet the needs of all breeding birds in an enclosure and to minimize aggression.

Fourth, we would provide that birds intended for breeding sale, in need of medical care, exhibited in traveling exhibits, or traveling for other reasons would have to be kept in enclosures that, at minimum, meet the specific space, safety, bedding, perch, and physical environment (including, but not limited to, temperature, humidity, sun and wind exposure) requirements for transport enclosures as specified in proposed § 3.162. At all other times, we would require that birds be housed in enclosures that meet the space requirements of this section.

Primary Enclosures: Special Space Requirements for Wading and Aquatic Birds—Proposed § 3.153(c)

Wading and aquatic birds are active on both land and water and require access to pools or other aquatic areas (*e.g.,* ponds, waterfalls, fountains, and other water features) to ensure their health and well-being. Therefore, we are proposing to require that primary enclosures housing wading and aquatic birds contain a pool or other aquatic area and a dry activity area that allows easy ingress or egress of the pool or other aquatic area. We would require that the pool or other aquatic area be of sufficient surface area and depth to allow each bird to make normal postural and social adjustments, such as immersion, bathing, swimming, and foraging, with adequate freedom of movement and freedom to escape from aggression demonstrated by other birds in the enclosure. Similarly, the dry areas would have to be of sufficient size to allow each bird to make normal postural and social adjustments with adequate freedom of movement and freedom to escape from aggression demonstrated by other birds in the enclosure. Inadequate space may be indicated by evidence of malnutrition, poor condition, debility, stress, or abnormal behavior patterns.

Environment Enhancement To Promote Psychological Well-Being—Proposed § 3.154

As evidenced by first-hand observation and scientific studies, many species of birds exhibit a level of intelligence and an ability to solve problems approaching that of higher mammals. As the regulations in subpart D, § 3.81, require a plan to provide environmental enhancement for nonhuman primates that includes social grouping and enrichment requirements, we are likewise proposing a set of requirements specifically for birds in a proposed § 3.154.

Under the proposed requirements, dealers, exhibitors, and research facilities would need to develop, document, and follow a species-appropriate plan for environment enhancement adequate to promote the psychological well-being of birds. The plan, which would be part of the required program of veterinary care, would have to be approved by a veterinarian and be in accordance with the other regulations proposed in Subpart G—Specifications for the Humane Handling, Care, Treatment, and Transportation of Birds. The plan would also have to conform with currently accepted professional standards.

We note that environmental enhancements, while essential to the psychological well-being of many birds, do not typically require extensive or costly facility modifications. Depending on the species, enhancement actions in a plan could include ensuring that birds are kept in appropriate social groupings, that they are given opportunities to forage, or that they have access to species-appropriate perches and chewing materials.

The plan for environment enhancement would be made available to APHIS upon request, and also, in the case of research facilities, to officials of any pertinent funding agency. The plan, at a minimum, would need to address social grouping needs, environmental enrichment, special considerations for young birds and birds needing to be isolated due to aggression or disease, use of restraints, and birds exempted from the plan.

Environment Enhancement To Promote Psychological Well-Being: Social Grouping—Proposed § 3.154(a)

Under proposed § 3.154(a), the environment enhancement plan would need to include specific provisions to address the social needs of birds of species known to exist in social groups in nature. Such specific provisions would have to be in accordance with currently accepted professional standards. Birds that are overly aggressive, debilitated, or in need of isolation due to a contagious disease may be excepted from social grouping requirements. One or more birds

suspected of contagious diseases may be isolated from healthy animals prior to and as directed by the attending veterinarian or as instructed in the program of veterinary care. When an entire group or room of birds is known to have been or believed to be exposed to an infectious agent, the group could be kept intact during the process of diagnosis, treatment, and control.

We also propose to require that birds may only be housed with other animals, including members of their own species, if they are compatible, do not prevent access to food, water, or shelter by individual animals, and are not known to be hazardous to the health and well-being of each other. We would require that bird compatibility be determined in accordance with generally accepted professional practices and observations by the attending veterinarian during his or her regularly scheduled visits to the facility. In addition, we would require that individually housed social species of birds are able to see and hear birds of their own or compatible species unless determined otherwise by the veterinarian.

Environment Enhancement To Promote Psychological Well-Being: Environmental Enrichment—Proposed § 3.154(b)

Proposed § 3.154(b) would require that the plan address species-specific environmental enrichment for birds. Under this requirement, the plan would include enrichment materials or activities that would provide the birds with the means to express noninjurious species-typical activities. Examples of environmental enrichments could include providing perches, swings, mirrors, and other increased cage complexities; providing objects to manipulate; varied food items; using foraging or task-oriented feeding methods; and providing interaction with the care giver or other familiar and knowledgeable person consistent with personnel safety precautions.

Environment Enhancement To Promote Psychological Well-Being: Special Considerations—Proposed § 3.154(c)

Proposed paragraph (c) would require that special considerations for certain birds be included in the enhancement plan. Such birds, determined based on the needs of the individual species and under the instructions of the attending veterinarian, include infants and young juveniles, birds showing signs of psychological distress through behavior or appearance, birds used in research for which an IACUC-approved protocol requires restricted activity, and individually housed social species of birds that are unable to see and hear birds of their own or compatible species.

Environment Enhancement To Promote Psychological Well-Being: Restraint Devices—Proposed § 3.154(d)

We would impose restrictions on restraint devices in proposed paragraph (d). Birds would not be permitted to be maintained in restraint devices unless required for health reasons as determined by the attending veterinarian or approved by a research facility. Any restraining actions would have to be for the shortest period possible. If the bird is to be restrained for more than 12 hours, it must be provided the opportunity daily for unrestrained activity for at least 1 continuous hour during the period of restraint, unless continuous restraint is required by the research proposal approved by the IACUC at research facilities.

Environment Enhancement To Promote Psychological Well-Being: Exemptions—Proposed § 3.154(e)

Proposed § 3.154(e) would provide that the attending veterinarian may exempt a bird from participation in the environment enhancement plan due to considerations of health or condition and well-being. The basis of the exemption would have to be recorded by the attending veterinarian for each exempted bird. Unless the exemption is based on a permanent condition, we would require a review of the exemption by the attending veterinarian every 30 days.

For a research facility, the IACUC may exempt an individual bird from participation in some or all of the otherwise required environment enhancement plans for scientific reasons set forth in the research proposal. The basis of the exemption shall be documented in the approved proposal and must be reviewed at appropriate intervals as determined by the IACUC, but not less than annually.

Finally, we would also require in paragraph (e) that records of any exemptions must be maintained by the dealer, exhibitor, or research facility for at least 1 year in accordance with § 2.80 and must be made available to APHIS officials, and also to officials of any pertinent funding agency upon request.

Animal Health and Husbandry Standards

Feeding—Proposed § 3.155

The nutritional needs of birds vary greatly. Therefore, we are proposing a general feeding standard that is flexible enough to ensure the health and well-being of all birds. Specifically, we would require that the diet be appropriate for the species, size, age, and condition of the bird. The food would have to be wholesome, palatable to the birds, and free of contamination. The food would also have to be of sufficient quantity and nutritive value to maintain a healthy condition and weight range of the bird and to meet its normal daily nutritional requirements. We would require that birds be fed at least once a day except as directed by the attending veterinarian. If birds are maintained in group housing, measures appropriate for the species would have to be taken to ensure that all the birds receive a sufficient quantity of food. For example, for some flighted birds, such measures may include locating multiple food receptacles at different levels in the enclosure to ensure that all the birds have access to food receptacles and the food contained therein, including birds that are ranked low in a dominance hierarchy.

Food and, if used, food receptacles would have to be readily accessible to all the birds being fed. Food and any food receptacles would have to be located so as to minimize any risk of contamination by excreta, precipitation (*e.g.,* rain, hail, and snow), and pests. Food receptacles and feeding areas would have to be kept clean and sanitized in accordance with proposed § 3.158. Used food receptacles would have to be cleaned and sanitized before they can be used to provide food to birds maintained in a separate enclosure. We would also require that measures be taken to ensure there is no molding, deterioration, contamination, or caking or undesirable wetting or freezing of food within or on food receptacles. Food receptacles would have to be made of a durable material that can be easily cleaned and sanitized or replaced when worn or soiled. Group-housed birds would have to have multiple food receptacles where needed to ensure that all birds have access to sufficient feed.

Watering—Proposed § 3.156

Under proposed § 3.156, potable water would have to be provided in sufficient quantity to every bird housed at the facility, unless restricted by the attending veterinarian. If potable water is not continually available to the birds, it would need to be offered to them as often as necessary to ensure their health and well-being. In addition, water receptacles would have to be kept clean and sanitized in accordance with § 3.158 as often as necessary to keep them free of contamination. Used water

receptacles must be cleaned and sanitized before they may be used to provide water to birds maintained in a separate enclosure. Finally, group-housed birds would have to have multiple water receptacles where needed to ensure that all birds have access to sufficient water.

Water Quality—Proposed § 3.157

Water quality is important for birds active on both land and water, and at least minimum water quality standards need to be maintained for the good health and well-being of the animals. Therefore, we are proposing that, if the primary enclosure or other areas in which birds may enter contain pools or other aquatic areas (*e.g.,* ponds, waterfalls, fountains, and other water features), such areas must not be detrimental to the health of the birds contained therein. Particulate animal and food waste, trash, or debris that enters such pools or other aquatic areas would have to be removed as often as necessary to maintain the required water quality and minimize health hazards to the birds. Pools or other aquatic areas that are equipped with drainage systems would have to provide adequate drainage so that all of the water contained in such areas may be effectively eliminated when necessary to clean the pool or other aquatic area and for other purposes while not risking harm to birds. Pools or other aquatic areas with standing water, such as some ponds, would have to be aerated and have an incoming flow of fresh water or be managed in another manner to maintain appropriate water quality in accordance with current professionally accepted standards for the bird species in these ponds.

When the water is chemically treated, the chemicals would have to be added so as not to cause harm, discomfort, or distress to the animals. Natural organisms (such as fish, reptiles, amphibians, mammals, algae, commensal bacteria, protozoa, coelenterates, or mollusks) that do not degrade water quality, prevent proper maintenance, or pose a health hazard to the birds would not be considered contaminants. Should birds appear to be harmed by water quality, appropriate action would have to be taken immediately.

Finally, pools or other aquatic areas would have to be salinized for birds that require salinized water for their good health and well-being in accordance with current professionally accepted standards.

Cleaning, Sanitization, Housekeeping, and Pest Control

Cleaning—Proposed § 3.158(a)

Proper cleaning of primary enclosures is necessary to prevent the accumulation of feces and food waste and to reduce disease hazards, pests, insects, and odors. Therefore, we are proposing to require that excreta and food waste be removed from primary enclosures and from under and around primary enclosures as often as necessary to prevent excessive accumulation of feces and food waste, to prevent soiling of the birds contained in the primary enclosures, and to reduce disease hazards, insects, pests, and odors. When steam or water is used to clean primary enclosures, measures would have to be taken to protect birds from being harmed, wetted involuntarily, or distressed in the process. Standing water, except in pools or other aquatic areas (*e.g.,* ponds, waterfalls, fountains, and other water features), would have to be removed from the primary enclosure.

Scheduled cleaning may be modified or delayed during breeding, egg-sitting, or feeding of chicks for those species of birds that are easily disrupted during such behaviors. Scheduled cleaning would have to resume when cleaning would no longer disrupt such behaviors. In these situations, we would require that a schedule of cleaning be documented that includes when breeding season began, when the primary enclosure was last cleaned, and when cleaning is expected to resume. Such records would have to be available for review by an APHIS inspector.

Sanitization—Proposed § 3.158(b)

Proper sanitary practices directly affect the good health and well-being of birds. Primary enclosures and food and water receptacles for birds would have to be sanitized as often as necessary to prevent accumulation of dirt, debris, food waste, excreta, and other disease hazards. However, as with cleaning, sanitization may be modified or delayed during breeding, egg-sitting, or feeding of chicks for those species of birds that are easily disrupted during such behaviors but would have to resume when it no longer disrupts such behaviors. In such situations, we would require that a schedule of sanitization be documented that includes when breeding season began, when the primary enclosure was last sanitized, and when sanitization is expected to resume. Such records would have to be available for review by an APHIS inspector.

We would require that the hard surfaces of primary enclosures and food and water areas and equipment be sanitized before a new bird may be brought into a housing facility or if there is evidence of infectious disease among the birds in the housing facility. Finally, we would require that primary enclosures using materials that cannot be sanitized using conventional methods, such as gravel, sand, grass, earth, planted areas, or absorbent bedding, be sanitized by removing all contaminated material as necessary or by establishing a natural composting and decomposition system that is sufficient to prevent wasted food accumulation, odors, disease, pests, insects, and vermin infestation.

Housekeeping for Premises—Proposed § 3.158(c)

Good housekeeping practices are essential in minimizing pest risks that can occur in animal areas. Premises where housing facilities are located, including buildings, surrounding grounds, and exhibit areas, would have to be kept clean and in good repair in order to protect the birds from injury and disease, to facilitate the husbandry practices required in the regulations, and to reduce or eliminate areas where rodents and other vertebrate and invertebrate animals harmful to birds can live and breed. Premises would also have to be kept free of accumulations of trash, junk, waste products, and discarded matter. Weeds, grasses, and bushes would have to be controlled so as to facilitate cleaning of the premises and pest control, and to protect the health and well-being of the birds.

Pest Control—Proposed § 3.158(d)

A pest control program is necessary to promote the health and well-being of birds at a facility and to reduce contamination by pests in the animal area. Therefore, we are proposing that a safe and effective program for the control of insects, ectoparasites, and avian and mammalian pests be established and maintained so as to promote the health and well-being of the birds and reduce contamination by pests in animal areas. Insecticides, chemical agents, or other methods of controlling pests that may be harmful to the birds would be prohibited in primary enclosures and in other areas or on surfaces with which the birds may come in contact, unless their application is consistent with manufacturer recommendations or otherwise approved for use and does not harm birds.

Employees—Proposed § 3.159

A sufficient number of adequately trained employees or attendants would

have to be utilized to maintain the professionally acceptable level of husbandry and handling practices set forth in the proposed standards. The need for personnel to have the knowledge and skill to perform these practices is addressed in the current standards for all other animals covered under the AWA regulations. These practices would be conducted under the supervision of a bird caretaker who has appropriate experience in the husbandry and care of birds that are being managed in a given setting.

Compatibility and Separation—Proposed § 3.160

Under this section, we would require that socially dependent birds be housed in social groups, unless the attending veterinarian exempts an individual bird because of its health or condition, or in consideration of its well-being, or specific management needs. Veterinary exemption is also permissible where such social grouping is not in accordance with a research proposal and the proposal has been approved by the research facility IACUC. Birds may only be housed with other animals, including members of their own species, if they are compatible, do not prevent access to food, water, or shelter by individual animals, and are not known to be hazardous to the health and well-being of each other. Compatibility would have to be determined in accordance with generally accepted professional practices, and by actual observation, to ensure that the birds are, in fact, compatible. Finally, we would require that birds that have or are suspected of having a contagious disease or communicable condition must be separated from healthy animals that are susceptible to the disease as directed by the attending veterinarian. These proposed requirements are necessary to allow birds to peacefully coexist in primary enclosures and to protect their physical health and welfare.

Transportation Standards

The proposed transportation standards contained in §§ 3.161 through 3.168 have been written to provide birds with the same general protection and care as that provided for other species of animals covered by the AWA. Some birds, however, do have special transportation needs. For example, while most birds require space to make normal postural adjustments during transport, there are some birds that may injure themselves if their movements are not restricted. Therefore, the intention of the proposed transportation standards for birds is to account for these animals' unique needs while still providing them with equivalent protection and care as other covered animals.

We note that many foreign air carriers are members of the International Air Transport Association (IATA) and may already comply with most of the physical requirements contained in this proposed rule. The IATA regulations generally align with the intent of the AWA in ensuring the humane and safe transportation of animals but diverge from the proposed regulations and standards in certain areas, such as recordkeeping requirements. Where such divergences exist, the AWA regulations and standards would need to be followed.

Consignments to Carriers and Intermediate Handlers—Proposed § 3.161

Regulated entities, such as dealers and exhibitors, may elect to consign their bird to a carrier or intermediate handler in connection with the animal's transportation in commerce. To ensure the health and well-being of birds during such transport in commerce, we are proposing to establish several conditions that must be met before carriers and intermediate handlers can accept a bird for transport. Specifically, we would provide that carriers and intermediate handlers must not accept a live bird for transport in commerce more than 4 hours before the scheduled departure time of the primary conveyance on which the animal is to be transported. However, we would provide that a carrier or intermediate handler may agree with anyone consigning a bird to extend this time by up to 2 hours if specific prior scheduling of the animal shipment to a destination has been made, provided that the extension is not detrimental to the health and well-being of the bird as determined by the consignor.

Carriers and intermediate handlers would not be allowed to accept a live bird for transport in commerce unless they are provided with the name, address, and telephone number of the consignee. Carriers and intermediate handlers would also not be allowed to accept a live bird for transport in commerce unless the consignor certifies in writing to the carrier or intermediate handler that the bird was offered food and water during the 4 hours prior to delivery to the carrier or intermediate handler. Carriers and intermediate handlers must not accept unweaned birds for transport unless transport instructions are specified as a part of the program of veterinary care.

Certification for shipment of birds would have to be securely attached to the outside of the primary enclosure in a manner that makes it easy to notice and read. The certification would have to include the following information for each live bird: The consignor's name, address, email address, and telephone number; the number of birds; the species or common names of the birds; the time and date the bird was last fed and watered; and the specific instructions for the next feeding(s) and watering(s) for a 24-hour period; and the consignor's signature and the date and time the certification was signed.

Carriers and intermediate handlers would not be allowed to accept a live bird for transport in commerce in a primary enclosure unless the enclosure meets the requirements of proposed § 3.162. A carrier or intermediate handler would be prohibited from accepting a live bird for transport if the primary enclosure is defective or damaged and cannot be expected to contain the bird safely and comfortably.

Carriers and intermediate handlers would also not be allowed to accept a live bird for transport in commerce unless their animal holding area can maintain climatic and environmental conditions in accordance with the requirements of proposed § 3.168. (As discussed below, § 3.168 sets out climatic and environmental conditions for the transportation of animals and requires, among other things, that such transportation must be done in a manner that does not cause overheating, excessive cooling, or adverse environmental conditions that could cause discomfort or stress.)

Following the arrival of any live birds at the bird holding area of the terminal cargo facility, we would require that carriers and intermediate handlers attempt to notify the consignee at least once in every 6-hour period. The time, date, and method of each attempted notification and the final notification to the consignee and the name of the person notifying the consignee would have to be recorded on the copy of the shipping document retained by the carrier or intermediate handler and on a copy of the shipping document accompanying the bird shipment.

Primary Enclosures Used To Transport Live Birds

Under proposed § 3.162, no person subject to the AWA regulations would be allowed to transport or deliver for transport in commerce a bird unless the following requirements are met:

Primary Enclosures: Construction of Primary Enclosures—Proposed § 3.162(a)

Birds would have to be contained in a primary enclosure such as a compartment, transport cage, carton, or crate, except as provided in proposed paragraph (e) in § 3.162. Primary enclosures used to transport birds would have to be constructed so that:

- The primary enclosure is strong enough to contain the birds securely and comfortably and to withstand the rigors of transportation normally encountered during transportation;
- The interior of the enclosure has no sharp points or edges and no protrusions that could injure the birds contained therein;
- The bird is at all times securely contained within the enclosure and cannot put any part of its body outside the enclosure in a way that could result in injury to itself, to handlers, or to other persons or to other animals nearby;
- The birds can be easily and quickly removed from the enclosure in an emergency;
- Unless the enclosure is permanently affixed to the conveyance, adequate handholds or other devices such as handles are provided on its exterior, and enable the enclosure to be lifted without tilting it, and ensure that anyone handling the enclosure will not be in contact with the bird contained inside;
- Unless the enclosure is permanently affixed to the conveyance, it is clearly marked on top and on one or more sides with the words ''Live Animals,'' in letters at least 1 inch (2.5 centimeters) high, and with arrows or other markings to indicate the correct upright position of the primary enclosure;
- Any material, treatment, paint, preservative, or other chemical used in or on the enclosure is nontoxic to the bird and not harmful to its health or well-being;
- A bird that has a fractious or stress-prone disposition must be contained in an enclosure that is padded on the top and sides and has protective substrate on the bottom to prevent injury to the bird during transport;
- Proper ventilation must be provided to the birds in accordance with proposed paragraph (b) in § 3.162;
- The primary enclosure has a solid, leak-proof bottom or a removable, leak-proof collection tray. If a mesh or other nonsolid floor is used in the enclosure, it would have to be designed and constructed so that the bird cannot put any part of its body through the holes in the mesh or the openings in the nonsolid floor; and
- If substrate (newspaper, towels, litter, straw, etc.) is used in the primary enclosure, the substrate would have to be clean and made of a suitably absorbent material that is safe and nontoxic to the birds.

These proposed standards would consider the need for birds to be supported and protected from injury during transportation.

Primary Enclosures: Ventilation—Proposed § 3.162(b)

Ventilation is very important to ensure that birds are provided adequate fresh air for their respiratory needs. Therefore, unless the primary enclosure is permanently affixed to the conveyance, there would have to be ventilation openings located on two vertical walls of the primary enclosure that are at least 16 percent of the surface area of each such wall or ventilation openings located on all four walls of the primary enclosure that are at least 8 percent of the total surface area of each such wall. At least one-third of the total minimum area required for ventilation of the primary enclosure would have to be located on the lower one-half of the primary enclosure, and at least one-third of the total minimum area required for ventilation of the primary enclosure must be located on the upper one-half of the primary enclosure. This requirement would be modeled on our existing ventilation requirements for rabbits, which we have found to provide sufficient ventilation for the purposes of humane care.

Unless the primary enclosure is permanently affixed to the conveyance, we would require that projecting rims or other devices be on the exterior of the outside walls with any ventilation openings to prevent obstruction of the ventilation openings. The projecting rims or similar devices would have to be large enough to provide a minimum air circulation space of 0.75 inches (1.9 centimeters) between the primary enclosure and anything the enclosure is adjacent to, unless 90 percent or greater of the surface area of the enclosure wall is open (*e.g.,* cage mesh). We would require that any visually obscuring mesh used to provide security for the bird in the enclosure not interfere with proper ventilation. Again, this requirement is modeled on an existing requirement, found in paragraph (a)(5) of § 3.61 of the regulations, that we have found to be effective.

If a primary enclosure is permanently affixed within the animal cargo space of the primary conveyance so that the front opening is the only source of ventilation for such primary enclosure, the front opening would have to open directly to the outside or to an unobstructed aisle or passageway within the primary conveyance. Such front ventilation opening would have to be at least 90 percent of the total surface area of the front wall of the primary enclosure and covered with bars, wire mesh, or smooth expanded metal.

Primary Enclosures: Cleaning of Primary Enclosures—Proposed § 3.162(c)

Primary enclosures used to hold or transport birds in commerce would have to be cleaned and sanitized before each use in accordance with proposed § 3.158 by the dealer, research facility, exhibitor, or operator of an auction sale.

Primary Enclosures: Compatibility—Proposed § 3.162(d)

Live birds transported in the same primary enclosure would have to be of the same species or compatible species and maintained in compatible groups. Socially dependent birds would have to be able to see and hear each other.

Primary Enclosures: Space and Placement—Proposed § 3.162(e)

We would require that primary enclosures used to transport live birds be large enough to ensure that each bird contained therein has sufficient space to turn about freely and to make normal postural adjustments, except that certain species may be restricted in their movements according to professionally accepted standards when such freedom of movement would constitute a danger to the birds, their handlers, or other persons.

Primary Enclosures: Accompanying Documents and Records—Proposed § 3.162(f)

Documents accompanying the shipment of birds would have to be attached in an easily accessible manner to the outside of a primary enclosure which is part of such shipment and could not be allowed to obstruct ventilation openings.

Primary Conveyances (Motor Vehicle, Rail, Air, and Marine)—Proposed § 3.163

We would require that the animal cargo space of primary conveyances used in transporting live birds be designed, constructed, and maintained in a manner that at all times protects the health and well-being of the animals transported in them, ensures their safety and comfort, and minimizes the entry of exhaust from the primary conveyance during transportation. The animal cargo space would have to have a supply of

air that is sufficient for the normal breathing of all the animals being transported in it, and each primary enclosure containing birds would have to be positioned in the animal cargo space in a manner that provides protection from the elements and that allows each bird enough air for normal breathing. During transportation, we would require that the climatic conditions in the animal cargo area shall be maintained in accordance with the requirements of proposed § 3.168.

We would require that primary enclosures be positioned in the primary conveyance in a manner that allows the birds to be quickly and easily removed from the primary conveyance in an emergency. We would also require that the interior of the bird cargo space be kept clean. Finally, we would provide that live birds may not be transported with any material, substance (*e.g.,* dry ice), or device which may reasonably be expected to be injurious to the health and well-being of the birds unless proper precaution is taken to prevent such injury.

Food and Water Requirements—Proposed § 3.164

All weaned birds would have to be offered food and potable water within 4 hours before being transported in commerce. We would also require all birds transported in their own primary conveyance be provided potable water or other source of hydration to at least every 12 hours after such transportation is initiated, except for birds which, according to professionally accepted standards, require watering or feeding more or less frequently.

All weaned birds would have to be fed at least once in each 24-hour period, except as directed by veterinary treatment, normal fasts, or other professionally accepted standards. Birds that require feeding more or less frequently would have to be fed accordingly.

A sufficient quantity of food and water or other source of hydration would have to accompany the bird to meet its needs for food and water during period of transport, except as directed by veterinary treatment and other professionally accepted standards. Any dealer, research facility, exhibitor, or operator of an auction sale offering any live bird to any carrier or intermediate handler for transportation in commerce would have to securely affix to the outside of the primary enclosure used for transporting the bird written instructions for the in-transit food and water requirements of the bird contained in the enclosure. We would prohibit carriers and intermediate handlers from accepting any live birds for transportation in commerce unless written instructions concerning the food and water requirements of the bird being transported are affixed to the outside of its primary enclosure. The instructions would have to be attached in accordance with proposed § 3.162(f) and in a manner that makes them easy to notice and read.

Care in Transit—Proposed § 3.165

Care in Transit: Surface Transportation (Ground and Water)—Proposed § 3.165(a)

During surface transportation, we would require in § 3.165(a) that any person subject to the AWA regulations transporting birds in commerce must ensure that the operator of the conveyance, or a person accompanying the operator, visually observes the birds as frequently as circumstances may allow, but not less than once every 4 hours, to ensure that the birds are receiving sufficient air for normal breathing, that climatic and environmental conditions are being maintained in accordance with the requirements in proposed § 3.168, and that all other applicable standards are met. The regulated person would have to ensure that the operator or person accompanying the operator determines whether any of the birds are in physical distress and obtains any veterinary care needed for the birds as soon as possible.

Care in Transit: Air Transportation—Proposed § 3.165(b)

Similarly, when transported by air, we would require in § 3.165(b) that live birds be visually observed by the carrier as frequently as circumstances may allow, but not less than once every 4 hours, if the animal cargo space is accessible during flight. If the animal cargo space is not accessible during flight, the carrier would have to visually observe the live birds whenever they are loaded and unloaded and whenever the bird cargo space is otherwise accessible to ensure that they are receiving sufficient air for normal breathing, that climatic and environmental conditions are being maintained in accordance with the requirements in proposed § 3.168, and that all other applicable standards are met. The carrier would have to determine whether any such live birds are in physical distress and arrange for any needed veterinary care as soon as possible.

Care in Transit: Prohibition on the Transport of Ill, Injured, or Distressed Birds—Proposed § 3.165(c)

Finally, in proposed § 3.165(c), we would prohibit any person subject to the AWA regulations from transporting in commerce birds that are ill, injured, or in physical distress, except to receive veterinary care for the condition.

Terminal Facilities—Proposed § 3.166

Terminal Facilities: Placement—Proposed § 3.166(a)

We would require that carriers and intermediate handlers not commingle shipments of live birds with other animals or inanimate cargo in animal holding areas of terminal facilities. This proposed standard would help to ensure that the live birds are accessible and that the following standards concerning cleaning, sanitization, and pest control in terminal facilities are met.

Terminal Facilities: Cleaning, Sanitization, and Pest Control—Proposed § 3.166(b)

We are proposing to require that all animal holding areas of terminal facilities be cleaned and sanitized in a manner prescribed in proposed § 3.158, as often as necessary to prevent an accumulation of debris or excreta and to minimize vermin infestation and disease hazards. Terminal facilities would have to follow an effective program in all animal holding areas for the control of insects, ectoparasites, and other pests.

Terminal Facilities: Ventilation—Proposed § 3.166(c)

We would require that ventilation be provided in any animal holding area in a terminal facility containing birds, by means of windows, doors, vents, or air conditioning. The air would have to be circulated by fans, blowers, or air conditioning so as to minimize drafts, odors, and moisture condensation.

Terminal Facilities: Climactic and Environmental Conditions—Proposed § 3.166(d)

We would require that the climatic and environmental conditions in animal holding areas be maintained in accordance with the proposed performance standard in § 3.168.

Handling—Proposed § 3.167

We are proposing to require that any person subject to the AWA regulations who moves (including loading and unloading) live birds within, to, or from the animal holding area of a terminal facility or a primary conveyance does so as quickly and efficiently as possible and provides sufficient shade to protect the birds from the direct rays of the sun and sufficient protection to allow the birds the option to remain dry during rain, snow, and other precipitation. We would also require that climatic and

environmental conditions be maintained in accordance with the proposed requirements in § 3.168.

We would require that any person handling a primary enclosure containing a live bird uses care and avoids causing physical harm or distress to the bird. We would not allow a primary enclosure containing a live bird to be tossed, dropped, or tilted, or stacked in a manner which may reasonably be expected to result in its falling.

Climatic and Environmental Conditions During Transportation—Proposed § 3.168

Finally, we are proposing to require that the transportation of all live birds be done in a manner that does not cause overheating, excessive cooling, or adverse environmental conditions that could cause discomfort or stress. When climatic or environmental conditions, including temperature, humidity, exposure, ventilation, pressurization, time, or other environmental conditions, or any combination thereof, present a threat to the health or well-being of a live bird, appropriate measures would have to be taken immediately to alleviate the impact of those conditions. The different climatic and environmental factors prevailing during a journey would have to be considered when arranging for the transportation of and when transporting live birds. Considerations may include, but would not be limited to:

- The temperature and humidity level of any enclosure used during transportation of live birds would have to be controlled by adequate ventilation or any other means necessary;
- Appropriate care would have to be taken to ensure that live birds are not subjected to prolonged drafts detrimental to their health or well-being;
- Appropriate care would have to be taken to ensure that live birds are not exposed to direct heat or cold if detrimental to their health or well-being, such as placement in direct sunlight or near a hot radiator; and
- During prolonged air transit stops in local climatic conditions that could produce excessive heat for live birds held in aircraft compartments, the aircraft doors would have to be opened and, if necessary, ground equipment must be used to control the condition of the air within compartments containing live birds.

We would also provide examples of factors to consider when meeting these requirements. Specifically, we would state that, in order to determine what climatic and environmental conditions are appropriate for a live bird, factors such as, but not limited to, the bird's age, species, physiological state, last feeding and watering, and acclimation would have to be considered when such information is available.

Finally, for birds that are not able to maintain a constant body temperature at ambient temperatures, we would require their transportation in a brooder or other temperature-regulating unit that effectively assists the bird in maintaining a constant body temperature during transport. Signs that a bird is able to independently maintain a constant body temperature include the bird's ability to open its eyes fully and sit erect and the appearance of full or partial feathering on the body of the bird.

We would require that the temperature of the brooder or other temperature-regulating unit would have to be monitored during transportation and appropriate for the live bird. Written instructions for the temperature requirements of birds transported in brooders or other temperature-regulating units would have to be securely affixed to the outside of the primary enclosure used for transporting the bird. The instructions would have to be attached in accordance with proposed § 3.162(f) in a manner that makes them easily noticed and read.

We believe the standards we propose in this document would ensure the humane handling, care, treatment, and transportation of birds covered by the AWA.

Executive Orders 12866 and 13563 and Regulatory Flexibility Act

This proposed rule has been determined to be significant for the purposes of Executive Order 12866 and, therefore, has been reviewed by the Office of Management and Budget.

We have prepared an economic analysis for this rule. The economic analysis provides a cost-benefit analysis, as required by Executive Orders 12866 and 13563, which direct agencies to assess all costs and benefits of available regulatory alternatives and, if regulation is necessary, to select regulatory approaches that maximize net benefits (including potential economic, environmental, public health and safety effects, and equity). Executive Order 13563 emphasizes the importance of quantifying both costs and benefits, of reducing costs, of harmonizing rules, and of promoting flexibility. The economic analysis also provides an initial regulatory flexibility analysis that examines the potential economic effects of this rule on small entities, as required by the Regulatory Flexibility Act. The economic analysis is summarized below. Copies of the full analysis are available by contacting the person listed under **FOR FURTHER INFORMATION CONTACT** or on the *Regulations.gov* website (see **ADDRESSES** above for instructions for accessing *Regulations.gov*).

Based on the information we have, there is no reason to conclude that adoption of this proposed rule would result in any significant economic effect on a substantial number of small entities. However, we do not currently have all of the data necessary for a comprehensive analysis of the effects of this proposed rule on small entities. Therefore, we are inviting comments on potential effects. In particular, we are interested in determining the number and kind of small entities that may incur benefits or costs from the implementation of this proposed rule.

We are proposing to establish new regulations and standards and amend existing regulations governing the humane handling, care, treatment, and transportation of birds, other than birds bred for use in research, covered under the Animal Welfare Act. This action would ensure the humane handling, care, treatment, and transportation of birds not bred for use in research covered under the Act. The benefit of this rule would be improved animal welfare because certain birds would be brought under the protection of the AWA. The proposed rule would help ensure the humane handling and care of birds and help ensure that such birds are monitored for their health and humane treatment.

The proposed rule would affect U.S. facilities that handle or maintain birds not bred for use in research that are sold as pets at the wholesale level or at retail if not face-to face, or transported in commerce, or used for exhibition, research, teaching, testing, or experimentation purposes. Facilities affected would include research facilities that use wild-caught birds, breeders and distributors of birds, and exhibitors of birds, as well as carriers and intermediate handlers of birds.[12]

We note that under the current AWA regulations, several licensing exemptions exist that would apply to persons possessing and using birds who are not otherwise required to obtain a license. Retail pet stores, as defined in the regulations and requiring the seller,

[12] Only those research facilities that use wild-caught birds for research, testing, teaching, or experimentation, including activities such as investigations into animal propagation and wildlife ecology, would be subject to the provisions of this proposed rule. Facilities using birds bred for use in research would not be subject to this rule.

buyer, and the animal available for sale be physically present, are exempt from the licensing requirements. Therefore, under this proposed rule, bird breeders who sell pet birds strictly under the conditions of the definition would not be affected. In addition, the current regulations provide an exemption for any person who sells or negotiates the sale or purchase of any animal except wild or exotic animals, dogs, or cats, and who derives no more than $500 gross income from the sale of such animals during any calendar year and is not otherwise required to obtain a license. Exemptions are also provided for any person who maintains four or fewer breeding females and sells only the offspring for pets or exhibition; any person who arranges for transportation or transports animals solely for the purpose of breeding, exhibiting in purebred shows, boarding (not in association with commercial transportation), grooming, or medical treatment, and is not otherwise required to obtain a license; any person who buys, sells, transports, or negotiates the sale, purchase, or transportation of any animals used only for the purposes of food or fiber; any person who maintains eight or fewer animals for exhibition; and any person who buys animals solely for his or her own use or enjoyment and who does not sell or exhibit animals. Under this proposal, these exemptions to licensing would apply to bird breeders and bird exhibitors as well.

Newly regulated entities would be subject to licensing, animal identification, and recordkeeping requirements, as well as standards for facilities and operations, animal health and husbandry, and transportation under this proposed rule. Licensing costs would be incurred by all new licensees. Other costs would depend on the manner and extent to which entities are not currently complying with the basic standards under the AWA. Some of these costs would be one-time costs in the first year, such as providing adequate shelter; others would recur yearly, such as providing adequate veterinary care.

A great deal of uncertainty surrounds the number of facilities that would be affected by this proposed rule. Uncertainty also surrounds the number of those facilities that would need to make structural or operational changes, as well as the extent of such changes. We are seeking public input on those numbers and request any data support for those comments. For the purposes of this analysis, we have estimated that there could be as many as 5,625 new licensees—1,625 newly regulated breeders and distributors and 4,000 newly regulated exhibitors, and as many as 350 new registrants—250 newly regulated research facilities and 100 newly regulated carriers and intermediate handlers. For those new licensees, total new licensing costs could be about $675,000, or about $225,000 annually. We have estimated that the total annualized cost of the recordkeeping and other information collection requirements to be about $4.5 million. If all newly regulated licensees and registrants must develop new contingency planning costs, the total cost could be from about $388,000 to $1.4 million. If all newly regulated dealers and research facilities must develop a new written plan of veterinary care, the total new cost could be about $881,000. Together, annually these costs range from about $3.3 million to $7 million. To the extent that facilities are already keeping records, have already done contingency planning, and have already developed a plan of veterinary care for their birds, these costs could be overestimated.

For example, both the 2011 Guide for Care of Laboratory Animals and the 2010 Guide for the Care of Agricultural Animals in Research (''the Guide'') and the 2010 Guide for the Care of Agricultural Animals in Research and Teaching (''the Ag-Guide'') require contingency planning and emergency preparedness. Research facilities receiving funding from the U.S. Public Health Service (PHS) are required to follow standards of care set forth in the Guide. PHS-funded research facilities that utilize farm animals for biomedical research must follow either the Guide or the Ag-Guide. Research facilities may voluntarily acquire accreditation by the Association for Assessment and Accreditation of Laboratory Animal Care International (AAALAC). AAALAC uses the Guide as the standard when assessing animal care and use programs in the United States. We are seeking comments from the public on the accuracy of these costs and request any data support for those comments.

In addition to those requirements, newly regulated entities would also need to meet regulatory standards for bird identification, performance standards for facilities and operations, health and husbandry, and transportation. However, as acknowledged by a wide spectrum of commenters in listening sessions and during previous APHIS actions, bird dealers and exhibitors are often complying with professionally accepted standards to protect avian health and prevent discomfort and thus maintain their facilities well above the minimum standards of this proposed rule. Many of the proposed regulations are performance based, rather than having specific engineering standards. Therefore, a number of newly regulated entities would not need to make significant structural and/or other operational changes in order to comply with the standards in this proposed rule. Neither the number of entities that would need to make changes nor the extent of those changes is known. Therefore, the overall cost of structural and operational changes that would be incurred due to this rule is also unknown. However, commenters have identified potential costs that could have an impact on regulated activities with birds and the general potential magnitude of those costs are discussed. In addition, APHIS estimates that the public outreach, guidance, and training would cost about $726,000.

TABLE A—POTENTIAL COST CATEGORIES FOR LICENSEES ASSOCIATED WITH THE RULE

[2021 Dollars]

Activity	Certain potential costs
Licensing	$120/3 years.
Recordkeeping and Other Information Collection	20 hours annually; $720/respondent.
Contingency Planning	1 to 2 hours preparation, and 1 hour training; $65 to $226/entity.
Plan of Veterinary Care	$150 per facility, new; $50 per facility for an update.
Other Structural or Operational Changes	
Bird identification	Leg or wing band $0.03–$0.50/each; Microchip $4–$15/each; Microchip reader $60–$375/facility; Labor for banding or microchipping $28–$57; Primary enclosure label <$0.02/bird.

TABLE A—POTENTIAL COST CATEGORIES FOR LICENSEES ASSOCIATED WITH THE RULE—Continued

[2021 Dollars]

Activity	Certain potential costs
Veterinary care, as needed	$46–$350/bird.
Facilities	$57–$114/repair.
Water and Electrical Power	For facility with 20 birds $546 for plumbed water or $90–$300 for bottles; $400–$2,000/generator.
Temperature & Humidity	Brood box thermometer $6–$150/each; Space heating $25–$200.
Ventilation	Hardware cloth $20–$50; Attic fan $50–$200 plus installation; HEPA filter $100–$200.
Shelter	Nest box $57–$114.
Primary enclosures	Commercial enclosures $100 to $1,000/each; Repair or upgrade of existing enclosure $278–$432.
Environment enhancement	$100–$200/enclosure.
Cleaning, sanitation, and pest control	Storage container/shed $150–$1,000; Label maker $20.
Personnel	
Labor (includes other listed activities)	1–10 hours/week; $1,477–$14,768/year.
Training	$45–$75/employee.
Nutrition	Containers $10–$100; Commercial freezer $250–$1,500.
Primary enclosures during transport	Pet crates approved for air travel $60–$350.
Food, water, and health monitoring during transit	Brooder $150–$600.

The majority of businesses potentially affected by this proposed rule are likely to be small entities. As explained, the wide range in potential cost is mainly derived from the uncertainty surrounding the total number of breeders that would need to become licensed as a result of this proposed rule and the number of those newly regulated entities that would then need to make structural or operational changes, as well as from the structural or operational changes that would be chosen to remedy instances of noncompliance.

Executive Order 12372

This program/activity is listed in the Catalog of Federal Domestic Assistance under No. 10.025 and is subject to Executive Order 12372, which requires intergovernmental consultation with State and local officials. (See 2 CFR chapter IV.)

Executive Order 12988

This proposed rule has been reviewed under Executive Order 12988, Civil Justice Reform. It is not intended to have retroactive effect. The Act does not provide administrative procedures which must be exhausted prior to a judicial challenge to the provisions of this rule.

Executive Order 13175

This proposed rule has been reviewed in accordance with the requirements of Executive Order 13175, ''Consultation and Coordination with Indian Tribal Governments.'' Executive Order 13175 requires Federal agencies to consult and coordinate with tribes on a government-to-government basis on policies that have tribal implications, including regulations, legislative comments or proposed legislation, and other policy statements or actions that have substantial direct effects on one or more Indian Tribes, on the relationship between the Federal Government and Indian Tribes or on the distribution of power and responsibilities between the Federal Government and Indian Tribes.

APHIS has determined that this proposed rule, if finalized, may have substantial direct effects on one or more Tribes, and that affording Tribes an opportunity for consultation is therefore warranted. This initial consultation occurred on November 4, 2021. No questions were raised during the consultation, but one participant intended to email a question to APHIS at a future date. A summary of how APHIS incorporated consultation feedback in this rulemaking will be shared with Tribes that participate in consultation and in the next rulemaking iteration, once published. APHIS is committed to full compliance with the provisions of Executive Order 13175.

Paperwork Reduction Act

Many activities resulting from this proposed rule are currently approved under the Office of Management and Budget (OMB) control number 0579–0036; however, 0579–0036 does not capture the respondents or burden described in this proposed rule. Therefore, in accordance with section 3507(d) of the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*), the activities with respondents' burden resulting from this proposed rule that are not covered under 0579–0036, and new activities and their burden associated with this proposed rule, have been submitted to OMB as a new information collection for approval. After a final rule is published, this information collection request will be scheduled for merger into 0579–0036 in the future.

Written comments and recommendations for the proposed information collection should be sent within 60 days of publication of this notice to *www.reginfo.gov/public/do/PRAMain*. Find this particular information collection by selecting ''Currently under 60-day Review—Open for Public Comments'' or by using the search function. Please send a copy of your comments to: (1) Docket No. APHIS–2020–0068, Regulatory Analysis and Development, PPD, APHIS, Station 3A–03.8, 4700 River Road Unit 118, Riverdale, MD 20737–1238, and (2) Clearance Officer, OCIO, USDA, Room 404–W, 14th Street and Independence Avenue SW, Washington, DC 20250.

Administering the AWA requires the use of several information collection activities. The increase in respondents resulting from this proposed rule would result in a corresponding increase in burden for activities currently approved under 0579–0036. In addition to recordkeeping, they include online tools for licensing or registration packets; applications for new license or registration, and updates; filing of a debt collection form and payment of licensing fees; written requests for correction of renewal applications; request for appeals or hearings; requests for pre-licensing inspections;

inspections by licensed veterinarians; written programs of veterinary care for research facilities, exhibitors, or dealers; annual reports of research facilities; health certificates for transport; requests for variance; written guarantees; submission of itineraries of exhibition; complaint submissions; access and inspection of records and property; and creating instituted animal care and use committees.

The proposed changes to the regulations would also result in the creation of new reportable activities. These activities and any additional ones announced in the final rule resulting from public comment will be merged into 0579–0036 in the future after OMB approval. In addition to recordkeeping, information collected includes, but is not limited to, dealers and exhibitors identifying their confined birds using either an enclosure label, leg or wing bands, or transponders. They and research facilities will also be required to develop and document a species-appropriate plan for environment enhancement adequate to promote the psychological well-being of birds. Facilities maintaining enclosed birds will be required to create and document schedules of enclosure cleaning and sanitizing. Consignors will be required to provide carriers and intermediate handlers certification in writing that transported birds were offered food and water, and information about the sender.

These information collection activity requirements provide APHIS with the data necessary for the review and evaluation of program compliance by regulated facilities, and they provide a workable enforcement system to carry out the requirements of the AWA and the intent of Congress.

APHIS expects to solicit feedback from a variety of respondents affected by this proposed rule. They might request and submit licensure or registration packets or other documentation, and include private hobbyists; breeders and other for-profit businesses and farms; not-for-profit institutions such as foundations, refuges, zoos, rehabilitation facilities, as well as educational institutions; and State, local, or Tribal authorities partnering with USDA to enforce these regulations. For wage calculations reported in the information collection request, APHIS used the Bureau of Labor Statistics' Occupational Employment and Wage Statistics to estimate wages, specifically those for government animal health officials, ranchers (SOCC 11–9013), caretakers (SOCC 39–2021), transporters (SOCC 53–7199), and individuals (SOCC 00–0000). More information can be found in the information collection request supporting statement.

We are soliciting comments from the public concerning our proposed information collection and recordkeeping requirements. These comments will help us:

(1) Evaluate whether the proposed information collection is necessary for the proper performance of our agency's functions, including whether the information will have practical utility;

(2) Evaluate the accuracy of our estimate of the burden of the proposed information collection, including the validity of the methodology and assumptions used;

(3) Enhance the quality, utility, and clarity of the information to be collected; and

(4) Minimize the burden of the information collection on those who are to respond (such as through the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology; *e.g.,* permitting electronic submission of responses).

Respondents: Individuals or households; businesses or other for-profit entities; not-for-profit institutions; farms; and State, local, and Tribal governments.

Estimated annual number of respondents: 6,268.

Estimated annual number of responses per respondent: 24.

Estimated annual number of responses: 150,685.

Estimated total annual burden on respondents: 128,298 hours. (Due to averaging, the total annual burden hours may not equal the product of the annual number of responses multiplied by the reporting burden per response.)

A copy of the information collection may be viewed on the *Regulations.gov* website or in our reading room. (A link to *Regulations.gov* and information on the location and hours of the reading room are provided under the heading **ADDRESSES** at the beginning of this proposed rule.) Information about the information collection process may be obtained from Mr. Joseph Moxey, APHIS' Paperwork Reduction Act Coordinator, at (301) 851–2483. APHIS will respond to any information collection-related comments in the final rule. All comments will also become a matter of public record.

E-Government Act Compliance

The Animal and Plant Health Inspection Service is committed to compliance with the E-Government Act to promote the use of the internet and other information technologies, to provide increased opportunities for citizen access to Government information and services, and for other purposes. APHIS estimates that 10 percent of the total responses can be processed electronically. Most of the activities that require forms also require original signatures or the completed forms must accompany the animals they were prepared for; processing them electronically is not feasible. APHIS is working towards making required forms available as fillable PDF format. Certification, accreditation, registration, permits, and other licensing activities and processes currently can be uploaded into DocuSign or eFile information systems, or emailed. Respondents are free to maintain required records as best suited for their organization. Details about specific forms for reportable activities can be found in the information collection request supporting statement.

For assistance with E-Government Act compliance related to this proposed rule, please contact Mr. Joseph Moxey, APHIS' Paperwork Reduction Act Coordinator, at (301) 851–2483, or the person listed under **FOR FURTHER INFORMATION CONTACT**.

List of Subjects

9 CFR Parts 1 and 2

Animal welfare, Pets, Reporting and recordkeeping requirements, Research.

9 CFR Part 3

Animal welfare, Marine mammals, Pets, Reporting and recordkeeping requirements, Research, Transportation.

Accordingly, we propose to amend 9 CFR parts 1, 2, and 3 as follows:

PART 1—DEFINITION OF TERMS

■ 1. The authority citation for part 1 continues to read as follows:

Authority: 7 U.S.C. 2131–2159; 7 CFR 2.22, 2.80, and 371.7.

■ 2. Section 1.1 is amended as follows:
■ a. By adding, in alphabetical order, definitions for ''Bird'' and ''Bred for use in research'';
■ b. By revising the definitions of ''Carrier'', ''Exhibitor'', ''Farm animal'', ''Intermediate handler'', and ''Pet animal'';
■ c. By adding, in alphabetical order, a definition for ''Poultry''; and
■ d. By revising the definitions of ''Retail pet store'' and ''Weaned''.

The additions and revisions read as follows:

§ 1.1 Definitions.

* * * * *

Bird means any member of the class *Aves* (excluding eggs).

Bred for use in research means an animal that is bred in captivity and is being used or is intended for use for research, teaching, testing, or experimentation purposes.

* * * * *

Carrier means the operator of any airline, railroad, motor carrier, shipping line, or other enterprise which is engaged in the business of transporting any animals for hire. Except anyone transporting a migratory bird covered under the Migratory Bird Treaty Act from the wild to a facility for rehabilitation and eventual release in the wild, or between rehabilitation facilities, and has obtained authorization from the U.S. Fish and Wildlife Service for that purpose, is not a ''carrier''.

* * * * *

Exhibitor means any person (public or private) exhibiting any animals, which were purchased in commerce or the intended distribution of which affects commerce, or will affect commerce, to the public for compensation, as determined by the Secretary. This term includes carnivals, circuses, animal acts (including free-flighted bird shows), zoos, and educational exhibits, exhibiting such animals whether operated for profit or not. This term excludes retail pet stores, horse, dog, and pigeon races, an owner of a common, domesticated household pet who derives less than a substantial portion of income from a nonprimary source (as determined by the Secretary) for exhibiting an animal that exclusively resides at the residence of the pet owner, organizations sponsoring and all persons participating in State and country fairs, livestock shows, rodeos, field trials, coursing events, purebred dog and cat shows, bird fancier shows, and any other fairs or exhibitions intended to advance agricultural arts and sciences, as may be determined by the Secretary.

* * * * *

Farm animal means any domestic species of cattle, sheep, swine, goats, llamas, horses, or poultry, which are normally and have historically been kept and raised on farms in the United States and used or intended for use as food or fiber, or for improving animal nutrition, breeding, management, or production efficiency, or for improving the quality of food or fiber. This term also includes animals such as rabbits, mink, chinchilla, and ratites when they are used solely for purposes of meat, fur, feathers, or skins, and animals such as horses and llamas when used solely as work and pack animals.

* * * * *

Intermediate handler means any person, including a department, agency, or instrumentality of the United States or of any State or local government (other than a dealer, research facility, exhibitor, any person excluded from the definition of a dealer, research facility, or exhibitor, an operator of an auction sale, or a carrier), who is engaged in any business in which he receives custody of animals in connection with their transportation in commerce. Except anyone transporting a migratory bird covered under the Migratory Bird Treaty Act from the wild to a facility for rehabilitation and eventual release in the wild, or between rehabilitation facilities, and has obtained authorization from the U.S. Fish and Wildlife Service for that purpose, is not an ''intermediate handler''.

* * * * *

Pet animal means any animal that has commonly been kept as a pet in family households in the United States, such as dogs, cats, guinea pigs, rabbits, hamsters, and birds. This term also includes but is not limited to such birds as parrots, canaries, cockatiels, lovebirds, and budgerigar parakeets. This term excludes exotic animals and wild animals.

* * * * *

Poultry means any species of chickens, turkeys, swans, partridges, guinea fowl, and pea fowl; ducks, geese, pigeons, and doves; grouse, pheasants, and quail.

* * * * *

Retail pet store means a place of business or residence at which the seller, buyer, and the animal available for sale are physically present so that every buyer may personally observe the animal prior to purchasing and/or taking custody of that animal after purchase, and where only the following animals are sold or offered for sale, at retail, for use as pets: Dogs, cats, rabbits, guinea pigs, hamsters, gerbils, rats, mice, gophers, chinchillas, domesticated ferrets, domesticated farm-type animals, birds, and coldblooded species. Such definition excludes—

(1) Establishments or persons who deal in dogs used for hunting, security, or breeding purposes;

(2) Establishments or persons exhibiting, selling, or offering to exhibit or sell any wild or exotic or other nonpet species of warmblooded animals such as skunks, raccoons, nonhuman primates, squirrels, ocelots, foxes, coyotes, etc.;

(3) Any establishment or person selling warmblooded animals (except laboratory rats and mice) for research or exhibition purposes;

(4) Any establishment wholesaling any animals (except rats and mice); and

(5) Any establishment exhibiting pet animals in a room that is separate from or adjacent to the retail pet store, or in an outside area, or anywhere off the retail pet store premises.

* * * * *

Weaned means that a mammal has become accustomed to take solid food and has so done, without nursing, for a period of at least 5 consecutive days; or that a bird has become accustomed to take food and has so done, without supplemental feeding from a parent or human caretaker, for a period of at least 5 consecutive days. Signs that an animal has become accustomed to take food include the animal's ability to maintain a constant body weight during those 5 days.

* * * * *

PART 2—REGULATIONS

■ 3. The authority citation for part 2 continues to read as follows:

Authority: 7 U.S.C. 2131–2159; 7 CFR 2.22, 2.80, and 371.7.

■ 4. Section 2.1 is amended as follows:
■ a. In paragraph (a)(3)(vi), by adding '', feathers,'' after the word ''food''; and
■ b. In paragraph (b)(2)(ii), by removing the words ''subparts A through F'' in the first sentence and adding the words ''subparts A through G'' in their place and revising the last sentence.

The revision reads as follows:

§ 2.1 Requirements and application.

* * * * *

(b) * * *

(2) * * *

(ii) * * * A licensee must obtain a new license before using any animal beyond those types or numbers of animals authorized under the existing license. Notwithstanding these provisions, a licensee in possession of birds on [*Effective date of final rule*], may continue to operate under that license until its scheduled expiration date. APHIS encourages such persons to apply for a new license at least 90 days before expiration of the current one.

* * * * *

§ 2.31 [Amended]

■ 5. In § 2.31, paragraph (d)(1)(ix) is amended as follows:
■ a. In the third sentence, by removing the word ''non-rodents'' and adding the words ''animals, other than rodents and birds,'' in its place; and
■ b. In the fourth sentence, by adding the words ''and birds'' after the word ''rodents''.

■ 6. In § 2.50, paragraph (e) is amended as follows:

■ a. By redesignating paragraphs (e)(2) and (3) as paragraphs (e)(3) and (4), respectively, and adding a new paragraph (e)(2); and
■ b. In newly redesignated paragraph (e)(3) introductory text, by removing the words ''dogs or cats'' and adding the words ''dogs, cats, or birds'' in their place.

The addition reads as follows:

§ 2.50 Time and method of identification.

* * * * *

(e) * * *

(2) When one or more birds are confined in a primary enclosure, the bird shall be identified by:

(i) A label attached to the primary enclosure which shall bear a description of the birds in the primary enclosure, including:

(A) The number of birds;

(B) The species of the birds;

(C) Any distinctive physical features of the birds; and

(D) Any identifying marks on the birds; or

(ii) A leg or wing band applied to each bird in the primary enclosure by the dealer or exhibitor that individually identifies each bird by description or number; or

(iii) A transponder (microchip) placed in a standard anatomical location for the species in accordance with professionally accepted standards, provided that the receiving facility has a compatible transponder (microchip) reader that is capable of reading the transponder (microchip) and that the reader is readily available for use by an APHIS official and/or facility employee accompanying the APHIS official.

* * * * *

■ 7. In § 2.75, paragraph (b)(1) introductory text is amended by revising the last sentence to read as follows:

§ 2.75 Records: Dealers and exhibitors.

* * * * *

(b)(1) * * * The records shall include any offspring born or hatched of any animal while in his or her possession or under his or her control.

* * * * *

■ 8. In § 2.76, paragraph (a)(7) is revised to read as follows:

§ 2.76 Records: Operators of auction sales and brokers.

(a) * * *

(7) A description of the animal which shall include:

(i) The species and the breed or type of animal;

(ii) The sex of the animal; or if the animal is a bird, only if the sex is readily determinable;

(iii) The date of birth or hatch date; or, if unknown, the approximate age or developmental stage; and

(iv) The color and any distinctive markings; and

* * * * *

PART 3—STANDARDS

■ 9. The authority citation for part 3 continues to read as follows:

Authority: 7 U.S.C. 2131–2159; 7 CFR 2.22, 2.80, and 371.7.

■ 10. The heading for subpart F is revised to read as follows:

Subpart F—Specifications for the Humane Handling, Care, Treatment, and Transportation of Warmblooded Animals Other Than Dogs, Cats, Rabbits, Hamsters, Guinea Pigs, Nonhuman Primates, Marine Mammals, and Birds

■ 11. Subpart G, consisting of §§ 3.150 through 3.168, is added to read as follows:

Subpart G—Specifications for the Humane Handling, Care, Treatment, and Transportation of Birds

Sec.

Facilities and Operating Standards

Animal Health and Husbandry Standards

Transportation Standards

Subpart G—Specifications for the Humane Handling, Care, Treatment, and Transportation of Birds

Facilities and Operating Standards

§ 3.150 Facilities, general.

(a) *Structure; construction.* Housing facilities for birds must be designed and constructed so that they are structurally sound for the species of bird housed in them. They must be kept in good repair, protect the birds from injury, and restrict other animals from entering. Housing facilities must employ security measures that contain all birds securely. Such measures may include safety doors, entry/exit doors to the primary enclosure that are double-door, or other equivalent systems designed to prevent escape of the birds. Birds that are flight-restricted or cannot fly and are allowed to roam free within the housing facility or a portion thereof must have access to safety pens, enclosures, or other areas that offer the birds protection during overnight periods and at times when their activities are not monitored.

(b) *Condition and site.* Housing facilities and areas used for storing animal food or bedding must be free of any accumulation of trash, waste material, other discarded materials, junk, weeds, and brush. Housing facilities must be kept neat and free of clutter, including equipment, furniture, and stored material, but may contain materials actually used and necessary for cleaning the area, and fixtures or equipment necessary for proper husbandry practices or research needs.

(c) *Surfaces.* The surfaces of housing facilities must be constructed in a manner and made of materials that allow them to be readily cleaned and/or sanitized, or removed and replaced when worn or soiled. Interior surfaces and surfaces that come in contact with birds must be:

(1) Nontoxic to the bird;

(2) Free of rust or damage that affects the structural integrity of the surface or prevents cleaning; and

(3) Free of jagged edges or sharp points that could injure the birds.

(d) *Water and electric power.* The facility must have reliable electric power adequate for heating, cooling, ventilation, and lighting, and for carrying out other husbandry requirements in accordance with the regulations in this subpart. The facility must provide adequate potable water for the birds' drinking needs and adequate water for cleaning and carrying out other husbandry requirements.

(e) *Storage.* Supplies of food, including food supplements, bedding, and substrate must be stored in a manner that protects the supplies from spoilage, contamination, and vermin infestation. The supplies must be stored off the floor and away from the walls, to allow cleaning underneath and around the supplies. All food must be stored at appropriate temperatures and in a manner that prevents contamination and deterioration of its

nutritive value. Food must not be used beyond its shelf-life date or expiration date listed on the label. All open supplies of food and bedding must be kept in waterproof containers with tightly fitting lids to prevent deterioration and contamination, except for live, frozen, or refrigerated food. Live food must be maintained in a manner to ensure wholesomeness. Substances such as cleaning supplies and disinfectants that are harmful to the birds but that are required for normal husbandry practices must not be stored in food storage and preparation areas but may be stored in cabinets in the animal areas, provided that they are stored in properly labeled containers that are adequately secured to prevent potential harm to the birds. Animal waste and dead animals and animal parts not intended for food must not be kept in food storage or food preparation areas, food freezers, food refrigerators, and animal areas.

(f) *Waste disposal.* Housing facility operators must provide for regular and frequent collection, removal, and disposal of animal and food wastes, substrate, dead animals, debris, garbage, water, and any other fluids and wastes, in a manner that minimizes contamination and disease risk. Trash containers in housing facilities and in food storage and preparation areas must be leakproof and have tightly fitted lids.

(g) *Drainage.* Housing facilities must be equipped with disposal and drainage systems that are constructed and operated so that animal wastes and water, except for water located in pools or other aquatic areas (*e.g.,* ponds, waterfalls, fountains, and other water features), are rapidly eliminated so the animals have the option of remaining dry. Pools and other aquatic areas must be maintained in accordance with the regulations in § 3.157. Disposal and drainage systems must minimize vermin and pest infestation, insects, odors, and disease hazards. All drains must be properly constructed, installed, and maintained so that they effectively drain water. If closed drainage systems are used, they must be equipped with traps and prevent the backflow of gases and the backup of sewage. If the facility uses sump ponds, settlement ponds, or other similar systems for drainage and animal waste disposal, the system must be located a sufficient distance from the bird area of the housing facility to prevent odors, diseases, insects, pests, and vermin infestation in the bird area. If drip or constant flow watering devices are used to provide water to the animals, excess water must be rapidly drained out of the animal areas by gutters or pipes so that animals have the option of remaining dry.

(h) *Toilets, washrooms, and sinks.* Toilets and washing facilities such as washrooms, basins, sinks, or showers must be provided for animal caretakers and must be readily accessible.

§ 3.151 Facilities, indoor.

(a) *Temperature and humidity.* The air temperature and, if present, pool or other aquatic area (*e.g.,* ponds, waterfalls, fountains, and other water features), and air humidity levels in indoor facilities must be sufficiently regulated and appropriate to bird species to protect the birds from detrimental temperature and humidity levels, to provide for their health and well-being, and to prevent discomfort or distress, in accordance with current professionally accepted standards. Prescribed temperature and humidity levels must be part of the written program of veterinary care or part of the full-time veterinarian's records.

(b) *Ventilation.* Indoor housing facilities must be sufficiently ventilated at all times when birds are present to provide for their health, to prevent their discomfort or distress, accumulations of moisture condensation, odors, and levels of ammonia, chlorine, and other noxious gases. The ventilation system must minimize drafts.

(c) *Lighting.* Indoor housing facilities must have lighting, by natural or artificial means, or both, of appropriate quality, distribution, and duration for the species of birds involved. Such lighting must be sufficient to permit routine inspection and cleaning. Lighting of primary enclosures must be designed to protect the birds from excessive illumination that may cause discomfort or distress.

(d) *Indoor pool or other aquatic areas.* Indoor pools or other aquatic areas (*e.g.,* ponds, waterfalls, fountains, and other water features) must have sufficient vertical air space above the pool or other aquatic area to allow for behaviors typical to the species of bird under consideration. Such behaviors may include, but are not limited to, diving and swimming.

§ 3.152 Facilities, outdoor.

(a) *Acclimation.* Birds may not be housed in outdoor facilities unless the air humidity and temperature ranges and, if applicable, pool or other aquatic area (*e.g.,* ponds, waterfalls, fountains, and other water features) temperature ranges do not adversely affect bird health and comfort. Birds may not be introduced to an outdoor housing facility until they are acclimated to the ambient temperature and humidity and, if applicable, pool or other aquatic area temperature range which they will encounter therein.

(b) *Shelter from inclement weather.* Outdoor housing facilities must provide adequate shelter, appropriate to the species and physical condition of the birds, for the local climatic conditions to protect the birds from any adverse weather conditions. Shelters must be adequately ventilated in hot weather and have one or more separate areas of shade or other effective protection that is large enough to comfortably contain all the birds at one time and prevent their discomfort from direct sunlight, precipitation, or wind. Shelter must also be constructed to provide sufficient space to comfortably hold all of the birds at the same time without adverse intraspecific aggression or grouping of incompatible birds. For birds that form dominance hierarchies and that are maintained in social groupings, shelter(s) must be constructed so as to provide sufficient space to comfortably hold all the birds at the same time, including birds that are low in the hierarchy.

§ 3.153 Primary enclosures.

(a) *General requirements.* Primary enclosures must be designed and constructed of suitable materials so that they are structurally sound. The primary enclosures must be kept in good repair.

(1) Primary enclosures must be constructed and maintained so that they:

(i) Have no sharp points or edges that could injure the birds;

(ii) Protect the birds from injury;

(iii) Contain the birds securely;

(iv) Restrict other animals from entering the enclosure;

(v) Ensure that birds have the option to remain dry and clean;

(vi) Provide shelter and protection for each bird from climatic and environmental conditions that may be detrimental to its health and well-being;

(vii) Provide sufficient shade to comfortably shelter all birds housed in the primary enclosure at one time, including low ranking birds that are maintained in social groupings that form dominance hierarchies;

(viii) Provide all the birds with easy and convenient access to clean food and potable water;

(ix) Ensure that all surfaces in contact with the birds may be readily cleaned and/or sanitized in accordance with § 3.158 or be replaced when worn or soiled; and

(x) Have floors that are constructed in a manner that protects the birds' feet and legs from injury. If flooring material is suspended, it must be sufficiently taut to prevent excessive sagging under the

bird's weight. If substrate is used in the primary enclosure, the substrate must be clean and made of a suitably absorbent material that is safe and nontoxic to the birds.

(2) Furniture-type objects, such as perches and other objects that enrich a bird's environment, must be species-appropriate and be designed, constructed, and maintained so as to prevent harm to the bird. If the enclosure houses birds that rest by perching, there must be perches available that are appropriate to the age and species of birds housed therein and a sufficient number of perches of appropriate size, shape, strength, texture, and placement to comfortably hold all the birds in the primary enclosure at the same time, including birds that are ranked low in a dominance hierarchy.

(3) Primary enclosures that are adjacent to one another or that share a common side with another enclosure must be suitably screened from each other or kept at a sufficient distance apart in order to prevent injury of the occupants due to predation, territorial disputes, or aggression.

(b) *Space requirements.* Primary enclosures must be constructed and maintained so as to allow each bird to make normal postural and social adjustments, such as dust-bathing and foraging, with adequate freedom of movement and freedom to escape from aggression demonstrated by other animals in the enclosure according to the program of veterinary care developed, documented in writing, and signed by the attending veterinarian. Both part-time and full-time attending veterinarians at a facility must document and maintain a record that the space in all enclosures housing birds are adequate and allow for normal postural and social adjustments. Inadequate space may be indicated by evidence of malnutrition, poor condition, debility, stress, or abnormal behavior patterns. The normal postural and social adjustments of a bird may be restricted:

(1) When the attending veterinarian determines that making species-typical postural or social adjustments, such as dust-bathing, foraging, or running, would be detrimental to the bird's good health and well-being. The attending veterinarian must document the reason and recommended duration for the restriction and make such records available for review by an APHIS inspector.

(2) When the birds are tethered in accordance with current professionally accepted standards. Birds must not be tethered unless:

(i) It is appropriate for the species of bird;

(ii) It will not cause harm to the birds;

(iii) The birds are maintained on perches appropriate for the species and age of the bird while tethered;

(iv) The birds have sufficient space to fully extend their wings without obstruction; and

(v) The tether does not entangle the birds.

(3) When dealers, exhibitors, and research facilities breed or intend to breed their birds, such birds must be provided with structures and/or materials that meet the reproductive needs of the species during the appropriate season or time periods. A sufficient number of structures and materials must be provided to meet the needs of all breeding birds in an enclosure and to minimize aggression.

(4) Birds intended for breeding sale, in need of medical care, exhibited in traveling exhibits, or traveling for other reasons must be kept in enclosures that, at minimum, meet the individual specific space, safety, bedding, perch, and physical environment (including, but not limited to, temperature, humidity, sun and wind exposure) requirements for transport enclosures as specified in § 3.162. At all other times, birds must be housed in enclosures that meet the space requirements of this section.

(c) *Special space requirements for wading and aquatic birds.* Primary enclosures housing wading and aquatic birds must contain a pool or other aquatic area (*e.g.,* ponds, waterfalls, fountains, and other water features) and a dry area that allows easy ingress or egress of the pool or other aquatic area. Pools and other aquatic areas must be of sufficient surface area and depth to allow each bird to make normal postural and social adjustments, such as immersion, bathing, swimming, and foraging, with adequate freedom of movement and freedom to escape from aggression demonstrated by other birds in the enclosure. Dry areas must be of sufficient size to allow each bird to make normal postural and social adjustments with adequate freedom of movement and freedom to escape from aggression demonstrated by other birds in the enclosure. Inadequate space may be indicated by evidence of malnutrition, poor condition, debility, stress, or abnormal behavior patterns.

§ 3.154 Environment enhancement to promote psychological well-being.

Dealers, exhibitors, and research facilities must develop, document, and follow a species-appropriate plan for environment enhancement adequate to promote the psychological well-being of birds. The plan is part of the required program of veterinary care and must be approved by a veterinarian and must be in accordance with the regulations in this subpart and with currently accepted professional standards. This plan must be made available to APHIS upon request, and, in the case of research facilities, to officials of any pertinent funding agency. The plan, at a minimum, must address each of the following:

(a) *Social grouping.* The environment enhancement plan must include specific provisions to address the social needs of species of birds known to exist in social groups in nature. Such specific provisions must be in accordance with currently accepted professional standards. The plan may provide for the following exceptions:

(1) If a bird exhibits vicious or overly aggressive behavior, or is debilitated as a result of age or other conditions (*e.g.,* arthritis), it can be housed separately if approved by the veterinarian;

(2) Additionally, birds that have or are suspected of having a contagious disease must be isolated from healthy animals in the colony as directed by the attending veterinarian. When an entire group or room of birds is known to have been or believed to be exposed to an infectious agent, the group may be kept intact during the process of diagnosis, treatment, and control.

(3) Birds may not be housed with other species of birds or animals unless they are compatible, do not prevent access to food, water, or shelter by individual animals, and are not known to be hazardous to the health and well-being of each other. Compatibility of birds must be determined in accordance with generally accepted professional practices and actual observations by the attending veterinarian during his or her regularly scheduled visits to the facility. Individually housed social species of birds must be able to see and hear birds of their own or compatible species unless the attending veterinarian determines that it would endanger their health, safety, or well-being.

(b) *Environmental enrichment.* The physical environment in the primary enclosures must be enriched by materials or activities that would provide the birds with the means to express noninjurious species-typical activities. Species differences should be considered when determining the type or methods of enrichment. Examples of environmental enrichments include providing perches, swings, mirrors, and other increased cage complexities; providing objects to manipulate; varied food items; using foraging or task-

oriented feeding methods; and providing interaction with the care giver or other familiar and knowledgeable person consistent with personnel safety precautions.

(c) *Special considerations.* Certain birds must be provided special attention regarding enhancement of their environment, based on the needs of the individual species and in accordance with the instructions of the attending veterinarian. Birds requiring special attention are the following:

(1) Infants and young juveniles;

(2) Those that show signs of being in psychological distress through behavior or appearance;

(3) Those used in research for which the Institutional Animal Care and Use Committee (IACUC)-approved protocol requires restricted activity; and

(4) Individually housed social species of birds that are unable to see and hear birds of their own or compatible species.

(d) *Restraint devices.* Birds must not be permitted to be maintained in restraint devices unless required for health reasons as determined by the attending veterinarian or by a research proposal approved by the IACUC at research facilities. Any restraining actions must be for the shortest period possible. If the bird is to be restrained for more than 12 hours, it must be provided the opportunity daily for unrestrained activity for at least 1 continuous hour during the period of restraint, unless continuous restraint is required by the research proposal approved by the IACUC at research facilities.

(e) *Exemptions.* (1) The attending veterinarian may exempt an individual bird from participation in the environment enhancement plan because of its health or condition, or in consideration of its well-being. The basis of the exemption must be recorded by the attending veterinarian for each exempted bird. Unless the basis for the exemption is a permanent condition, the exemption must be reviewed at least every 30 days by the attending veterinarian.

(2) For a research facility, the IACUC may exempt an individual bird from participation in some or all of the otherwise required environment enhancement plans for scientific reasons set forth in the research proposal. The basis of the exemption shall be documented in the approved proposal and must be reviewed at appropriate intervals as determined by the IACUC, but not less than annually.

(3) Records of any exemptions must be maintained by the dealer, exhibitor, or research facility for at least 1 year in accordance with § 2.80 of this subchapter and must be made available to APHIS upon request, and, in the case of research facilities, to officials of any pertinent funding agency.

Animal Health and Husbandry Standards

§ 3.155 Feeding.

(a) The diet for birds must be appropriate for the species, size, age, and condition of the bird. The food must be wholesome, palatable to the birds, and free of contamination. It must be of sufficient quantity and nutritive value to maintain a healthy condition and weight range of the bird and to meet its normal daily nutritional requirements. Birds must be fed at least once a day except as directed by the attending veterinarian. If birds are maintained in group housing, measures appropriate for the species must be taken to ensure that all the birds receive a sufficient quantity of food.

(b) Food and, if used, food receptacles must be readily accessible to all the birds being fed. Food and any food receptacles must be located so as to minimize any risk of contamination by excreta, precipitation, and pests. Food receptacles and feeding areas must be kept clean and sanitized in accordance with § 3.158. Used food receptacles must be cleaned and sanitized before they can be used to provide food to birds maintained in a separate enclosure. Measures must be taken to ensure there is no molding, deterioration, contamination, or caking or undesirable wetting or freezing of food within or on food receptacles. Food receptacles must be made of a durable material that can be easily cleaned and sanitized or be replaceable when worn or soiled. Group-housed birds must have multiple food receptacles where needed to ensure that all birds have access to sufficient feed.

§ 3.156 Watering.

Potable water must be provided in sufficient quantity to every bird housed at the facility, unless restricted by the attending veterinarian. If potable water is not continually available to the birds, it must be offered to them as often as necessary to ensure their health and well-being. Water receptacles must be kept clean and sanitized in accordance with § 3.158 as often as necessary to keep them clean and free of contamination. Used water receptacles must be cleaned and sanitized before they may be used to provide water to birds maintained in a separate enclosure. Group-housed birds must have multiple water receptacles where needed to ensure that all birds have access to sufficient water.

§ 3.157 Water quality.

(a) The primary enclosure or any other area in which birds may enter must not contain pools or other aquatic areas (*e.g.,* ponds, waterfalls, fountains, and other water features) that are detrimental to the health of the birds contained therein.

(1) Particulate animal and food waste, trash, or debris that enters the pool or other aquatic area must be removed as often as necessary to maintain the required water quality and minimize health hazards to the birds.

(2) Pools or other aquatic areas with drainage systems must provide adequate drainage and must be located so that all of the water contained in such pools or other aquatic areas may be effectively eliminated when necessary for cleaning the pool or other aquatic area or for other purposes. Pools or other aquatic areas without drainage systems must be aerated and have an incoming flow of fresh water or be managed in a manner that maintains appropriate water quality in accordance with current professionally accepted standards appropriate for the species.

(b) When the water is chemically treated, the chemicals must be added in a manner that does not cause harm, discomfort, or distress to the animals. Should birds appear to be harmed by water quality, appropriate action must be taken immediately.

(c) Pools and other aquatic areas must be salinized for birds that require such water for their good health and well-being in accordance with current professionally accepted standards.

§ 3.158 Cleaning, sanitization, housekeeping, and pest control.

(a) *Cleaning.* (1) Excreta and food waste must be removed from primary enclosures and from under and around primary enclosures as often as necessary to prevent excessive accumulation of feces and food waste, to prevent soiling of the birds contained in the primary enclosures, and to reduce disease hazards, insects, pests, and odors. When steam or water is used to clean primary enclosures, measures must be taken to protect birds from being harmed, wetted involuntarily, or distressed in the process. Standing water, except for such water in pools or other aquatic areas (*e.g.,* ponds, waterfalls, fountains, and other water features), must be removed from the primary enclosure.

(2) Scheduled cleaning may be modified or delayed during breeding, egg-sitting, or feeding of chicks for birds that are easily disrupted during such

behaviors. Scheduled cleaning must resume when such cleaning no longer disrupts breeding, egg-sitting, or feeding of chicks. A schedule of cleaning must be documented and must include when breeding season began, when the primary enclosure was last cleaned, and when cleaning is expected to resume. Such records must be available for review by an APHIS inspector.

(b) *Sanitization.* (1) Primary enclosures and food and water receptacles for birds must be sanitized as often as necessary to prevent accumulation of dirt, debris, food waste, excreta, and other disease hazards. *Provided, however,* that sanitization may be modified or delayed during breeding, egg-sitting, or feeding of chicks for those birds that are easily disrupted during such behaviors. Sanitization must resume when such activity no longer disrupts breeding, egg-sitting, or feeding of chicks. A schedule of sanitization must be documented that includes when breeding season began, when the primary enclosure was last sanitized, and when sanitization is expected to resume. Such records must be available for review by an APHIS inspector.

(2) The hard surfaces of primary enclosures and food and water areas and equipment must be sanitized before a new bird is brought into a housing facility or if there is evidence of infectious disease among the birds in the housing facility.

(3) Primary enclosures using materials that cannot be sanitized using conventional methods, such as gravel, sand, grass, earth, planted areas, or absorbent bedding, must be sanitized by removing all contaminated material as necessary or by establishing a natural composting and decomposition system that is sufficient to prevent wasted food accumulation, odors, disease, pests, insects, and vermin infestation.

(c) *Housekeeping for premises.* Premises where housing facilities are located, including buildings, surrounding grounds, and exhibit areas, must be kept clean and in good repair in order to protect the birds from injury and disease, to facilitate the husbandry practices required in this subpart, and to reduce or eliminate breeding and living areas for rodents, pests, and vermin. Premises must be kept free of accumulations of trash, junk, waste products, and discarded matter. Weeds, grasses, and bushes must be controlled so as to facilitate cleaning of the premises and pest control, and to protect the health and well-being of the birds.

(d) *Pest control.* A safe and effective program for the control of insects, ectoparasites, and avian and mammalian pests must be established and maintained so as to promote the health and well-being of the birds and reduce contamination by pests in animal areas. Insecticides, chemical agents, or other pest control products that may be harmful to the birds must not be applied to primary enclosures and other bird contact surfaces unless the application is consistent with manufacturer recommendations or otherwise approved for use and does not harm birds.

§ 3.159 Employees.

A sufficient number of adequately trained employees or attendants must be utilized to maintain the professionally acceptable level of husbandry and handling practices set forth in this subpart. Such practices must be conducted under the supervision of a bird caretaker who has appropriate experience in the husbandry and care of birds that are being managed in a given setting.

§ 3.160 Compatibility and separation.

(a) Socially dependent birds, such as clutch-mates, must be housed in social groups, except where the attending veterinarian exempts an individual bird because of its health or condition, or in consideration of its well-being, or for specific management needs, or where such social grouping is not in accordance with a research proposal and the proposal has been approved by the research facility IACUC.

(b) Birds may not be housed with other animals, including members of their own species, unless they are compatible, do not prevent access to food, water, or shelter by individual animals, and are not known to be hazardous to the health and well-being of each other. Compatibility must be determined in accordance with generally accepted professional practices and by actual observations to ensure that the birds are, in fact, compatible.

(c) Birds that have or are suspected of having a contagious disease or communicable condition must be separated from healthy animals that are susceptible to the disease as directed by the attending veterinarian.

Transportation Standards

§ 3.161 Consignments to carriers and intermediate handlers.

(a) Carriers and intermediate handlers must not accept a live bird for transport in commerce more than 4 hours before the scheduled departure time of the primary conveyance on which the animal is to be transported. However, a carrier or intermediate handler may agree with anyone consigning a bird to extend this time by up to 2 hours if specific prior scheduling of the animal shipment to a destination has been made, provided that the extension is not detrimental to the health and well-being of the bird as determined by the consignor.

(b) Carriers and intermediate handlers must not accept a live bird for transport in commerce unless they are provided with the name, address, and telephone number of the consignee.

(c) Carriers and intermediate handlers must not accept a live bird for transport in commerce unless the consignor certifies in writing to the carrier or intermediate handler that the bird was offered food and water during the 4 hours prior to delivery to the carrier or intermediate handler; provision for unweaned birds is made in paragraph (g) of this section. The certification must be securely attached to the outside of the primary enclosure in a manner that makes it easy to notice and read. The certification must include the following information for each live bird:

(1) The consignor's name, address, telephone number, and email address;

(2) The number of birds;

(3) The species or common names of the birds;

(4) The time and date the bird was last fed and watered and the specific instructions for the next feeding(s) and watering(s) for a 24-hour period; and

(5) The consignor's signature and the date and time the certification was signed.

(d) Carriers and intermediate handlers must not accept a live bird for transport in commerce unless the primary enclosure in which the birds are contained meets the requirements of § 3.162. A carrier or intermediate handler must not accept a live bird for transport if the primary enclosure is defective or damaged and cannot be expected to contain the bird safely and comfortably.

(e) Carriers and intermediate handlers shall not accept a live bird for transport in commerce unless their animal holding area maintains climatic and environmental conditions in accordance with the requirements of § 3.168.

(f) Carriers and intermediate handlers must attempt to notify the consignee at least once in every 6-hour period following the arrival of any live birds at the bird holding area of the terminal cargo facility. The time, date, and method of each attempted notification and the final notification to the consignee and the name of the person notifying the consignee must be recorded on the copy of the shipping

document retained by the carrier or intermediate handler and on a copy of the shipping document accompanying the bird shipment.

(g) Carriers and intermediate handlers must not accept unweaned birds for transport unless transport instructions are specified as a part of the consignee's program of veterinary care.

§ 3.162 Primary enclosures used to transport live birds.

Any person subject to the Animal Welfare regulations (parts 1, 2, and 3 of this subchapter) must not transport or deliver for transport in commerce a bird unless the following requirements are met:

(a) *Construction of primary enclosures.* The bird must be contained in a primary enclosure such as a compartment, transport cage, carton, or crate. Primary enclosures used to transport birds must be constructed so that:

(1) The primary enclosure is strong enough to contain the bird securely and comfortably and to withstand the normal rigors of transportation;

(2) The interior of the enclosure has no sharp points or edges and no protrusions that could injure the bird contained therein;

(3) The bird is at all times securely contained within the enclosure and cannot put any part of its body outside the enclosure in a way that could result in injury to itself, to handlers, or to other persons or to animals nearby;

(4) The bird can be easily and quickly removed from the enclosure in an emergency;

(5) Unless the enclosure is permanently affixed to the conveyance, adequate handholds or other devices such as handles are provided on its exterior, and enable the enclosure to be lifted without tilting it, and ensure that anyone handling the enclosure will not be in contact with the bird contained inside;

(6) Unless the enclosure is permanently affixed to the conveyance, it is clearly marked on top and on one or more sides with the words ''Live Animals,'' in letters at least 1 inch (2.5 centimeters) high, and with arrows or other markings to indicate the correct upright position of the primary enclosure;

(7) Any material, treatment, paint, preservative, or other chemical used in or on the enclosure is nontoxic to the bird and not harmful to its health or well-being;

(8) A bird that has a fractious or stress-prone disposition must be contained in an enclosure that is padded on the top and sides and has protective substrate on the bottom to prevent injury to the bird during transport;

(9) Proper ventilation is provided to the animal in accordance with paragraph (b) of this section; and

(10) The primary enclosure has a solid, leak-proof bottom or a removable, leak-proof collection tray. If a mesh or other nonsolid floor is used in the enclosure, it must be designed and constructed so that the bird cannot put any part of its body through the holes in the mesh or the openings in the nonsolid floor. If substrate (newspaper, towels, litter, straw, etc.) is used in the primary enclosure, the substrate must be clean and made of a suitably absorbent material that is safe and nontoxic to the birds.

(b) *Ventilation.* (1) Unless the primary enclosure is permanently affixed to the conveyance, there must be ventilation openings located on two vertical walls of the primary enclosure that are at least 16 percent of the surface area of each such wall or ventilation openings located on all four walls of the primary enclosure that are at least 8 percent of the total surface area of each such wall; *Provided, however,* That at least one-third of the total minimum area required for ventilation of the primary enclosure must be located on the lower one-half of the primary enclosure and at least one-third of the total minimum area required for ventilation of the primary enclosure must be located on the upper one-half of the primary enclosure.

(2) Unless the primary enclosure is permanently affixed to the conveyance, projecting rims or other devices must be on the exterior of the outside walls with any ventilation openings to prevent obstruction of the ventilation openings. The projecting rims or similar devices must be large enough to provide a minimum air circulation space of 0.75 inches (1.9 centimeters) between the primary enclosure and anything the enclosure is adjacent to, unless 90 percent or greater of the surface area of the enclosure wall is open (*e.g.,* cage mesh).

(3) Any visually obscuring mesh used to provide security for the bird in the enclosure must not interfere with proper ventilation.

(4) If a primary enclosure is permanently affixed within the animal cargo space of the primary conveyance so that the front opening is the only source of ventilation for such primary enclosure, the front opening must open directly to the outside or to an unobstructed aisle or passageway within the primary conveyance. Such front ventilation opening must be at least 90 percent of the total surface area of the front wall of the primary enclosure and covered with bars, wire mesh, or smooth expanded metal.

(c) *Cleaning of primary enclosures.* A primary enclosure used to hold or transport birds in commerce must be cleaned and sanitized before each use in accordance with § 3.158 by the dealer, research facility, exhibitor, or operator of an auction sale.

(d) *Compatibility.* Live birds transported in the same primary enclosure must be of the same species or compatible species and maintained in compatible groups. Socially dependent birds must be able to see and hear each other.

(e) *Space and placement.* Primary enclosures used to transport live birds must be large enough to ensure that each bird contained therein has sufficient space to turn about freely and to make normal postural adjustments; *Provided, however,* That certain species may be restricted in their movements according to professionally accepted standards when such freedom of movement would constitute a danger to the birds, their handlers, or other persons.

(f) *Accompanying documents and records.* Documents accompanying the shipment must be attached in an easily accessible manner to the outside of a primary enclosure which is part of such shipment and must not obstruct ventilation openings.

§ 3.163 Primary conveyances (motor vehicle, rail, air, and marine).

(a) The animal cargo space of primary conveyances used in transporting live birds must be designed, constructed, and maintained in a manner that at all times protects the health and well-being of the animals transported in them, ensures their safety and comfort, and prevents the entry of exhaust from the primary conveyance during transportation.

(b) The animal cargo space must have a supply of air that is sufficient for the normal breathing of all the animals being transported in it.

(c) Each primary enclosure containing birds must be positioned in the animal cargo space in a manner that provides protection from the elements and that allows each bird enough air for normal breathing.

(d) During transportation, the climatic conditions in the animal cargo area shall be maintained in accordance with the requirements of § 3.168.

(e) Primary enclosures must be positioned in the primary conveyance in a manner that allows the birds to be quickly and easily removed from the primary conveyance in an emergency.

(f) The interior of the bird cargo space must be kept clean.

(g) Live birds may not be transported with any material, substance (*e.g.,* dry ice), or device which may reasonably be expected to be injurious to the health and well-being of the birds unless proper precaution is taken to prevent such injury.

§ 3.164 Food and water requirements.

(a) All weaned birds must be offered food and potable water within 4 hours before being transported in commerce.

(b) Dealers, exhibitors, research facilities, and operators of auction sales must provide potable water to all weaned birds transported in their own primary conveyance at least every 12 hours after such transportation is initiated, except for birds which, according to professionally accepted standards or under the direction of the attending veterinarian, require watering or feeding more or less frequently. Carriers and intermediate handlers must provide potable water to all live, weaned birds at least every 12 hours after accepting them for transportation in commerce, except for birds which, according to professionally accepted standards or under the direction of the attending veterinarian, require watering or feeding more or less frequently.

(c) All weaned birds must be fed at least once in each 24-hour period, except as directed by veterinary treatment, normal fasts, or other professionally accepted standards. Birds that require feeding more or less frequently must be fed accordingly.

(d) A sufficient quantity of food and water or other source of hydration must accompany the bird to provide food and water for such bird during period of transport, except as directed by veterinary treatment and other professionally accepted standards.

(e) Any dealer, research facility, exhibitor, or operator of an auction sale offering any live bird to any carrier or intermediate handler for transportation in commerce must securely affix to the outside of the primary enclosure used for transporting the bird written instructions for the in-transit food and water requirements of the bird contained in the enclosure. The instructions must be attached in accordance with § 3.162(f) and in a manner that makes them easily noticed and read.

(f) No carrier or intermediate handler may accept any live bird for transportation in commerce unless written instructions concerning the food and water requirements of such bird while being so transported is affixed to the outside of its primary enclosure. The instructions must be attached in accordance with § 3.162(f) and in a manner that makes them easily noticed and read.

§ 3.165 Care in transit.

(a) *Surface transportation (ground and water).* During surface transportation, any person subject to the Animal Welfare regulations in parts 1, 2, and 3 of this subchapter transporting birds in commerce must ensure that the operator of the conveyance, or a person accompanying the operator, visually observes the birds as frequently as circumstances may allow, but not less than once every 4 hours, to ensure that the birds are receiving sufficient air for normal breathing, that climatic and environmental conditions are being maintained in accordance with the requirements in § 3.168, and that all other applicable standards are met. The regulated person must ensure that the operator or person accompanying the operator determines whether any of the birds are in physical distress and obtains any veterinary care needed for the birds as soon as possible.

(b) *Air transportation.* When transported by air, live birds must be visually observed by the carrier as frequently as circumstances may allow, but not less than once every 4 hours, if the animal cargo space is accessible during flight. If the animal cargo space is not accessible during flight, the carrier must visually observe the live birds whenever they are loaded and unloaded and whenever the bird cargo space is otherwise accessible to ensure that they are receiving sufficient air for normal breathing, that climatic and environmental conditions are being maintained in accordance with the requirements in § 3.168, and that all other applicable standards are met. The carrier must determine whether any such live birds are in physical distress and arrange for any needed veterinary care as soon as possible.

(c) *Prohibition on the transport of ill, injured, or distressed birds.* Any person subject to the Animal Welfare regulations in parts 1, 2, and 3 of this subchapter may not transport in commerce birds that are ill, injured, or in physical distress, except to receive veterinary care for the condition.

§ 3.166 Terminal facilities.

(a) *Placement.* Carriers and intermediate handlers must not commingle shipments of live birds with other animals or inanimate cargo in animal holding areas of terminal facilities.

(b) *Cleaning, sanitization, and pest control.* All animal holding areas of terminal facilities must be cleaned and sanitized in a manner prescribed in § 3.158 as often as necessary to prevent an accumulation of debris or excreta and to minimize vermin infestation and disease hazards. Terminal facilities must follow an effective program in all animal holding areas for the control of insects, ectoparasites, and other pests of birds.

(c) *Ventilation.* Ventilation must be provided in any animal holding area in a terminal facility containing birds, by means of windows, doors, vents, or air conditioning. The air must be circulated by fans, blowers, or air conditioning so as to minimize drafts, odors, and moisture condensation.

(d) *Climatic and environmental conditions.* The climatic and environmental conditions in an animal holding area containing live birds shall be maintained in accordance with the requirements of § 3.168.

§ 3.167 Handling.

(a) Any person subject to the Animal Welfare regulations (parts 1, 2, and 3 of this subchapter) who moves (including loading and unloading) live birds within, to, or from the animal holding area of a terminal facility or a primary conveyance must do so as quickly and efficiently as possible and must provide the following during movement of the live birds:

(1) *Shelter from sunlight and extreme heat.* Sufficient shade shall be provided to protect the live birds from the direct rays of the sun.

(2) *Shelter from rain and snow.* Sufficient protection shall be provided to allow the live birds the option to remain dry during rain, snow, and other precipitation.

(3) *Climatic and environmental conditions.* Climatic and environmental conditions during movement shall be maintained in accordance with the requirements of § 3.168.

(b) Any person handling a primary enclosure containing a live bird must use care and must avoid causing physical harm or distress to the bird.

(c) A primary enclosure containing a live bird must not be tossed, dropped, or tilted, and must not be stacked in a manner which may reasonably be expected to result in its falling.

§ 3.168 Climatic and environmental conditions during transportation.

(a)(1) Transportation of all live birds shall be done in a manner that does not cause overheating, excessive cooling, or adverse environmental conditions that could cause discomfort or stress. When climatic or environmental conditions, including temperature, humidity,

exposure, ventilation, pressurization, time, or other environmental conditions, or any combination thereof, present a threat to the health or well-being of a live bird, appropriate measures must be taken immediately to alleviate the impact of those conditions. The different climatic and environmental factors prevailing during a journey must be considered when arranging for the transportation of and when transporting live birds. Corrections may include, but would not be limited to:

(i) The temperature and humidity level of any enclosure used during transportation of live birds must be controlled by adequate ventilation or any other means necessary;

(ii) Appropriate care must be taken to ensure that live birds are not subjected to prolonged drafts detrimental to their health or well-being;

(iii) Appropriate care must be taken to ensure that live birds are not exposed to direct heat or cold if detrimental to their health or well-being; and

(iv) During prolonged air transit stops in local climatic conditions that could produce excessive heat for live birds held in aircraft compartments, the aircraft doors must be opened and, if necessary, ground equipment must be used to control the condition of the air within compartments containing live birds.

(2) In order to determine what climatic and environmental conditions are appropriate for a live bird, factors such as, but not limited to, the bird's age, species, physiological state, last feeding and watering, and acclimation shall be considered when such information is available.

(b) Birds that are not able to maintain a constant body temperature at ambient temperatures must be transported in a brooder or other temperature-regulating unit that effectively assists the bird in maintaining a constant body temperature during transport.

(1) The temperature of the brooder or other temperature-regulating unit must be monitored during transportation and appropriate for the live bird.

(2) Written instructions for the temperature requirements of birds transported in brooders or other temperature-regulating units must be securely affixed to the outside of the primary enclosure used for transporting the bird. The instructions must be attached in accordance with § 3.162(f) in a manner that makes them easily noticed and read.

Done in Washington, DC, this 14th day of February 2022.

Jennifer Moffitt,

Under Secretary for Marketing and Regulatory Programs.

[FR Doc. 2022–03565 Filed 2–18–22; 8:45 am]

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Part V

Department of Transportation

National Highway Traffic Safety Administration

49 CFR Part 571

Federal Motor Vehicle Safety Standards; Lamps, Reflective Devices, and Associated Equipment, Adaptive Driving Beam Headlamps; Final Rule

DEPARTMENT OF TRANSPORTATION

National Highway Traffic Safety Administration

49 CFR Part 571

[Docket No. NHTSA–2022–0013]

RIN 2127–AL83

Federal Motor Vehicle Safety Standards; Lamps, Reflective Devices, and Associated Equipment, Adaptive Driving Beam Headlamps

AGENCY: National Highway Traffic Safety Administration (NHTSA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: This document amends NHTSA's lighting standard to permit the certification of adaptive driving beam (ADB) headlamps. ADB headlamps utilize technology that actively modifies a vehicle's headlamp beams to provide more illumination while not glaring other vehicles. The requirements adopted today are intended to amend the lighting standard to permit this technology and establish performance requirements for these systems to ensure that they operate safely. ADB has the potential to reduce the risk of crashes by increasing visibility without increasing glare. The agency initiated this rulemaking in response to a petition for rulemaking from Toyota Motor North America, Inc.

DATES:

Effective date: The effective date of this final rule is February 22, 2022. The incorporation by reference of certain publications listed in the rule was approved by the Director of the Federal Register as of February 6, 2012.

Compliance date: The compliance date for the amendments in this final rule is February 22, 2022.

Petitions for reconsideration: Petitions for reconsideration of this final rule must be received not later than April 8, 2022.

ADDRESSES: Petitions for reconsideration of this final rule must refer to the docket and notice number set forth above and be submitted to the Administrator, National Highway Traffic Safety Administration, 1200 New Jersey Avenue SE, Washington, DC 20590. Note that all petitions received will be posted without change to *www.regulations.gov,* including any personal information provided.

Privacy Act: Please see the Privacy Act heading under Rulemaking Analyses and Notices.

FOR FURTHER INFORMATION CONTACT: Mr. Markus Price, NHTSA Office of Crash Avoidance Standards. Telephone: 202–366–1810; Email: *Markus.Price@dot.gov;* or Mr. John Piazza, Office of Chief Counsel. Telephone: 202–366–2992; Email: *John.Piazza@dot.gov.* You may send mail to these officials at: National Highway Traffic Safety Administration, 1200 New Jersey Avenue SE, Washington, DC 20590.

SUPPLEMENTARY INFORMATION:

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I. Executive Summary

This final rule amends Federal Motor Vehicle Safety Standard (FMVSS or Standard) No. 108, ''Lamps, reflective devices, and associated equipment,'' to enable the certification of adaptive driving beam (ADB) headlighting systems on vehicles sold in the United States. NHTSA is issuing this final rule under the National Traffic and Motor Vehicle Safety Act (Safety Act), 49 U.S.C. Chapter 301, Motor Vehicle Safety (49 U.S.C. 30101 *et seq.*).

Glare, Visibility, and Adaptive Driving Beam Technology

Adaptive driving beam headlamps utilize technology that actively modifies the headlamp beams to provide more illumination while not glaring other vehicles. The requirements adopted today are intended to amend FMVSS No. 108 to permit this technology and ensure that it operates safely.

Vehicle headlamps must satisfy two different safety needs: Visibility and glare prevention. The primary function of headlamps is to provide forward visibility for drivers. At the same time, there is a risk that intense headlamp illumination may be directed towards oncoming or preceding vehicles. Such illumination, referred to as glare, can reduce the ability of other drivers to see and can cause discomfort. Headlighting has therefore traditionally entailed a tradeoff between long-distance visibility and glare prevention. This is reflected in Standard No. 108's requirement that

headlighting systems have both upper and lower beams. The existing headlamp requirements regulate the beam pattern (photometry) of the upper and lower beams; they ensure sufficient visibility by specifying minimum amounts of light in certain areas on and around the road, and prevent glare by specifying maximum amounts of light in directions that correspond to where oncoming and preceding vehicles would be.

ADB systems are an advanced type of headlamp technology that optimizes beam patterns without driver action. Semiautomatic beam switching technology was first introduced on vehicles in the United States in the 1950s and has become increasingly popular in the last few decades. The semiautomatic beam switching technology currently available in the United States (commonly referred to as ''auto hi-beam'' or ''high beam assist'') automatically switches between the lower and upper beams. This provides safety benefits because research has shown that most drivers underutilize the upper beams, and semiautomatic beam switching facilitates increased upper beam use in situations where drivers of other vehicles will not be glared.

ADB systems are an improvement over ''auto hi-beam'' technology currently available in the United States because they are capable of providing more illumination than a lower beam without increasing glare. When operating in automatic mode, instead of simply switching between the upper and lower beams, an ADB system is able to provide a dynamic, adaptive beam pattern that changes based on the presence of other vehicles or objects, providing less illumination to occupied areas of the road and more illumination to unoccupied areas of the road. ADB systems can therefore provide more illumination than existing lower beams without glaring other motorists (if operating correctly). ADB systems achieve this enhanced performance by utilizing advanced sensors, data processing software, and headlamp hardware.

ADB systems are available in foreign markets but are not currently offered on vehicles in the United States. This final rule amends FMVSS No. 108 to permit ADB systems on vehicles in the United States and ensure that they operate safely. ADB, like other headlamp technologies, implicates the twin safety needs of visibility and glare prevention. This final rule does three main things that, taken together, allow ADB systems and ensure that they meet these safety needs.

First, it amends FMVSS No. 108 to allow ADB systems. It amends, among other things, the existing headlamp requirements so that ADB technology is permitted.

Second, this final rule adopts requirements to ensure that ADB systems do not increase glare to other motorists beyond current lower beams. ADB systems are capable of providing a variable, adaptive beam in the presence of other vehicles that provides more illumination than the currently allowed lower beam. However, if ADB systems do not accurately detect other vehicles on the road and shade them accordingly, other motorists will be glared.[1] The rule addresses this safety need by including vehicle-level track-test requirements specifically tailored to evaluate whether an ADB system functions safely and limits glare for other motorists.

Third, it adopts component-level laboratory-tested requirements related to both glare and visibility, as well as a limited set of other system requirements, such as requirements for manual override and fail-safe operation.

In drafting this final rule, NHTSA considered two major regulatory alternatives. One was the Economic Commission for Europe (ECE) regulations that apply to ADB systems, including a vehicle-level test on public roads. However, the ECE road test is not appropriate for adoption as an FMVSS because it does not provide sufficiently objective performance criteria. We also considered a Society for Automotive Engineers (SAE) recommended practice, J3069 JUN2016, Surface Vehicle Recommended Practice; Adaptive Driving Beam, as well as the updated version of this practice (published in March 2021). The final rule follows SAE J3069 in many significant respects, but also differs from it in significant ways.

NHTSA published the notice of proposed rulemaking (NPRM) preceding this final rule on October 12, 2018 (83 FR 51766). Many industry comments to the NPRM urged closer harmonization with SAE J3069. These comments focused primarily on costs from dis-harmonization due to the resulting need for market-specific hardware and components. In response to the comments, NHTSA conducted additional vehicle-level testing to validate modifications to the proposal to harmonize more closely with SAE J3069 while still retaining sufficient realism. As a result, NHTSA has changed some aspects of the proposal. The final rule more closely conforms to SAE J3069 in a number of respects but continues to deviate from it for reasons discussed in detail in this preamble.

Differences Between This Final Rule and the Proposal

The following discussion highlights the more noteworthy differences between the final rule and the NPRM. All changes from the proposal are discussed in the appropriate sections of this preamble.

Vehicle-Level Track Test To Evaluate Glare

Stimulus test fixtures instead of stimulus vehicles. The final rule specifies test fixtures instead of stimulus vehicles. This change will result in a less complex test that is more closely harmonized with SAE J3069, while still ensuring that ADB systems operate safely. While the test fixture specifications follow SAE J3069 with respect to the locations of the photometers and stimulus lamps, the final rule requires the use of more real-world representative lighting in the compliance test by specifying original equipment vehicle headlamps and taillamps.

More efficient test scenarios. The final rule simplifies the number and complexity of test scenarios. The final rule continues to differ from SAE J3069 by specifying test scenarios with actual curves because this is necessary to evaluate how an ADB system would perform in the real world. We have, however, modified many of the curved-path test scenarios. NHTSA believes that the final scenarios meet the need for motor vehicle safety by containing a broad range of realistic road geometries and vehicle interactions.

Data measurement and allowances. The final rule changes how NHTSA will measure and evaluate ADB system illuminance. This includes an added specification for a data filter and replacing the proposed International Roughness Index parameter with an explicit adjustment for vehicle pitch.

Component-Level Laboratory Photometric Testing

The final rule retains, in modified form, the proposed requirements for component-level laboratory testing.

Defining ''adaptive driving beam'' as a new beam type. The final rule defines a new beam type, ''adaptive driving beam.'' The final rule also provides manufacturers flexibility to determine when to provide an area of reduced or unreduced intensity (subject to several requirements or constraints, such as the

[1] NHTSA is sensitive to concerns about glare due to the numerous complaints from the public it has received and its own research (prompted, in part, by these complaints and a 2005 Congressional mandate to study the risks from glare).

track test that evaluates glare). This will enable systems to provide an area of reduced intensity not only to prevent glare to oncoming or preceding vehicles, but also in other situations in which reduced intensity would be beneficial.

Requirements for areas of reduced intensity. The final rule follows the NPRM and specifies the existing lower beam photometric test points (both minima and maxima). The minima are important because the final rule does not include any ''false positive'' tests to ensure that an ADB system does not mistakenly dim the beam in the absence of other vehicles, and the maxima are necessary to help ensure that other motorists are not subject to glare beyond that experienced with lower beams.

Requirements for areas of unreduced intensity. The final rule follows the NPRM and specifies the existing upper beam photometric test points (both minima and maxima). Requiring a minimum level of illumination is important to ensure a minimum level of visibility. The final rule does not adopt the higher ECE upper beam maxima.

Transition zone. The final rule allows for a 1-degree transition zone between an area of reduced intensity and an area of unreduced intensity. The lower and upper beam photometric test points will not apply within a transition zone (except for the upper beam maximum at H–V, which still applies). Manufacturers essentially will be free to determine the areas of reduced and unreduced intensity and, therefore, the boundaries of the transition zone.

Other System Requirements

The final rule retains many of the proposed system requirements. However, the minimum activation speed has been decreased from 25 mph to 20 mph to give greater flexibility to manufacturers wishing to provide for hysteresis in the system design. The final rule also exempts ADB systems from many of the vehicle headlamp aiming device requirements, which would add unnecessary costs to ADB systems.

Benefits and Costs

This final rule is not significant and so was not reviewed by OMB under E.O. 12866. NHTSA has determined that quantifying the benefits and costs is not practicable in this rulemaking because of limitations on the agency's ability to accurately estimate the target population and the effectiveness of ADB. We have, however, identified the problem this rule is intended to address, considered whether existing regulations have contributed to the problem, qualitatively assessed the costs and benefits, and considered alternatives. This final rule appropriately balances the needs for visibility and glare prevention, and adopts requirements that are both practicable and sufficient to assess whether an ADB system operates safely. This final rule does not require manufacturers to provide ADB systems, but only specifies the requirements the systems must meet if equipped on vehicles.

II. Background and Safety Need

On October 12, 2018, NHTSA published the NPRM (83 FR 51766) underlying this final rule. NHTSA is publishing this final rule to set forth the amendments to FMVSS No. 108 (49 CFR 571.108), summarize the comments received in response to the proposal, and provide the agency's responses to those comments.

This section provides a brief introduction to the safety needs addressed in this rulemaking, ADB technology, the relevant industry and international standards for ADB systems, the petition for rulemaking that prompted the NPRM, and related exemption petitions and NTSB recommendations. For additional detailed background information (including an explanation of the headlamp photometric requirements and regulatory history and research efforts related to glare), the reader is referred to the NPRM.[2]

Safety Needs: Visibility and Glare Prevention

Vehicle headlamps primarily satisfy two safety needs: Visibility and glare prevention. Headlamps illuminate the area ahead of the vehicle and provide forward visibility.[3] Headlamp illumination, however, has the potential to glare other motorists. Accordingly, headlighting systems have traditionally consisted of lower beams and upper beams. The lower beams (also referred to as passing beams or dipped beams) are designed to provide relatively high levels of light in the close-in forward visibility region, and to provide reduced light intensity in longer-distance regions, where oncoming or preceding vehicles would be glared. The lower beams are intended for use during lower-speed driving or when meeting or closely following another vehicle. Upper beams (also referred to as high beams, main beams, or driving beams) are designed to provide relatively high levels of illumination in both close-in and longer distance regions. They are intended primarily for distance illumination and for use when not meeting or closely following another vehicle. (FMVSS No. 108 establishes maximum levels of intensity the upper beam may not exceed.)

Visibility and glare are both related to motor vehicle safety. Visibility has an obvious, intuitive relation to safety: The better drivers can see the road, the better they can react to road conditions and obstacles to avoid crashes. Although the qualitative connection to safety is intuitive, quantifying the effect of visibility on crash risk is difficult because of many confounding factors (for example, was a late-night crash caused by diminished visibility or driver fatigue?). Still, evidence suggests that diminished visibility likely increases the risk of crashes, particularly crashes at higher speeds involving pedestrians, animals, trains, and parked cars.[4] The NPRM (in Appendix A) included an analysis estimating the target population that could benefit from the increased visibility provided by ADB systems.

Glare is related to safety because it can degrade important aspects of driving performance. Glare is a sensation caused by bright light in an observer's field of view. Headlamp illumination can glare drivers of oncoming or preceding vehicles (via the rearview or side mirrors). Empirical evidence suggests that headlamp glare decreases visibility distance, increases reaction time, and reduces detection probability, among other things.[5] It can

[2] *See* pp. 51768–51774.

[3] They also make the vehicle more visible to other road users.

[4] Nighttime Glare and Driving Performance, Report to Congress (2007), National Highway Traffic Safety Administration, Department of Transportation [hereinafter ''2007 Report to Congress''], p. 6. A 2016 study by the Insurance Institute for Highway Safety noted that ''[t]wenty-nine percent of all fatalities during 2014 occurred in the dark on unlit roads. Although factors such as alcohol impairment and fatigue contributed to many of these crashes, poor visibility likely also played a role.'' Ian J. Reagan, Matthew L. Brumbelow & Michael J. Flannagan. 2016. The Effects of Rurality, Proximity of Other Traffic, and Roadway Curvature on High Beam Headlamp Use Rates. Insurance Institute for Highway Safety, pp. 2–3 (citations omitted). *See also* Michael J. Flannagan & John M. Sullivan. 2011. Feasibility of New Approaches for the Regulation of Motor Vehicle Lighting Performance. Washington, DC: National Highway Traffic Safety Administration, p. 5 (NHTSA–2018–0090–0002) (''The conclusion of our analysis was that pedestrian crashes were by far the most prevalent type of crash that could in principle be addressed by headlighting.'').

[5] 2007 Report to Congress, pp. iv, 11–14. *See also, e.g.,* John D. Bullough *et al.* 2003. An Investigation of Headlamp Glare: Intensity, Spectrum and Size, DOT HS 809 672. Washington, DC: U.S. Department of Transportation, National Highway Traffic Safety Administration [hereinafter ''Investigation of Headlamp Glare''], p. 1. (''It is almost always the case that headlamp glare reduces visual performance under driving conditions relative to the level of performance achievable without glare.'')

also cause discomfort. Despite this evidence, it remains difficult to quantify the effect of glare on crash risk. Unlike drug or alcohol use, there is usually no way to determine precisely the amount of glare that was present in a given crash. Nevertheless, some police crash reports mention glare as a potential cause, and it is reasonable to expect that glare can reduce visibility, and reductions in visibility caused by headlamp glare increase crash risk.[6] Discomfort attributable to glare might also indirectly affect crash risk (for example, if a driver reacts to glare by changing their direction of gaze).[7] In addition, discomfort caused by glare may induce some drivers, particularly older drivers, to avoid driving at night or simply increase their annoyance.[8]

The potential problems associated with glare are highlighted by the thousands of complaints NHTSA has received from the public on the issue, as well as congressional interest. The introduction of halogen headlamp technology in the late 1970s and high-intensity discharge and auxiliary headlamps in the 1990s was accompanied by a marked upswing in the number of glare complaints to NHTSA. In response to increased consumer complaints in the late 1990s, NHTSA published a Request for Comments in 2001 on issues related to glare from headlamps, fog lamps, driving lamps, and auxiliary headlamps.[9] NHTSA received more than 5,000 comments, most of which concerned nighttime glare from front-mounted lamps.[10] In 2005 Congress directed DOT to study the risks of glare.[11] NHTSA subsequently initiated a multipronged research program to examine the causes of, and possible solutions to, glare.[12]

Adaptive Driving Beam Technology

ADB systems are an advanced type of headlamp technology that optimizes beam patterns without driver action. Semiautomatic beam switching technology was first introduced on vehicles in the United States in the 1950s and has become increasingly popular in the last few decades with the wider deployment of camera-based driver assistance technologies. The semiautomatic beam switching technology currently available on vehicles in the United States is commonly referred to as ''auto hi-beam'' or ''high beam assist,'' among other terms. This currently-available technology automatically switches between the lower and upper beams (while still allowing the driver to manually switch beams).[13] Semiautomatic beam switching enhances safety because it facilitates increased use of the upper beams in situations where drivers of other vehicles will not be glared. Research has shown that most drivers under-utilize the upper beams,[14] despite the fact that ''driving with lower-beam headlamps can result in insufficient visibility for a number of driving situations,'' [15] particularly at higher speeds.[16]

ADB systems are an improvement over the ''auto hi-beam'' technology currently available in the United States because they are capable of providing more illumination than a lower beam without increasing glare. When operating in automatic mode, instead of simply switching between the upper and lower beams, the ADB system is able to provide a dynamic, adaptive beam pattern that changes based on the presence of other vehicles or objects, providing less illumination to occupied areas of the road and more illumination to unoccupied areas of the road.[17] The portions of the adaptive beam directed to areas of the roadway occupied by other vehicles are at or (for some systems deployed in Europe) even below levels of a lower beam.[18] The portions of the adaptive beam directed at unoccupied areas of the road are typically equivalent to an upper beam. When the roadway ahead is fully occupied by oncoming or preceding vehicles, the adaptive beam is essentially a lower beam. When there are no oncoming or preceding vehicles, the adaptive beam is essentially an upper beam.[19]

So, for example, when an ADB-equipped vehicle (operating in automatic mode) travelling on an otherwise unoccupied roadway encounters an oncoming vehicle, it switches from an upper beam providing high light levels in both close-in and longer distance regions to an adaptive beam providing reduced intensity (similar to a lower beam) near the oncoming vehicle and unreduced intensity (similar to an upper beam) elsewhere. Because the system is able to provide unreduced intensity to unoccupied areas of the roadway, while at the same time providing reduced intensity to areas near other vehicles, it provides more illumination than a conventional lower beam would provide. ADB therefore has the potential to reduce the risk of crashes by increasing visibility without increasing glare. The adaptive beam is particularly useful for distance illumination of pedestrians, animals, and objects in or near the road when other vehicles are present and thus preclude use of the upper beam.

ADB systems achieve this enhanced performance by utilizing advanced sensors, data processing software, and headlamp hardware (such as shutters or LED arrays). Many current ADB systems utilize a camera with a typical field of view of approximately 25 degrees left and right to detect objects.[20] High-resolution ADB systems are capable of classifying objects and placing optimized levels of light on all objects in the driver's view (such as

[6] John D. Bullough *et al.* 2008. Nighttime Glare and Driving Performance: Research Findings, DOT HS 811 043. Washington, DC: U.S. Department of Transportation, National Highway Traffic Safety Administration, p. I–4.

[7] *Id.,* p. 33. *But see* Investigation of Headlamp Glare, p. 3 (''Very few studies have probed the interactions between discomfort and disability glare, or indeed any driving-performance related factors . . . .'').

[8] 2007 Report to Congress, p. iv.

[9] 66 FR 49594 (Sept. 28, 2001).

[10] 69 FR 54255 (Sept. 8, 2004).

[11] Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users, Public Law 109–59, Sec. 2015 (2005).

[12] For more information, see the NPRM at p. 51771.

[13] Under FMVSS No. 108 this technology is classified as a ''semiautomatic beam switching device'' because it provides either automatic or manual control of switching between the lower and upper beams at the option of the driver. *See* S4 (definition of ''semiautomatic headlamp beam switching device'') and S9.4.

[14] *See, e.g.,* John D. Bullough, Nicholas P. Skinner, Yukio Akashi, & John Van Derlofske. 2008. Investigation of Safety-Based Advanced Forward-Lighting Concepts to Reduce Glare, DOT HS 811 033. Washington, DC: National Highway Traffic Safety Administration, p. 63. (finding that ''abundant evidence suggests that most drivers use lower beams primarily, if not exclusively.'') *See also, e.g.,* Mary Lynn Mefford, Michael J. Flannagan & Scott E. Bogard. 2006. Real-World Use of High-Beam Headlamps, UMTRI–2006–11. University of Michigan, Transportation Research Institute, p. 6 (finding that ''high-beam headlamp use is low . . . consistent with previous studies that used different methods'').

[15] Investigation of Safety-Based Advanced Forward-Lighting Concepts to Reduce Glare (DOT HS 811 033), p. 63.

[16] Michael J. Flannagan & John M. Sullivan. 2011. Preliminary Assessment of The Potential Benefits of Adaptive Driving Beams, UMTRI–2011–37. University of Michigan, Transportation Research Institute, p. 2.

[17] When operating in manual mode—which the driver may obtain at any time—the driver is able to switch between the lower and upper beams.

[18] SAE J3069 JUN 2016, pp. 1–2.

[19] There are, however, situations in which it may be appropriate to provide less than a full upper beam even in the absence of oncoming or preceding vehicles. For example, it may be optimal to direct less light at a retroreflective sign or wet roadway, in order to minimize glare to the driver of the ADB-equipped vehicle from reflected light. This is discussed in more detail in Section VIII.D.2.

[20] SAE comment (NHTSA–2018–0090–0167), p. 9 (''The forward camera vision on today's vehicles only extends to approximately 25 degrees left and right[.]''). We assume this is the camera's field of view for the illustrative examples in the discussions of the curve scenarios.

retroreflective signs or pedestrians). ADB systems typically use the existing headlamps that are modified either with a mechanical shade that blocks part of the beam, or (for light-emitting diode [LED] headlamps) extinguish individual LEDs. The ADB systems NHTSA tested required the driver to select the ADB mode using the headlighting system control. Once in ADB mode, the systems were designed to activate the adaptive beam at speeds between 20 mph and 40 mph and deactivate the adaptive beam (and provide a lower beam) from 15 mph to 25 mph.

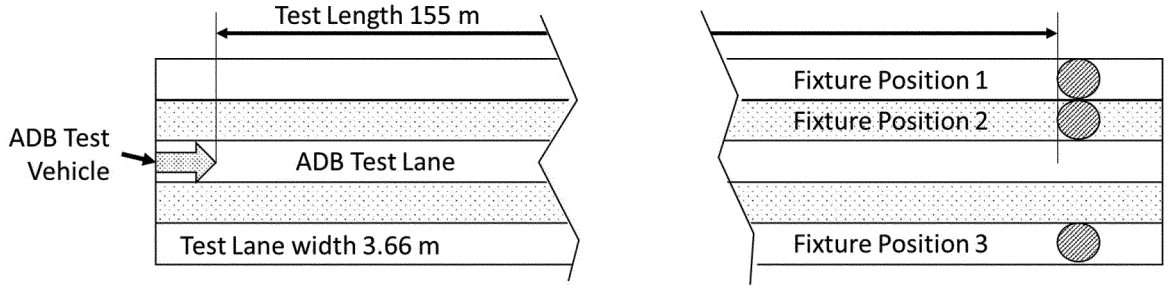
European ADB Requirements

ADB was first permitted in Europe by amendments to ECE Regulation No. 48 in 2006.[21] ECE regulations allow ADB systems under the umbrella of adaptive front lighting systems (AFS). There are a variety of requirements for AFS generally and adaptive lighting in particular. Unlike the FMVSS, which rely on manufacturer self-certification, ECE requirements for ADB systems utilize the type approval framework used throughout the ECE standards. Under the type approval framework, production samples of new model cars must be approved by regulators before being offered for sale. This approval is based, in part, on testing whole vehicles on public roadways to verify performance. The ECE requirements specify that the adaptation of the main-beam not cause any discomfort, distraction or glare to the driver of the ADB-equipped vehicle (for example, glare to the driver cause by excessive illumination of retroreflective signs) or to oncoming and preceding vehicles. This is demonstrated through the technical service performing a test drive on various types of roads (*e.g.,* urban, multi-lane roads, and country roads), at a variety of speeds, and in a variety of specified traffic conditions. The performance of the ADB system is evaluated based on the subjective observations of the type approval engineer during this test drive. The ECE road test is therefore not appropriate for adoption as an FMVSS because it does not provide objective performance criteria. However, the proposed track test scenarios were based, in part, on the ECE road-test scenarios.

SAE J3069

In June 2016, SAE International (SAE) published SAE J3069 JUN2016, Surface Vehicle Recommended Practice; Adaptive Driving Beam (SAE J3069).[22] The recommended practice, which is based, in part, on NHTSA's research (described in Section VII below), includes (among other requirements) a track test to evaluate ADB system performance in avoiding excessive glare to other vehicles. It specifies a straight test path with a single lane, on either side of which it specifies the placement of test fixtures simulating an opposing or preceding vehicle. See Figure 1. The test fixtures are fitted with lamps having a specified luminous intensity, color, and size intended to simulate the taillamps and headlamps on a typical car, truck, or motorcycle. Four different test fixtures are specified: An opposing (*i.e.,* oncoming) car/truck; an opposing motorcycle; a preceding car/truck; and a preceding motorcycle. In addition to simulated vehicle lighting, the test fixtures are fitted with photometers[23] to measure the illumination from the ADB headlamps. Although the test does not specify any scenarios with a curved test path, the placement of the fixtures relative to the straight test path, along with a sudden appearance test, are intended to simulate curves.

Figure 1 – SAE test fixture positions



SAE J3069 sets out a total of 18 different test drive scenarios. The scenarios vary the test fixture, the placement of the fixture, and whether the lamps on the test fixture are illuminated for the entire test drive, or are instead suddenly illuminated when the ADB vehicle reaches a specified distance from the test fixture. During each of these test drives, the illuminance[24] recorded at 30 meters (m), 60 m, 120 m, and 155 m must not exceed the maximum allowed illuminance specified for each distance. See Table 1. These illuminance maxima are based on and similar (but not identical) to the maximum illuminance limits developed in NHTSA's published research and proposed in the NPRM. If there is no recorded illuminance value at any of these distances, interpolation is used to estimate the illuminance at that distance. For sudden appearance tests, the system is given a maximum of 2.5 seconds to react and adjust the beam to reduce illumination to a level within the applicable maximum. If any recorded (or interpolated) illuminance value exceeds the applicable maximum illuminance, SAE J3069 provides for an

[21] *Uniform provisions concerning the approval of vehicles with regard to the installation of lighting and light-signalling devices* (R48) and Regulation No. 123, *Uniform provisions concerning the approval of adaptive front-lighting systems (AFS) for motor vehicles* (R123) of the Economic Commission for Europe (ECE).

[22] SAE has recently published a revised version of this recommended practice (SAE J3069 MAR2021). These limited revisions, where potentially relevant to this final rule, are identified and discussed in subsequent sections of this preamble.

[23] A photometer, or illuminance meter, is an instrument that measures light.

[24] Illuminance is the amount of light falling on a surface. The unit of measurement for illuminance is lux.

allowance: The same test drive scenario is run with the lower beam activated. The ADB system can still be deemed to have passed the test if any of the ADB exceedances do not exceed 125% of the measured (or interpolated) illuminance value(s) for the lower beam.

TABLE 1—SAE J3069 MAXIMUM ALLOWED ILLUMINANCE

Range from headlamp to photometer (m)	Maximum illuminance, oncoming (lux)	Maximum illuminance, preceding (lux)
30	1.8	18.9
60	0.7	8.9
120	0.3	4.0
155	0.3	4.0

In addition to the dynamic track test, SAE J3069 contains a number of other system requirements, such as a physical test (*e.g.,* a corrosion test) and telltale requirements. It also requires the system to comply with a limited set of component-level laboratory-based photometry requirements. For example, for the portion of the adaptive beam that is directed at areas of the roadway unoccupied by other vehicles, the lower beam minimum values specified in the relevant SAE standard must be met.[25] Specific provisions of SAE J3069 are discussed in more detail in the responses to the comments.

Toyota Petition for Rulemaking, ADB Exemption Petitions, and NTSB Recommendation

While ADB systems have been available in Europe for a number of years, they have not yet been deployed in the United States, largely because of industry uncertainty about whether FMVSS No. 108 allows ADB systems.[26] Prior to the NPRM, NHTSA had not formally addressed whether the lighting standard allows ADB systems. Accordingly, in 2013, Toyota Motor North America, Inc. (Toyota) petitioned NHTSA for rulemaking to amend FMVSS No. 108 to give manufacturers the option of equipping vehicles with ADB systems.[27] In its petition, Toyota described how its system works, identified potential safety benefits of the system, and discussed its view of how ADB should be treated under the agency's regulations. NHTSA granted Toyota's petition and the NPRM was NHTSA's action on that grant.

After receiving Toyota's petition, but prior to the NPRM, NHTSA received two exemption petitions (under 49 CFR part 555) for ADB-equipped vehicles. In 2016, Volkswagen Group of America (Volkswagen) submitted a petition for a temporary exemption from some of the requirements of FMVSS No. 108 to sell a limited number of ADB-equipped vehicles. NHTSA published a notice of receipt of this petition on September 11, 2017, and provided a 30-day comment period.[28] BMW of North America, LLC (BMW) subsequently submitted a similar petition, dated October 27, 2017. On March 22, 2018, NHTSA published a notice of receipt of the BMW petition and requested additional information from both petitioners.[29] Both Volkswagen and BMW subsequently submitted additional information to the docket. Prior to today, NHTSA has not made a decision on either petition; as we explain later in the preamble, NHTSA is denying the petitions in a separate notice published today.

Shortly before the NPRM was published in October 2018, the National Transportation Safety Board (NTSB) published a special investigation report that examined pedestrian crashes and related phenomena.[30] The report covered, among other things, vehicle headlighting system performance. The NTSB found that the FMVSS should not limit advanced vehicle lighting systems that have been shown to have safety benefits. It also found that vehicle headlighting systems require an evaluation that is more advanced than laboratory bench-testing. The report went on to recommend that NHTSA revise FMVSS No. 108 to allow adaptive headlight systems. This final rule responds to these NTSB recommendations.

III. NHTSA's Statutory Authority

NHTSA is issuing this final rule under the Motor Vehicle Safety Act (Safety Act), 49 U.S.C. Chapter 301, Motor Vehicle Safety (49 U.S.C. 30101 *et seq.*). Under the Safety Act, the Secretary of Transportation is responsible for prescribing motor vehicle safety standards that are practicable, meet the need for motor vehicle safety, and are stated in objective terms.[31] ''Motor vehicle safety'' is defined in the Safety Act as ''the performance of a motor vehicle or motor vehicle equipment in a way that protects the public against unreasonable risk of accidents occurring because of the design, construction, or performance of a motor vehicle, and against unreasonable risk of death or injury in an accident, and includes nonoperational safety of a motor vehicle.''[32] ''Motor vehicle safety standard'' means a minimum performance standard for motor vehicles or motor vehicle equipment.[33] When prescribing such standards, the Secretary must consider all relevant, available motor vehicle safety information.[34] The Secretary must also consider whether a proposed standard is reasonable, practicable, and appropriate for the types of motor vehicles or motor vehicle equipment for which it is prescribed and the extent to which the standard will further the statutory purpose of reducing traffic accidents and associated deaths.[35] The responsibility for promulgation of Federal Motor Vehicle Safety Standards is delegated to NHTSA.[36] The agency carefully considered these statutory requirements in developing this final rule. We evaluate this rule with respect to these requirements in subsequent sections of this preamble.

IV. ADB Rulemaking Mandate in the Infrastructure, Investment and Jobs Act

Congress has recently passed, and the President has signed, the Infrastructure, Investment and Jobs Act (''IIJA'').[37] Section 24212 of IIJA contains a mandate for a variety of headlamp rulemakings, including an ADB rulemaking. Specifically, IIJA requires in paragraph (b) of § 24212 that ''[n]ot later than 2 years after the date of enactment of this Act, the Secretary shall issue a final rule amending Standard 108'' to, among other things, ''allow for the use on vehicles of adaptive driving beam headlamp systems.'' Paragraph (a) of § 24212 defines ''adaptive driving beam headlamp'' to mean a headlamp ''that meets the performance requirements specified in SAE International Standard J3069, published on June 30, 2016.'' Paragraph (c) of § 24212 states that ''[n]othing in this section precludes the

[25] As explained in the NPRM, FMVSS No. 108 also contains laboratory-based photometric requirements. SAE J3069 refers not to these requirements, but to analogous requirements specified in other SAE standards.

[26] *See, e.g.,* SAE J3069 (''However, in the United States it is unclear how ADB would be treated under the current Federal Motor Vehicle Safety Standard (FMVSS) 108.'').

[27] Letter from Tom Stricker, Toyota Motor North America, Inc. to NHTSA (Mar. 29, 2013). Toyota requested confidential treatment for portions of its submission. A redacted copy of the petition has been placed in the docket for this rulemaking.

[28] 82 FR 42720 (Docket No. NHTSA–2017–0018).

[29] 83 FR 12650 (Docket No. NHTSA–2017–0018).

[30] National Transportation Safety Board. 2018. Pedestrian Safety. Special Investigation Report NTSB/SIR–18/03. Washington, DC.

[31] 49 U.S.C. 30111(a).

[32] 49 U.S.C. 30102(a)(9).

[33] 30102(a)(10).

[34] 30111(b)(1).

[35] 30111(b)(3)–(4).

[36] *See* 49 CFR 1.95.

[37] H.R. 3684 (117th Congress) (2021).

Secretary from—. . . (2) revising Standard 108 to reflect an updated version of SAE International Standard J3069, as the Secretary determines to be—(A) appropriate; and (B) in accordance with section 30111 of [the Safety Act].'' Today's final rule satisfies both that ADB mandate and the core Safety Act requirement that FMVSSs, among other things, ''meet the need for motor vehicle safety,'' [38] which, as explained throughout this notice, would not be met by a standard that solely codified SAE J3069.

Paragraphs (a) and (b) of § 24212, taken together, instruct NHTSA to amend FMVSS No. 108 to allow ADB systems that at least meet the requirements of SAE J3069. Paragraph (b) instructs NHTSA to ''amend[ ] Standard 108.'' Standard 108 is an FMVSS, and FMVSSs are subject to the criteria in § 30111 of the Safety Act, which include, importantly, meeting the need for motor vehicle safety. The directive to ''amend[ ] Standard 108'' in paragraph (b) would conflict with the specification of SAE J3069 in paragraph (a) if SAE J3069 did not meet the need for safety and NHTSA were limited to allowing any systems that met that standard. We also do not believe § 24212 means that Congress determined that SAE J3069 satisfies § 30111, as the codified text does not express this conclusion nor is there such a finding elsewhere in the IIJA statute or legislative history. Therefore, reading paragraphs (a) and (b) as requiring NHTSA to amend FMVSS No. 108 so that ADB systems that meet SAE J3069 can also meet the requirements of the revised Standard 108 harmonizes the directive in paragraph (b) to ''amend[ ] Standard 108'' with the specification of SAE J3069 in paragraph (a). It also harmonizes with the Safety Act, as well as with the National Technology Transfer and Advancement Act,[39] which, while generally requiring the use of consensus standards, importantly reserves to an agency the ability to decline using a consensus standard that it determines does not meet the agency's governing statutes.

As the Supreme Court has explained, statutes should be construed harmoniously, so that ''when two statutes are capable of coexistence,'' they should be construed as each having effect.[40] The interpretation taken in this final rule achieves that goal. In contrast, an interpretation that would require NHTSA to amend the standard to permit any ADB system conforming to SAE J3069 would be an implicit repeal of the Safety Act in this instance—and there is a strong presumption against implied repeals.[41] As the Supreme Court has repeatedly pointed out, ''repeals by implication are not favored and will not be presumed unless the intention of the legislature to repeal is clear and manifest.'' [42] Due to this ''relatively stringent standard,'' implied repeals are ''rare,'' [43] and have generally been limited to situations ''where provisions in two statutes are in irreconcilable conflict, or where the latter Act covers the whole subject of the earlier one and is clearly intended as a substitute.[44] But ''in either case, the intention of the legislature to repeal must be clear and manifest.'' [45] Here, Congress has shown no such manifest intention in § 24212. In particular, as NHTSA had already published an NPRM tentatively determining that SAE J3069 does not meet the need for safety, the Agency expects that a Congressional override of this tentative determination would have been far clearer, given NHTSA's general authority and role in determining that adequate level of safety. Moreover, neither of the two categories of repeal by implication apply here because there is a way to harmonize § 24212 and the Safety Act, and § 24212 does not ''cover the whole subject matter'' of the Safety Act and is not clearly intended as a substitute. Therefore, we read paragraphs (a) and (b) to permit NHTSA to amend FMVSS No. 108 to impose requirements more stringent than SAE J3069 as long as those requirements are not inconsistent with SAE J3069.

Next, we do not believe the specific mention of § 30111 in paragraph (c), and the absence of such an explicit reference to § 30111 in paragraphs (a) or (b), should be read to suggest that Congress intended the § 30111 criteria to apply *only* to subsequent revisions of FMVSS No. 108 (*i.e.,* amendments to FMVSS No. 108 after NHTSA completes the ADB rulemaking mandated in paragraph (b)). The Agency acknowledges that, when Congress includes particular language in one section of a statute and omits it in another section of that statute, one canon of statutory construction (sometimes referred to as *expressio unius est exclusio alterius*) holds that Congress acts intentionally and purposely in the disparate inclusion or exclusion.[46] However, to begin with, this canon is not clearly applicable here because paragraph (b) directs the agency to ''amend[ ]'' ''Standard 108.'' Because an FMVSS is required to meet the § 30111 criteria, paragraph (b) implicitly references § 30111, including, among other things, the requirement that the standard meet the need for safety.

Moreover, to construe the reference to § 30111 in paragraph (c) and the omission of such an explicit reference in paragraph (b) as implying that the omission in (b) was intentional and evinced a Congressional intent that the Safety Act not apply to the ADB rulemaking would be to read paragraph (c) as implicitly repealing the Safety Act in this instance. Courts have recognized that it is especially inappropriate to apply the *expressio* canon when its application would result in an implied repeal, explaining ''when one possible

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[38] 49 U.S.C. 30111(a).

[39] Public Law 104–113, 110 Stat. 775 (1996). *See* Section X, Rulemaking Analyses and Notices.

[40] *J.E.M. AG Supply, Inc.* v. *Pioneer Hi-Bred Int'l, Inc.,* 534 U.S. 124, 143–144 (2001) (''[W]hen two statutes are capable of coexistence, it is the duty of the courts, absent a clearly expressed congressional intention to the contrary, to regard each as effective.'') (quotations and citations omitted).

[41] *See* Norman J. Singer & Shambie Singer, 2B Sutherland Statutory Construction § 51:2 (7th ed.) (''Courts assume that a legislature always has in mind previous statutes relating to the same subject when it enacts a new provision. In the absence of any express repeal or amendment, the new provision is presumed to accord with the legislative policy embodied in those prior statutes[.]''). *See also, e.g., U.S.* v. *City of New York,* 359 F.3d 83, 98 (2nd. Cir. 2004) (''The courts are not at liberty to pick and choose among congressional enactments, and when two statutes are capable of co-existence, it is the duty of the courts, absent a clearly expressed congressional intention to the contrary, to regard each as effective.'') (citations and quotations omitted).

[42] *Nat'l Ass'n of Home Builders* v. *Defenders of Wildlife,* 551 U.S. 644, 662 (2007) (quotations, alterations, and citations omitted). *See also, e.g., Branch* v. *Smith,* 538 U.S. 254, 273 (2003) (''We have repeatedly stated, however, that absent a clearly expressed congressional intention, repeals by implication are not favored[.]'') (citations and quotations omitted); *Athey* v. *U.S.,* 123 Fed. Cl. 42, 52 (2015) (''[T]the law is clear that repeals by implication are not favored absent clear congressional intent[.]'') (quotations and citations omitted).

[43] *J.E.M. AG Supply, Inc.,* 534 U.S. at 142.

[44] *Branch,* 538 U.S. at 273 (citations and quotations omitted). *See also, e.g., Carcieri* v. *Salazar,* 555 U.S. 379, 395 (2009) (same); *Nat'l Ass'n of Home Builders,* 551 U.S. at 662 (''We will not infer a statutory repeal unless the later statute expressly contradict[s] the original act or unless such a construction is absolutely necessary . . . in order that [the] words [of the later statute] shall have any meaning at all.'') (quotations and citations omitted, alterations in original); *J.E.M. AG Supply, Inc.,* 534 U.S. at 142–43 (''The only permissible justification for a repeal by implication is when the earlier and later statutes are irreconcilable.'').

[45] *Radzanower* v. *Touche Ross & Co.,* 426 U.S. 148, 154 (1976). *See also N.Y. Republican State Comm.* v. *SEC,* 927 F.3d 499, 507 (D.C. Cir.2019) (quoting *Radzanower*).

[46] *See, e.g., Cheney Railroad. Co., Inc.* v. *ICC,* 902 F.2d 66, 68 (D.C. Cir. 1990) (''[E]xplicit direction for something in one provision, and its absence in a parallel provision, implies an intent to negate it in the second context.'') (quotations and citations omitted). *But see, e.g., Carter* v. *Office of Workers' Comp. Programs,* 751 F.2d 1398 (D.C. Cir. 1985) (''That maxim has force, however, only when there is no apparent reason for the inclusion of one disposition and the omission of a parallel disposition except the desire to achieve disparate results'').

interpretation of a statutory provision has the potential to render another provision inert . . . the canon's relevance and applicability must be assessed within the context of the entire statutory framework.'' [47] Accordingly, ''the canon is a poor indicator of Congress' intent'' when ''counterveiled by a broad grant of authority contained within the same statutory scheme.'' [48] A negative inference, therefore, should only be drawn if there is an ''unambiguous suggest[ion that] Congress intended to strip'' an agency of its counterveiling ''broad grant of authority.'' [49] As we have discussed above, such an intent is not present here. Further, it would not make sense to say that § 30111 applies to revisions to the 2016 version of SAE J3069 but not to the 2016 version itself. And it would be odd to view paragraph (c) as a limitation on agency authority when it expressly reserves agency authority. We therefore conclude that paragraph (c) should not be read to preclude NHTSA from issuing a final rule that imposes requirements beyond SAE J3069 if the agency concludes that SAE J3069 does not meet the need for safety under the Safety Act.

In addition, we are unaware of any instances in which Congress required NHTSA to issue or amend an FMVSS to enact or incorporate by reference a consensus standard without reference to the § 30111 criteria. The closest precedent of which we are aware is that the 1966 Safety Act directed NHTSA's predecessor agency to issue initial FMVSS ''based on existing safety standards.'' [50] Those ''existing standards'' ''were understood to be the [General Services Administration] standards then in effect for government vehicles.'' [51] However, the initial standards were not required to be identical to those ''existing standards,'' only to be ''based on'' them; consistent with this, the initial FMVSS did not simply copy existing standards.[52] Moreover, the 1966 Act went on to direct that, after issuing the initial FMVSS, the agency ''shall issue new and revised Federal motor vehicle safety standards under this title'' within two years from the enactment of the Act.[53] This shows, if anything, a general Congressional preference for providing NHTSA with at least some discretion over the content of the standards.

Today's final rule is therefore consistent with the § 24212 mandate. The rule amends FMVSS No. 108 to allow for the use of ADB systems. While NHTSA has modified the proposal to follow SAE J3069 more closely where warranted, the final rule includes some requirements (such as test scenarios) not included in SAE J3069. NHTSA has concluded that these deviations from SAE J3069 are—pursuant to the Safety Act—necessary for the final rule to meet the need for motor vehicle safety, because SAE J3069 does not adequately address the safety needs of visibility and glare prevention. The final rule, however, does not conflict with ADB systems that meet the performance requirements of SAE J3069 because a headlamp designed to comply with NHTSA's final rule can also be designed to conform with SAE J3069. The differences between the final rule and SAE J3069, as well as our test data on the performance of ADB systems tested to both the final rule and J3069 are described in detail throughout this preamble.

V. Summary of the NPRM

Proposed Requirements and Test Procedures

NHTSA tentatively concluded that because ADB technology has the potential to provide safety benefits in preventing collisions with pedestrians, animals, and roadside objects—while not increasing glare—FMVSS No. 108 should be amended to permit it.

NHTSA further tentatively concluded that to ensure ADB systems operate safely, the standard should be amended to include additional requirements specific to ADB systems. The existing headlamp requirements (including the requirements for semiautomatic beam switching devices) have two features that make them ill-suited to evaluate ADB performance. First, they are component-level requirements that involve testing the performance of an individual headlamp in a laboratory; they do not evaluate the performance of the headlamp system on the vehicle as it is driven on the road, which is particularly important for ADB because it adapts to roadway conditions. Second, the preexisting semiautomatic beam switching device requirements are only related to which of two beams (upper or lower) are appropriate. They do not contemplate an adaptive beam that is capable of dynamically producing many different beam patterns in response to vehicles and other object in the road. For example, the sensitivity test for semiautomatic beam switching devices currently tests the ability of the device to switch between a lower and upper beam when exposed to a light source in a controlled laboratory setting.

These requirements would accordingly not evaluate the performance of an ADB system as it adapts the beam when driven on an actual road in the presence of other vehicles. In particular, because ADB systems use relatively new technology to dynamically change the beam to accommodate the presence of other vehicles, they have the potential—if not designed otherwise—to glare other motorists. This could create safety risks for those other motorists. We therefore proposed amending the standard to include vehicle-level track-tested requirements specifically tailored to evaluate whether an ADB system functions safely and limits glare for other motorists. We also proposed a set of component-level laboratory-tested requirements to ensure that ADB systems always provide adequate visibility; some of these requirements were also related to glare. Below, we briefly summarize the proposed requirements. For additional information and detail, the reader is referred to the NPRM.[54]

[47] *Adirondack Med. Ctr.* v. *Sebelius,* 740 F.3d 692, 697 (D.C. Cir. 2014).

[48] *Id.*

[49] *Id.* at 697–698. *See also id.* at 697 (''The *expressio unius* canon is a feeble helper in an administrative setting, where Congress is presumed to have left to reasonable agency discretion questions that it has not directly resolved . . . The dizzying array of other canons that could shift the analysis one way or another—*e.g.,* . . . the presumption against implied repeals, militates against finding unambiguous congressional intent here'') (quotations and citations omitted). *See also, e.g., Cheney Railroad. Co., Inc.* at 69–69 (same); *U.S.* v. *City of New York,* 359 F.3d 83, 98 (2nd. Cir. 2004) (''[S]ince not every silence is pregnant, *expressio unius* is an uncertain guide to interpretation.'') (quotations and citations omitted).

[50] National Traffic and Motor Vehicle Safety Act of 1966, Public Law 89–563, 103(h) (1966) (''The Secretary shall issue initial Federal motor vehicle safety standards based upon existing safety standards on or before January 31, 1967. On or before January 31, 1968, the Secretary shall issue new and revised Federal motor vehicle safety standards under this title.'').

[51] Jerry L. Mashaw & David L. Harfst, *From Command And Control To Collaboration And Deference: The Transformation Of Auto Safety Regulation,* 34 Yale J. on Reg. 167, 199 n. 106 (2017).

[52] *See, e.g.,* 32 FR 10812 (July 22, 1967) (NPRM for initial FMVSS 109) (''In drafting these proposed standards, the Bureau considered the comments received in response to the Advance Notice of Proposed Rule Making published in the **Federal Register** on February 3, 1967 (32 FR. 2417) and consultation with the National Motor Vehicle Safety Advisory Council and with representatives of the Federal Trade Commission, the General Services Administration, the National Bureau of Standards, and tire and auto industry associations, both domestic and foreign.'').

[53] National Traffic and Motor Vehicle Safety Act of 1966, Public Law 89–563, 103(h) (1966).

[54] *See* pp. 51777–51789.

Vehicle-Level Track Test To Evaluate Glare

The centerpiece of the proposal was a vehicle-level track test to evaluate ADB performance in recognizing and limiting glaring for other vehicles. We proposed evaluating the performance of an ADB-equipped vehicle (test vehicle) in a variety of different types of interactions with either an oncoming or preceding vehicle (referred to as a ''stimulus'' vehicle because it stimulates a response from the ADB system). The stimulus vehicle would be equipped with sensors near the driver's eyes (or rearview mirrors) to measure the illuminance from the ADB headlamps. The illuminance falling on the stimulus vehicle would be measured and recorded throughout the test run.

To evaluate ADB performance, we proposed a set of maximum allowed illuminance values (glare limits). These are numeric illuminance values that would be the maximum illuminance the ADB system would be permitted to cast on the stimulus vehicle during the track test. See Table 2. We proposed sampling illuminance values throughout the proposed measurement ranges (also referred to in this document as measurement distances). The proposed compliance criterion was that any recorded illuminance value greater than the applicable glare limit would be considered a test failure, except that values above the applicable glare limit lasting no longer than 0.1 second(s) or over a distance of no longer than 1 m would not be considered test failures. This adjustment was intended to allow for electric noise in the photometers (*i.e.,* any electrical signal whose source is not a result of changes in illuminance) as well as momentary changes in vehicle pitch.

TABLE 2—PROPOSED MAXIMUM ILLUMINANCE CRITERIA

Measurement distance (m)	Maximum illuminance oncoming direction (lux)	Maximum illuminance same direction (lux)
15.0 to 29.9	3.1	18.9
30.0 to 59.9	1.8	18.9
60.0 to 119.9	0.6	4.0
120.0 to 220	0.3	N/A

The proposal specified a broad set of potential stimulus vehicles. We proposed using any FMVSS-certified vehicle from the five model years preceding the model year of the test vehicle, subject to a specified height constraint that was intended to exclude unusually high- or low-riding vehicles.

We proposed a variety of scenarios to dynamically assess ADB system performance. We proposed three basic maneuvers for testing compliance: oncoming (where the test and stimulus vehicles approach each other traveling in opposite directions); same direction/same lane (where the stimulus vehicle precedes the test vehicle in the same lane); and same direction/passing with one vehicle (either the stimulus or test vehicle) traveling faster than and overtaking the other vehicle. We also proposed scenarios where the stimulus vehicle was stationary.

We proposed to test each type of maneuver at various test and stimulus vehicle speeds (from 0 to 70 mph) on both a straight test path and on left and right curves of varying radii: A ''short'' curve (with radii from 98 m to 116 m), a ''medium'' curve (223 m to 241 m), and a ''large'' curve (335 m to 396 m). The proposal also included a variety of related test procedures and conditions, such as adjusting for ambient light, the condition of the road surface, and the number of lanes. The proposed glare limits and test procedures were based on extensive agency research and testing.[55]

Component-Level Laboratory Photometric Testing

The NPRM also proposed component-level laboratory-tested headlamp photometry requirements for the adaptive beams. We proposed to require that the part of the adaptive driving beam that is cast near other vehicles (the area of reduced intensity) must conform to the Table XIX lower beam photometry requirements (*i.e.,* maxima and minima). We similarly proposed that the part of the adaptive beam cast onto areas of the roadway not occupied by other vehicles (area of unreduced intensity) conform with the Table XVIII upper beam photometric maxima and minima.[56] These proposed requirements were intended to act as a complement to the track test in ensuring other motorists were not glared (the photometric maxima) and to ensure a minimum level of visibility (the photometric minima), an aspect not evaluated in the track test.

Other System Requirements

The standard has long specified a variety of requirements specifically for semiautomatic beam switching devices (in S9.4.1 and S14.9.3.11). The proposal extended some but not all of these requirements to ADB systems.

The proposal extended the existing requirements for manual override, fail-safe operation (*i.e.,* a failure of the automatic control portion of the device must not result in loss of manual beam switching control), and an automatic dimming indicator.[57]

The proposal did not extend the existing semiautomatic beam switching device requirements for lens accessibility or mounting height. It also did not extend any of the existing physical test requirements to ADB systems.[58] These include the sensitivity test mentioned above, as well as tests such as a corrosion test and a temperature test. We proposed not subjecting ADB systems to these requirements for two reasons. First, as noted above, those requirements date from the 1960s and, accordingly, many of them (such as the sensitivity test) do not usefully extend to modern ADB technologies. Second, we tentatively believed that market forces would ensure an ADB system's switching device will operate robustly with respect to environmental conditions.

We also proposed additional requirements for ADB systems that are not currently required for semiautomatic beam switching devices. This included requirements related to fault detection and a requirement that the ADB system must produce a lower beam at speeds below 25 mph.

Regulatory Alternatives

The NPRM identified two main alternatives to the proposed

[55] *See* Section VII, NHTSA Research and Testing.

[56] While the NPRM used the terms ''dimmed area'' and ''undimmed area,'' this document and the final regulatory text use the terms ''area of reduced intensity'' and ''area of unreduced intensity'' to more closely follow the terminology in SAE J3069.

[57] S9.4.1.

[58] S14.9.3.11.

requirements and test procedures: the ECE ADB requirements and SAE J3069. As noted earlier, however, the ECE requirements are not sufficiently objective to be incorporated into an FMVSS. Accordingly, the main regulatory alternative we considered was SAE J3069.

The proposal followed SAE J3069 in many respects but deviated from it in several significant ways. These differences are briefly discussed below and summarized in Table 3. The proposal identified the deviations from SAE J3069 and provided a tentative justification for those deviations. The proposal sought comment on the relative merits of the proposal and SAE J3069 in all of these respects.

Vehicle-level track test to evaluate glare. Both the proposal and SAE J3069 specified a vehicle-level track test to evaluate glare. The proposed glare limits were essentially identical to the glare limits in SAE J3069. The proposed track test, however, significantly differed from the SAE standard in four main ways: it utilized actual stimulus vehicles, not test fixtures; it proposed actual curves, not simulated curves; it included a large set of test scenarios, including scenarios with a moving stimulus vehicle, and complex vehicle maneuvers (*e.g.,* passing scenarios); and, finally, it specified different data measurement and allowance procedures.

Component-level laboratory photometric testing. The proposal applied more of the current component-level photometric requirements to the ADB system to regulate both glare and visibility. With respect to glare, while we proposed to require that the area of reduced intensity not exceed the current lower beam maxima, and the area of unreduced intensity not exceed the current upper beam maxima, SAE J3069 requires only the former. With respect to visibility, we proposed that the area of reduced intensity meet the lower beam minima and the area of unreduced intensity meet the upper beam minima; SAE J3069 only specifies the lower beam minima for the area of unreduced intensity.

Other system requirements. The proposed telltale and malfunction requirements were similar to the requirements in SAE J3069. The proposal mainly differed from SAE J3069 in specifying a minimum activation speed, and in not applying any physical test requirements to ADB systems.

TABLE 3—SUMMARY OF MAJOR DIFFERENCES BETWEEN THE NPRM AND SAE J3069

Test elements	NPRM	SAE J3069
Vehicle-level track test to evaluate glare:		
Stimulus	Broad range of stimulus vehicles	Test fixtures.
Test track geometry	Specifies actual curves of various sizes	Specifies a straight path and uses fixture placement to simulates curves.
Test scenarios	Specified scenarios with moving and stationary stimulus vehicles and a variety of road geometries.	Specified smaller set of less complex scenarios.
Data measurement and glare limit applicability.	Applies the glare limits throughout the measurement range specified for each scenario.	Applies the glare limits only at 30 m, 60 m, 120 m, and 155 m.
	Sampling rate of at least 200 Hz	Sampling rate of at least 10 Hz.
Compliance criteria	Specified allowance for momentary glare exceedances.	Allows measured illuminance to exceed an applicable glare limit if it does not exceed 125% of the lower beam illuminance under the same conditions.
Component-level laboratory test:		
Area of reduced intensity	Specified lower beam (Table XIX) minima and maxima.	Specifies lower beam maxima.
Area of unreduced intensity	Specified upper beam (Table XVIII) minima and maxima.	Specifies lower beam minima.
Minimum activation speed	25 mph	Not specified.

VI. Overview of Comments

NHTSA received 217 comments on the proposal. This included comments from 32 vehicle and equipment manufacturers, industry groups,[59] and test laboratories, as well as 5 comments from public interest groups. We also received comments from 19 owner/operators of drive-in movie theatres, including the United Drive-In Theatre Owners Association. The balance of the comments was from individual members of the public. An index of comments cited in this preamble along with the comment identification numbers is provided in Appendix D.

All industry and public-interest commenters supported amending the standard to allow the introduction of ADB systems. A majority of the industry commenters and the Competitive Enterprise Institute (CEI) strongly supported closer harmonization with SAE J3069 (or with the ECE requirements).[60] These comments focused primarily on costs from disharmonization due to the resulting need for market-specific hardware, components, and/or software. Several commenters argued that the increased costs associated with the proposal would increase consumer costs and hinder ADB adoption and the concomitant safety benefits. Several industry commenters and the Insurance Institute for Highway Safety (IIHS) stated that the proposal did not maximize overall benefits because it prioritized glare prevention over enhanced visibility, and opined that the final rule should place greater weight on the benefits associated with enhanced visibility.

Drive-in theatre owner/operators stressed the importance of the ADB system providing a means for manual headlamp control. Many indicated some level of support for the rule (assuming

[59] Global Automakers and the Alliance of Automobile Manufacturers each commented during the comment period. After the comment period had ended, they merged to form the Alliance for Automotive Innovation. The Alliance for Automotive Innovation subsequently commented on this rulemaking. Comments from each of these three entities are summarized and identified by reference to the entity that submitted the comment.

[60] SAE, on behalf of the SAE lighting systems group (which developed SAE J3069) submitted a detailed comment that touched on harmonization as well as a variety of other issues. A majority of industry commenters explicitly supported SAE's comments.

it provides for manual control). The majority of comments from individual members of the public supported the proposal, often on the grounds that it would likely reduce glare or increase safety. A number of these commenters noted the availability of this technology in Europe. Several individuals who opposed the proposal thought that it would increase glare.

With respect to specific aspects of the proposal, while most industry and public-interest groups supported a track test, many of these commenters argued that the specific track test in the proposal was impracticable and excessively burdensome, especially with respect to the number and complexity of test scenarios and the use of stimulus vehicles instead of fixtures. These commenters especially focused on the broad set of proposed stimulus vehicles. Some industry commenters also raised concerns with the objectivity and repeatability of the test procedure. Many industry commenters also opposed the use of a curved test path; they recommended that curved test paths be simulated with the placement of test fixtures relative to a straight test path. Many of these commenters also stated that the final rule should provide less stringent compliance criteria and provide a greater allowance for illuminance levels above the proposed glare limits (for example, by evaluating the ratio of ADB illuminance to lower beam illuminance or allowing additional time for an ADB system to react to the test stimulus). Industry commenters also raised issues about other aspects of the test procedures, such as data filtering and vehicle pitch.

The agency also received comments about the proposed component-level laboratory test requirements. A few industry commenters (including SAE) contended that component-level testing is unnecessary, while some industry members and public-interest groups supported aspects of the laboratory test requirements. Many industry commenters pointed out the need for a transition zone between areas of reduced and unreduced intensity. Multiple industry commenters and some public-interest commenters recommended not requiring the lower beam minima in areas of reduced intensity in order to realize the full glare-reducing potential of ADB technology. Several industry commenters also suggested specifying the lower beam minima, not the upper beam minima, in areas of unreduced intensity. Some industry and public-interest commenters supported increasing the maxima in an area of unreduced intensity to the higher level allowed in Europe. Several industry commenters requested NHTSA clarify certain terms in the regulatory text.

We also received comments about other system requirements, including the minimum ADB activation speed, operator controls, telltales, and headlamp mounting requirements.

VII. NHTSA Research and Testing

Research Before the NPRM

Two NHTSA research studies formed the basis for the NPRM. (This research was necessary because, among other things, the current photometry requirements are laboratory-tested component-level requirements, not vehicle-level requirements tested on a track.) In 2012, the agency published a study (Feasibility Study) [61] exploring the feasibility of new approaches to regulating vehicle lighting performance, including headlamp photometry. Among other things, the study presented vehicle-based headlamp photometry requirements derived from the current component-level photometry requirements in Tables XVIII (upper beam) and XIX (lower beam). This included vehicle-based photometry requirements to ensure that other vehicles are not glared. NHTSA then built on this effort by developing a vehicle-level track test to evaluate whether an ADB system conforms with the derived photometry requirements for glare prevention (2015 ADB Test Report).[62] For more information on this research, the reader is referred to the NPRM [63] and the docketed research reports.

Research After the NPRM

After reviewing the comments on the NPRM, NHTSA explored opportunities to modify the proposal to resemble SAE J3069 more closely, while at the same time retaining a sufficient degree of realism the agency believes the SAE standard lacks. Most significantly, NHTSA explored using stationary test fixtures instead of dynamic stimulus vehicles. NHTSA developed and fabricated test fixtures that were similar to the fixtures specified in SAE J3069 but differed in some important respects (this is discussed below). NHTSA developed a modified version of the NPRM test procedure (including a simplified set of test scenarios) using the test fixtures. NHTSA then carried out a series of preliminary and full-scale vehicle tests to develop and validate those test procedures. Those test procedures are the same test procedures specified in this final rule. The research also documented testing details to support the laboratory test procedure manual that will be used by NHTSA's Office of Vehicle Safety Compliance (OVSC).[64]

NHTSA used the following three vehicles in the test program.

- 2019 Ford Fusion equipped with FMVSS-certified halogen headlamps;
  - Selected because it was a high-sales vehicle with halogen headlamps compliant with FMVSS No. 108, and the vehicle was readily available at NHTSA's Vehicle Research and Testing Center (VRTC).
- 2016 Volvo XC90 equipped with FMVSS-certified LED headlamps;
  - Selected because it was equipped with LED headlamps rated ''Acceptable'' by IIHS, and the vehicle was readily available at NHTSA's VRTC.
- 2018 Lexus NX300 (European mass production model) equipped with ADB LED headlamps modified by the manufacturer to be consistent with a visually optically aligned right (VOR) beam pattern used in the United States.
  - Selected because it was equipped with an ADB system, modified to project lower and upper beam patterns compliant with FMVSS No. 108.

Preliminary Test Development and Validation

NHTSA created a test fixture to accommodate both the NHTSA and SAE test procedures. The test fixture positioned a vertical array of illuminance meter light sensors (*i.e.,* receptor heads) in specified positions and provided accurate positioning for the various NHTSA and SAE lamp configurations. The configurations included stimulus lamps specified in today's final rule: MY 2018 Ford F–150 headlamps and taillamps, MY 2018 Toyota Camry headlamps and taillamps, and a MY 2018 Harley Davidson motorcycle taillamp,[65] and the lamps

[61] Michael J. Flannagan & John M. Sullivan. 2011. Feasibility of New Approaches for the Regulation of Motor Vehicle Lighting Performance. Washington, DC: National Highway Traffic Safety Administration (NHTSA–2018–0090–0002). *See also* 77 FR 40843 (July 11, 2012) (request for comments on the report).

[62] Elizabeth Mazzae, G.H. Scott Baldwin, Adam Andrella, & Larry A. Smith. 2015. Adaptive Driving Beam Headlighting System Glare Assessment, DOT HS 812 174. Washington, DC: National Highway Traffic Safety Administration (NHTSA–2018–0090–0003).

[63] *See* NPRM, pp. 51773–51774.

[64] The OVSC laboratory procedures are not part the regulatory text. Published separately by OVSC, they are intended to provide laboratories contracted by NHTSA with additional guidelines for obtaining compliance test data.

[65] To represent a motorcycle headlamp, this testing used a 5.75 inch bullet headlamp kit from a 2018 Harley Davidson Roadster using an HB2 replaceable light source (part #68593–06). After this testing and before the publication of this final rule,

specified in SAE J3069 intended to simulate headlamps and taillamps. This single test fixture was able to accommodate needed light sensor configurations for both oncoming and same direction test scenarios.

As an important initial step as part of the research, NHTSA evaluated the stability of the measured illuminance values without a test vehicle present to determine the level of noise (if any) in the measurement system that was not dependent on the vehicle being tested. For each stimulus lamp condition, illuminance data were recorded for a period of 30 seconds in typical test conditions. The results indicated that both the analog and digital data, measured at frequency over time, demonstrated low standard deviations for each of the receptor heads for each of the ten test lamp conditions, suggesting very little system noise or fluctuation from ambient conditions. In fact, each lamp condition had at least two receptor heads that exhibited no variability (standard deviation = 0) in the digital data. Thus, the illuminance meter outputs appeared to be stable.

Testing of the three vehicle models with headlighting systems operating in lower beam mode showed that the measurement system and the headlamp types tested, halogen and LED, were compatible with the test equipment (*i.e.,* no abnormalities in measurements were observed based upon the type of headlighting system).

NHTSA performed tests to assess whether test scenarios could be executed with sufficiently steady vehicle dynamics such that, in lower beam mode, headlamp illumination measured during the dynamic test scenario would match that measured in the same location with the vehicle stationary. Measured illuminance and pitch data values were extracted for both dynamic and static test trials at specific scenario path points corresponding to an end of a glare limit distance range. This study found that dynamically-influenced variation was not a major contributor to variability in the test. Pitch was found to have a major influence on illuminance measurements; however, the sources of pitch variance were primarily static in nature (resulting from waviness in the track pavement) and not dynamic (acceleration, or dynamic oscillations).

Full-Scale Validation Testing

After successfully completing this preliminary evaluative testing, NHTSA proceeded to validate the final test procedure by performing three sets of full-scale tests.

In the first set of tests, the ADB-equipped Lexus NX300 was subjected (in ADB mode) to the final rule test procedure as well as the SAE test procedure. We also evaluated ADB system performance using a full F–150 vehicle as a stimulus instead of a test fixture. In general, the ADB system installed on the tested vehicle responded similarly to the test fixture as it did to the full stimulus vehicle.

In the second set of tests, the agency subjected all three test vehicles with headlighting systems operating in lower beam mode to the NHTSA ADB test procedure. Measured illuminance values were evaluated with respect to the glare limit criteria. The lower beams of the Ford Fusion had passing results below the glare limits in all test scenarios, while the lower beams of the Lexus NX300 did not pass several of the test scenarios when illuminance values were compared to the glare limits. The Volvo lower beams performed well under the limits for the straight and left curve scenarios, but exceeded the limits finalized today for the right curves.

In the third set of validation tests, the agency conducted a series of tests using the 2016 Volvo XC90 with the lower beams activated to determine the repeatability of measured illuminance values and test outcomes for both the final rule and SAE test procedures. Testing involving multiple runs of each test scenario was conducted to permit different types of repeatability analyses, including same night (gauge); different night (test procedure); and different headlamp aiming technician (reproducibility). The repeated testing was performed to support an assessment of the repeatability of measured illuminance values and test outcomes for the final rule's ADB test procedure (as well as the SAE test procedure). A summary of the agency's repeatability analysis is presented in Section VIII.C.11. The full results of NHTSA's test procedure repeatability and reproducibility analyses are detailed in the repeatability report docketed with this final rule.[66] The test procedures reported in that document are the same as the procedures used in the first and second sets of validation tests described above. NHTSA is also docketing a full test report more fully describing the agency's testing.[67]

VIII. Final Rule and Response to Comments

A. Summary of the Final Rule and Modifications to the NPRM

The major components of the final rule are summarized below, including the most significant differences between the final rule and the NPRM. Less significant changes are discussed in the appropriate sections of the preamble.

Vehicle-Level Track Test To Evaluate Glare

The final rule retains the track test but departs from the proposal in a few ways.

Stimulus test fixtures instead of stimulus vehicles. The final rule specifies the use of test fixtures instead of stimulus vehicles. This change will result in a less complex test more closely harmonized with SAE J3069, while still ensuring that ADB systems operate safely. While the test fixture specifications follow the SAE J3069 specifications with respect to the locations of the photometers and stimulus lamps, the final rule requires the use of more real-world representative lighting by specifying original equipment vehicle headlamps and taillamps.

More efficient test scenarios. The final rule substantially simplifies the number and complexity of test scenarios. Because the final rule specifies stimulus test fixtures and not stimulus vehicles, all scenarios involving a moving stimulus vehicle (*e.g.,* passing scenarios) were eliminated. While the final rule retains oncoming and preceding scenarios[68] with a curved test path, the agency modified the measurement distances and eliminated some scenarios entirely because they were deemed unnecessary. With respect to oncoming scenarios, the straight and large left curve scenarios are retained essentially as proposed, and the short-radius right curve scenario has been eliminated. The final rule retains scenarios with other proposed curves but truncates the distances at which ADB illuminance is evaluated. With respect to preceding glare scenarios, the final rule retains (with truncated measurement distances) the straight and medium left curve scenarios. These modifications, summarized in Table 4, respond to comments that expressed concern about the complexity of the proposed testing. NHTSA believes that

that part went out of production and has been replaced with part #68297–05B.

[66] Mazzae, E.N., Baldwin, G.H.S., Satterfield, K., & Browning, D.A. 2021. Adaptive Driving Beam Headlamps Test Repeatability Assessment. Washington, DC: National Highway Traffic Safety Administration.

[67] Mazzae, E.N., Baldwin, G.H.S., Satterfield, K., Browning, D.A., & Andrella, A.T. 2021. Adaptive Driving Beam Headlighting Systems Rulemaking Support Testing. Washington, DC: National Highway Traffic Safety Administration.

[68] The final rule regulatory text uses the terms ''same direction'' and ''opposite direction'' to reflect that the final rule uses fixtures and not stimulus vehicles.

the finalized test scenarios meet the need for motor vehicle safety by containing a broad range of realistic road geometries—including curves—and vehicle interactions while addressing possible redundancies.

TABLE 4—SUMMARY OF MODIFICATIONS TO THE PROPOSED TRACK TEST SCENARIOS

NPRM					Final rule			
NPRM test #	Measurement distance (m)	Stimulus vehicle speed (mph)	Test vehicle speed (mph)	Radius (size-direction) [69]	Final test #	Measurement distance (m)	Test vehicle speed (mph)	Radius (size-direction) [70]
Oncoming (adjacent lane):								
1	15–220	60–70	60–70	Straight		Dropped		
2	15–220	0	60–70	Straight	1	15–220	60–70	Straight
5a	15–220	25–30	25–30	Small—R		Dropped		
5b	15–220	25–30	25–30	Small—L				
6a	15–220	0	25–30	Small—R				
6b	15–220	0	25–30	Small—L	2	15–59.9	25–30	Small—L
7a	15–220	40–45	40–45	Med—R		Dropped		
7b	15–220	40–45	40–45	Med—L				
8a	15–220	0	40–45	Med—R	5	15–50	40–45	Med—R
8b	15–220	0	40–45	Med—L	3	15–150	40–45	Med—L
11a	15–220	50–55	50–55	Large—R		Dropped		
11b	15–220	50–55	50–55	Large—L				
N/A	N/A	N/A	N/A	N/A	6	15–70	50–55	Large—R
N/A	N/A	N/A	N/A	N/A	4	15–220	50–55	Large—L
Same Direction Same Lane:								
1	15–220	60–70	60–70	Straight		Dropped		
5a	15–220	25–30	25–30	Small—L				
5b	15–220	25–30	25–30	Small—R				
7a	15–220	40–45	40–45	Med—L				
7b	15–220	40–45	40–45	Med—R				
11a	15–220	50–55	50–55	Large—L				
11b	15–220	50–55	50–55	Large—R				
Same Direction Adjacent Lane Fast ADB:								
2	15–119.9	0	60–70	Straight	7	15–100	60–70	Straight
3	15–119.9	40–45	60–70	Straight		Dropped		
6a	15–119.9	0	25–30	Small—R				
6b	15–119.9	0	25–30	Small—L				
8a	15–119.9	0	40–45	Med—R				
8b	15–119.9	0	40–45	Med—L	8	15–100	40–45	Med—L
9a	15–119.9	30–35	40–45	Med—R		Dropped		
9b	15–119.9	30–35	40–45	Med—L				
13a	15–119.9	40–45	50–55	Large—R				
13b	15–119.9	40–45	50–55	Large—L				
Same Direction Fast Stimulus:								
4	30–119.9	60–70	40–45	Straight		Dropped		

Data measurement and allowances. The final rule makes some changes to how NHTSA will measure and evaluate ADB system illuminance. NHTSA has added a specification for a data filter. It has deleted the proposed International Roughness Index parameter and replaced it with an explicit adjustment for vehicle pitch. The proposed 0.1 second (or 1 m) allowance for momentary glare exceedances has been modified by deleting the distance component and more clearly specifying how this adjustment will be applied. The final rule also includes additional specifications for the photometer.

Component-Level Laboratory Photometric Testing

The final rule retains the proposed requirements for component-level laboratory testing but has modified them to give manufacturers greater design flexibility.

Defining ''adaptive driving beam'' as a new beam type. The final rule defines a new beam type, an ''adaptive driving beam,'' as ''a beam consisting of area(s) of reduced intensity, unreduced intensity, and transition zone(s).'' We eliminated the proposed regulatory text that referred to an area of reduced intensity as being ''designed to be directed towards oncoming or preceding vehicles'' and to an area of unreduced

[69] Small = 98 m–116 m; Med = 223 m–241 m; Large = 335 m–396 m.

[70] Small = 85 m–115 m; Med = 210 m–250 m; Large = 335 m–400 m.

intensity as being directed ''in other directions.'' The final rule is intended to provide manufacturers flexibility to decide which portions of the roadway will receive an area of reduced or unreduced intensity, subject to several requirements or constraints (such as the track test that evaluates glare). This will enable systems to provide an area of reduced intensity not only to prevent glare to oncoming or preceding vehicles, but also in other situations in which reduced intensity would be beneficial (for example, towards retroreflective signs, or on a wet roadway).

Transition zone. In response to comments, the final rule also allows for a 1-degree transition zone between an area of reduced intensity and an area of unreduced intensity.

Requirements for areas of reduced intensity. The final rule retains the requirement that an area of reduced intensity not exceed the lower beam maxima in order to help ensure that other motorists are not subject to glare. It also continues to require that an area of reduced intensity meet the lower beam minima; NHTSA believes this requirement is important because neither the proposal nor the final rule include any ''false positive'' tests to ensure that an ADB system does not mistakenly dim the beam in the absence of any oncoming or preceding vehicles.

Requirements for areas of unreduced intensity. The final rule follows the NPRM and specifies the existing upper beam minima and maxima. In response to comments that suggested not specifying the upper beam minima in this area (in order to allow less illumination in situations in which it would be appropriate, such as towards a retroreflective sign), we have, as explained above, eliminated the proposed regulatory text that implied that an area of unreduced intensity should be directed towards areas of the roadway not occupied by other vehicles. This will allow manufacturers to design systems that provide an area of reduced intensity to areas of the road that are not occupied by other vehicles but for which it may be appropriate to provide less illumination than would be required by the upper beam minima.

As was proposed, the final rule does not adopt the higher ECE upper beam maxima. While NHTSA agrees with the commenters that higher intensity upper beams might lead to potential safety benefits in the form of increased visibility in the absence of other road users, the agency remains concerned about the associated potential safety disbenefits, due to increased glare, that might result from higher intensity upper beams, particularly in situations in which an ADB system might not recognize and shade other vehicles.

Other System Requirements

ADB minimum activation speed. The final rule retains a minimum activation speed but this has been decreased from 25 mph to 20 mph to give greater flexibility to manufacturers wishing to provide for hysteresis in the system design.

Exemption from some horizontal aimability performance requirements. The final rule amends the headlamp horizontal aimability performance requirements to exempt ADB systems from many of the vehicle headlamp aiming device (VHAD) requirements. These requirements are not necessary for ADB systems and exempting ADB systems will lower costs and facilitate ADB deployment in the United States.

B. Interpretation of FMVSS No. 108 as Applied to ADB Systems

Prior to the publication of the NPRM, NHTSA had not directly addressed whether FMVSS No. 108 permits ADB systems. In the NPRM, we tentatively concluded that ADB systems are not currently permitted under the standard because they are part of the required headlamp system, and, as such, would not comply with at least some of the headlamp requirements.[71] We included this tentative interpretation in the NPRM because some manufacturers had argued that ADB systems should be considered supplemental lighting.[72]

In the NPRM we went on to also consider the status of ADB technology if we were, instead, to consider it supplemental equipment. We concluded that this still might not obviate the need for this rulemaking because it would be difficult for NHTSA to verify that the system did not impair the effectiveness of any of the required lighting. That is, whether an ADB system is functioning properly depends on whether it accurately detects oncoming and preceding vehicles in actual operation on the road, and there would be no way to test this under FMVSS No. 108 as the standard had existed prior to this final rule.

Comments

Several commenters (General Motors, LLC [GM], American Honda Motor Co., Inc. [Honda], Global Automakers [Global], Ford Motor Company [Ford], and the Alliance of Automobile Manufacturers [Alliance]) disagreed with NHTSA's proposed interpretation, and contended that ADB systems should be considered supplemental lighting.

Agency Response

The interpretation set out in the NPRM (which concerned the version of the standard in effect prior to this final rule) is now moot because the final rule amends the standard to expressly allow and regulate ADB systems. For the same reason, ADB systems can no longer be considered (as suggested by the commenters) ''supplemental'' lighting because the rule amends the standard to expressly allow ADB systems, while at the same time subjecting them to a variety of requirements expressly intended for and unique to these systems.[73]

C. Track Testing Requirements and Procedures

1. Practicability of Proposed Test Scenarios

The NPRM proposed a wide range of track test scenarios, including a large set of potential stimulus vehicles, varying road geometries (curves, straight paths), and varying vehicle speeds.[74] NHTSA tentatively concluded that the proposed ranges of stimulus vehicles and test scenarios were appropriate to ensure that an ADB system functions robustly

[71] For a more detailed discussion, *see* NPRM, 83 FR 51774–51777.

[72] FMVSS No. 108 specifies, for each class of vehicle, required and optional (if-equipped) lighting elements. The standard sets out various performance requirements for the required and optional lighting elements. The standard also allows vehicles to be equipped with lighting not otherwise regulated as required or optional equipment. This type of lighting equipment is referred to as ''supplemental'' or auxiliary lighting. Supplemental lighting is permitted if it does not impair the effectiveness of lighting equipment required by the standard. S6.2.1.

[73] The interpretation set out in the NPRM assumed that the adaptive beam would always be a ''lower beam'' under the version of the standard predating this final rule because a ''lower beam'' is defined in the standard as ''a beam intended to illuminate the road and its environs . . . when meeting or closely following another vehicle.'' This assumed that in the absence of other vehicles ADB systems would provide a full upper beam, and not an adaptive beam. However, some of the commenters pointed out that an adaptive beam (*i.e.,* less than a full upper beam) might also be provided in the absence of other vehicles (for example, in order to minimize glare to the driver from retroreflective signs). As we explain later in this preamble, the final rule allows for this type of beam design.

[74] The test matrix specifies ranges for the various test parameters. Other provisions in the final regulatory text also specify ranges of values at which various testing parameters may be set. The larger the range of values, the broader the parameters for which the vehicle much perform. Where a range of values is specified, the vehicle must be able to meet the requirements at all values within the range. In addition, the word ''any,'' used in connection with a range of values or set of items in the requirements, conditions, and procedures of an FMVSS means generally the totality of the items or values, any one of which may be selected by the agency for testing. *See* 49 CFR 571.4, Explanation of Usage.

and avoids glaring other drivers in a wide variety of real-world circumstances. The agency explained its concerns about a test procedure permitting an ADB system designed to accommodate only a narrow range of vehicles and explained that the proposed scenarios would require ADB systems to be able to negotiate a variety of real-world conditions. NHTSA tentatively concluded that the proposed testing was practicable but acknowledged that certain scenarios might be challenging for some ADB systems. The agency also explained its decision not to propose some common scenarios. For example, we explained that the proposal did not include testing ADB performance when approaching a vehicle at an intersection oriented perpendicular to the ADB vehicle's direction of travel because existing ADB systems would have a difficult time meeting the performance criteria in such scenarios and the magnitude and effect of glare in this situation would be relatively minimal (because the vehicle illuminated by the ADB system would be stopped or preparing for a stop).

Comments

The agency received a number of comments on the practicability of the proposed test scenarios. Many of the commenters, including many vehicle and equipment manufacturers and trade associations, agreed with the need for track testing, but most stated that the proposed testing was unnecessarily broad and impracticable. Intertek supported a more rigorous dynamic roadway test than specified in SAE J3069, but stated that the full set of proposed scenarios may not be necessary and estimated testing costs to be two-to-four times higher than testing to SAE J3069. Consumer Reports and IIHS also supported a vehicle-level track test but stated that the proposed track test was too broad. Many industry members (Honda, Global, GM, SAE, Competitive Enterprise Institute (CEI), Toyota, Alliance, Mobileye, OSRAM Sylvania Inc. (OSRAM), the Motor & Equipment Manufacturers Association (MEMA), Infineon Technologies Americas Corp. (Infineon), Valeo Lighting Systems (Valeo), and NAFA Fleet Management Association (NAFA)) supported the use of SAE J3069, which includes a more limited track test, and/or specifically supported a more limited track test than proposed. Commenters made a variety of arguments for why they believed the proposed track test was not practicable.

A number of commenters [75] stated that the proposed track test was not practicable because of the number and complexity of the proposed scenarios. For example, SAE stated that testing over 34 different maneuvers on various road geometries with multiple variations is excessive and not practicable. IIHS similarly commented that the number of scenarios could be reduced to a more manageable set without sacrificing the tests' ability to identify systems unable to adequately mitigate glare. IIHS estimated that testing every scenario with all four types of stimulus vehicle would require 272 tests, and that testing at different speeds would require even more tests. Toyota estimated that the proposal resulted in 10,000 possible test scenarios.

Several commenters claimed that the proposal would necessitate testing capabilities beyond those available at existing test facilities. The Alliance for Automotive Innovation (Auto Innovators) conducted a series of tests based on the proposed scenarios and commented that it found that the proposed scenarios were unnecessary and beyond the capabilities of many proving grounds. Volkswagen, the Alliance, Valeo, and Auto Innovators commented that the proposed test scenarios necessitated test tracks with characteristics (*e.g.,* specified radii of curvature, road surface conditions, test track length necessary for attaining specified speeds) that were not within the capabilities of existing proving grounds. SAE, Auto Innovators, OICA and the Society of Motor Manufacturers and Traders (SMMT) contended that the proposed track test would necessitate data measurement capabilities beyond those which are currently available at test facilities, with Auto Innovators arguing that the proposal would require up to 476 data elements. Auto Innovators also commented that the amount of time needed for data collection and processing was longer than expected, and it recommended that NHTSA develop software or other compliance tools to expedite data processing. To address these issues, Auto Innovators recommended (among other things) adopting fixed lighting stimuli, limiting the number of eligible stimulus vehicles, and limiting the number and complexity of test scenarios.

A few commenters suggested eliminating redundant scenarios and/or testing only the most stringent scenarios. Auto Innovators suggested that by adopting the most stringent test scenarios at the extremes of the testing range, the intermediate tests could be eliminated. For example, Auto Innovators suggested only specifying straight and small-radius curve scenarios because the small-radius curve was the most stringent test with 46 failures out of 127 valid test runs (36.2% failure rate), while the failure rates for the straight, mid, and large radius test scenarios were 26.6%, 26.7%, and 22.4%, respectively. IIHS stated that while the volume of proposed test scenarios might be justified if each scenario presented substantially different conditions for the ADB system, that is not the case with the proposal; an algorithm based on a camera sensor has limited ability to compute distance and vehicle type solely using another vehicle's headlamps or taillamps. For example, from the camera's perspective, a larger vehicle farther away will look the same as a smaller vehicle at a closer distance. As a result, ADB algorithms will be designed to the boundary cases of the range of scenarios NHTSA finalizes, which should allow the intermediate scenarios to be eliminated.

The Truck and Engine Manufacturers Association (EMA) commented that the NPRM did not consider the significant barriers and expense of the proposal on the heavy-duty market. EMA stated that the heavy-duty market presents unique challenges for ADB development because of the wide variation of potential vehicle configurations due to extensive customization and low volume.[76] EMA commented that these varied configurations determine the height and angle of the vehicle, and in the case of incomplete vehicles the angle of the chassis may change upon completion of the vehicle by a body-builder. EMA also commented that performing track-level testing on hundreds of vehicle configurations would be cost-prohibitive, and track-testing facilities are not readily accessible to manufacturers. EMA also commented that the NPRM did not include any data specific to heavy-duty vehicles and stated that such testing would be necessary before finalizing the rule. EMA stated it was unable to fully evaluate the proposal due to the immaturity of ADB technology for the heavy-duty market.

[75] These were MEMA, IIHS, Toyota, Alliance, SAE, Auto Innovators, Honda, Global, Valeo, Volkswagen, the International Organization of Motor Vehicle Manufacturers (OICA), GM, Ford, and the Transportation Safety Equipment Institute (TSEI).

[76] EMA also commented about the impact of the driver's eye point and sensor positions in heavy-duty vehicles, but NHTSA was unsure of the meaning of this comment.

Global commented that NHTSA should justify the fact that the proposal was more stringent than the current semiautomatic beam switching device requirements (which are limited to a test of the ''camera'' device and do not test the overall system).

Agency Response

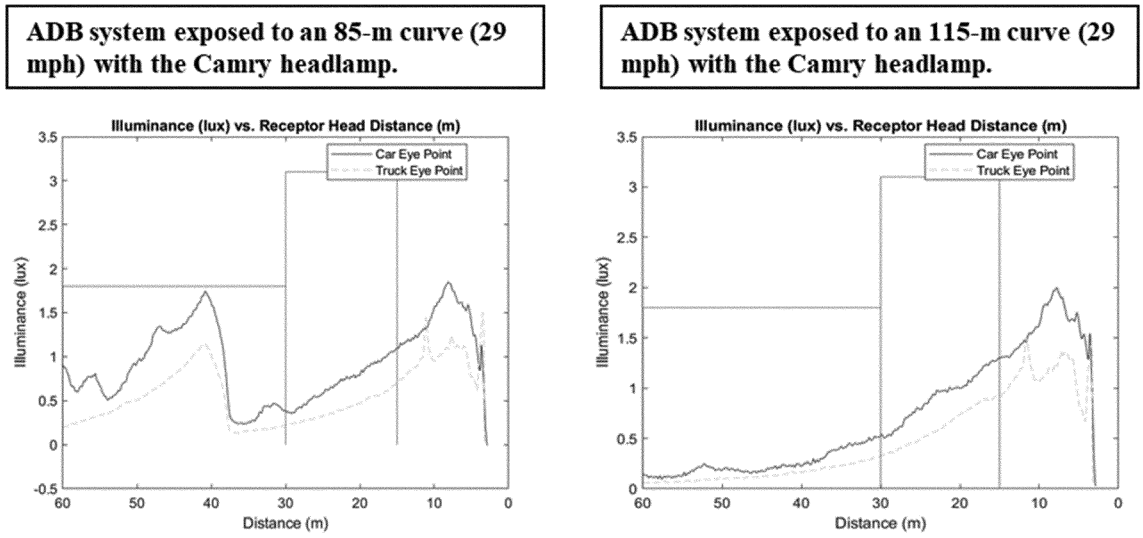
NHTSA agrees that the proposal included redundant scenarios and that the final rule can more closely follow SAE J3069 without sacrificing the robustness of the test. The final rule specifies stationary test fixtures outfitted with vehicle lamps instead of dynamic stimulus vehicles. The test fixture specifications are similar to those specified in SAE J3069, but differ by specifying original equipment vehicle lamps. Accordingly, the final rule eliminates all scenarios involving a moving stimulus vehicle.

NHTSA also modified the specified road geometries. The final rule retains scenarios with actual curves. However, considering lower beam and ADB system capabilities, NHTSA has narrowed down the curve scenarios by eliminating the short right-curve scenario and truncating the measurement distances for all but the large left curve scenario. NHTSA similarly modified the measurement distance for the preceding scenarios. We believe that the final test scenarios are sufficient to determine whether an ADB system prevents glare to other motorists. The reasons for these modifications are discussed in more detail in Section VIII.C.8, Test Scenarios and Section VIII.O, Regulatory Alternatives.

The agency narrowed down the test scenarios by identifying aspects of performance that an acceptable ADB system should meet and choosing scenarios that would be the most challenging with respect to those aspects of performance. For example, the final rule includes a same-direction left curve scenario in order to test the ability of an ADB system to recognize dim red lamps at wide angles.

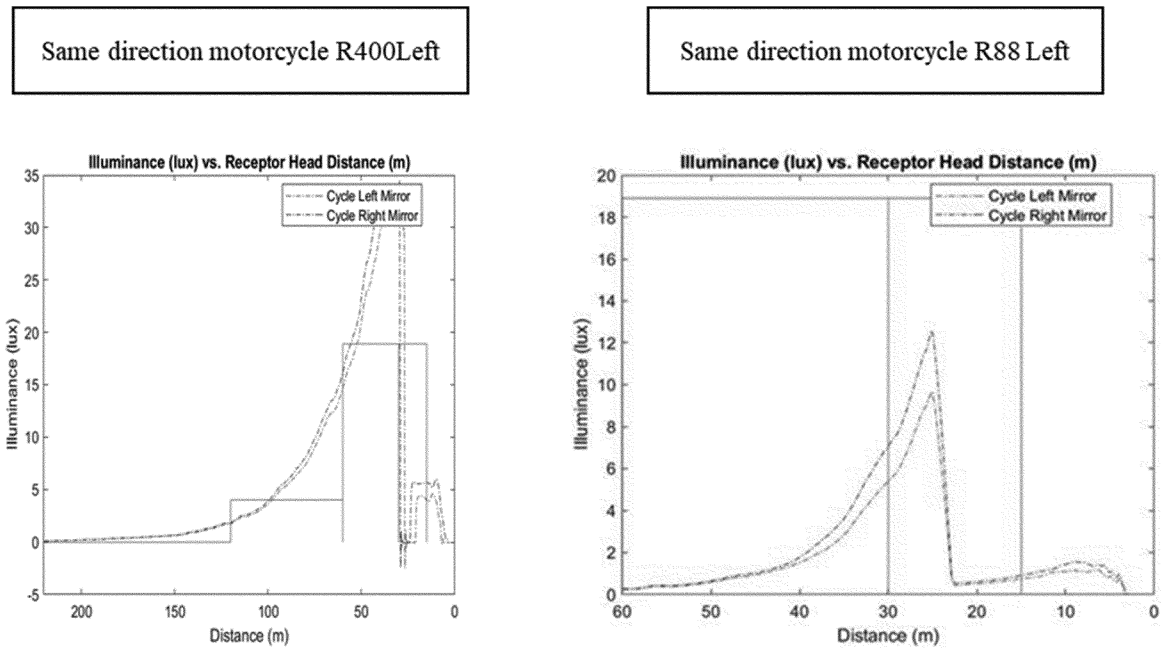
However, the agency's testing showed that it was not possible to identify a radius of curvature (*e.g.,* shortest) that would necessarily present a ''worst-case'' for all aspects of an ADB system. For example, with the oncoming car/truck test fixture outfitted with the Camry headlamps on a left curve, the shorter-radius curve was, in fact, more challenging for the ADB system used for testing as evidenced by the fact that it nearly exceeded the glare limit. See Figure 2.[77] However, when tested with the preceding motorcycle fixture in a left curve test scenario, the ADB system tested failed the test on a larger-radius curve but passed the test on a smaller-radius curve. See Figure 3. On the larger-radius curve, the system failed to recognize the motorcycle taillamp for the entirety of the test (the detectors are saturated at the end of the test, so it is not possible to interpret the results from 30 m–15 m). This suggests that a variety of test scenarios, including a range of different curves, are needed to test the variety of factors that contribute to a properly-performing ADB system. While in many instances, shorter-radius curves will be a worst-case scenario, the agency does not believe such curves will necessarily represent the worst-case for all ADB systems; complexities in the recognition system can create a far more complex set of test results. The final rule therefore retains curves with a range of radii of curvature.

Figure 2. ADB system with oncoming car/truck fixture on left curve, R85 m vs. R115 m



[77] The agency saw a similar result in its 2015 data. *See* Adaptive Driving Beam Headlighting System Glare Assessment, DOT HS 812 174, August 2015, NHTSA U.S. Department of Transportation, p.168 (Fig. 74). The vehicles tested as part of that research demonstrated a similar performance with respect to curve radius and closing speed. The glare was higher for the moving stimulus vehicle as compared to a stationary one.

Figure 3. ADB system with preceding motorcycle fixture on left curve (R400 and R88)



NHTSA implemented the finalized test scenarios using readily-available photometric measurement and processing equipment. Accordingly, the agency has concluded that it is within the capabilities of current testing facilities to test to the final requirements.

The agency is not persuaded by EMA's comments regarding heavy-duty vehicles. Because ADB systems are not required, heavy-duty vehicle manufacturers may take time to fully develop ADB technologies for use on these vehicles. Moreover, while the development of ADB systems for heavy-duty vehicles is less mature than for passenger cars, the agency does not believe these challenges to be insurmountable, or that meeting the requirements of this final rule is impracticable. There are a few reasons for this. First, the ability of the ADB system to dynamically track other vehicles is independent of the specific characteristics of the ADB-equipped vehicle, so the fact that the ADB system would be on a heavy-vehicle would not be consequential. Second, the test procedures specify that NHTSA will aim the headlamps on the test vehicle according to the manufacturer's instructions, which provides manufacturers with a means to mitigate the effects of chassis-specific features that might affect system performance by establishing chassis-specific aim specifications. Third, the final rule's extensive modifications to the proposed track test, resulting in a streamlined set of test scenarios, should also help address concerns about heavy-vehicle testing.[78]

Finally, while the requirements and test procedures in the final rule are an increase in stringency from the longstanding requirements for semiautomatic beam switching devices, this final rule is appropriate because ADB systems are capable of providing an enhanced beam that is brighter than the lower beam, which presents an increased risk for glare if the system is not designed appropriately.

2. Test Fixtures vs. Stimulus Vehicles

NHTSA identified two main alternatives to the proposed broad range of eligible stimulus vehicles that would be used to elicit an ADB system response. First, the agency considered specifying a small set of specifically-identified stimulus vehicles, but tentatively decided that a broad range of potential stimulus vehicles was necessary to ensure that an ADB system can recognize multiple headlamp/taillamp configurations on vehicles of different sizes and shapes.

Second, NHTSA considered specifying test fixtures, including those specified in SAE J3069.[79] The NPRM noted SAE's rationale that fixtures represent a worst-case scenario because some cameras use movement to identify objects as vehicles. It also noted SAE's explanation that the fixture lamps would represent a ''reasonable worst case for intensity and location and should promote test repeatability.'' [80] NHTSA also noted that test fixtures could be easier to use than actual vehicles.

However, the proposal identified several potential concerns with test fixtures. The major concern was the lack of realism, so that fixtures might not indicate whether the ADB system would recognize actual vehicles and instead could permit ADB systems to be tuned to detect fixtures. Another concern related to possible difficulties in tuning out non-vehicle objects. Also of concern was the possibility that the fixture characteristics might not represent a worst case.

The NPRM therefore proposed a large set of eligible stimulus vehicles. The agency tentatively concluded that it would be practicable for manufacturers to design ADB systems to recognize and

[78] We also note that NHTSA was unable to perform testing on heavy-duty vehicles because it was not aware of any such vehicles that are ADB-equipped. In any case, for the reasons given above, we do not believe that it is necessary to test heavy-duty vehicles prior to adopting this rule.

[79] *See* NPRM at p. 51782–51783.

[80] SAE J3069, p. 3.

shade any vehicle satisfying the proposed selection criteria. NHTSA noted that the lighting configurations an ADB system would have to recognize would not be unreasonably large, as front and rear lighting designs are limited by the requirements of FMVSS No. 108 and the realities of vehicle design. NHTSA also reasoned that there is a limited, and not exceptionally large, number of makes and models of new vehicles offered for sale in the United States every year (approximately 420), and that the set of eligible stimulus vehicles would be further limited by the proposed vehicle height constraint.

Comments

Vehicle and equipment manufacturers opposed the use of stimulus vehicles and commented that NHTSA should instead follow SAE J3069 and use test fixtures. These commenters identified a variety of specific concerns with stimulus vehicles.

Several commenters (Mobileye, EMA, Volkswagen, SMMT, Ford, Toyota, SAE, the Alliance, Global, and Honda) contended that the proposed stimulus vehicle specifications would result in an impracticably large set of potential vehicles. For example, SAE and the Alliance commented that the NPRM specified an unmanageable and exceptionally large number of potential stimulus vehicles, exacerbated by the fact that many vehicles have multiple headlamp and/or taillamp trim levels, and that the proposal does not account for motorcycles or heavy-duty vehicles. They estimated that this could result in a set of up to 1,000 eligible stimulus vehicles. The Alliance also contended that it would be impossible for a manufacturer to choose a worst-case scenario and guarantee that testing with the other thousands of vehicle choices would exhibit reproducible results for the multitude of requirements. MEMA, Volkswagen, and the Alliance commented that the proposal would cause manufacturers to incur costs from repeated testing as the stimulus vehicles need to be refreshed every year. Volkswagen also commented that obtaining stimulus vehicles would be especially burdensome for foreign original equipment manufacturers (OEMs) and test facilities.

Mobileye, SAE, Honda, and Ford commented that an FMVSS requiring a manufacturer certification to account for the various configurations and performance of thousands of vehicles in the market would be unreasonable and unprecedented, as opposed to other FMVSS which simulate real-world conditions with standardized test apparatus. As an example, SAE, Ford, and Honda pointed to FMVSS No. 208, which uses a fixed barrier to simulate a stimulus vehicle crashing head on into the test vehicle within one specified range of speeds and does not require selecting actual vehicles from a large population available in the market to conduct this testing. Honda also pointed to FMVSS No. 214 (side impact) and FMVSS No. 301 (rear impact), and various New Car Assessment Program (NCAP) test procedures that standardize the device used to assess the crashworthiness of the test vehicle. SAE and Honda contended that this approach allows the test to be practicable and objective, and SAE suggested such an approach would be sufficiently realistic because, as the NPRM noted, the lighting configurations an ADB system would have to recognize are limited by the requirements of FMVSS No. 108 and realities of vehicle design.

Commenters also raised concerns related to vehicle production cycles. SAE and Ford commented that the cycle plans of any given vehicle design can last many years, with those designs solidified many months prior to production, making it impossible for manufacturers to account for other manufacturers' vehicles in any manageable timeframe. A manufacturer would not be aware of which vehicles may pose compliance challenges for its ADB system prior to these vehicles being sold to the public, especially considering the extremely conservative and challenging requirements associated with the NPRM. Honda made similar comments.

Mobileye commented that the proposal would lead OEMs to over-tune the ADB system in order to ensure compliance, resulting in non-optimal and overly sensitive system behavior and diminished safety benefits.

Several commenters (Global, Mobileye, Valeo, the Alliance, MEMA, and Volkswagen) raised concerns regarding the repeatability and/or reproducibility of compliance test results. SAE, the Alliance, SMMT, and Honda commented that the proposal was not objective.

A few commenters did support using stimulus vehicles. Consumer Reports supported a broad range of stimulus vehicles as reasonable to adequately ensure ADB systems detect, identify, and shade vehicles of different size, shape, and lighting configurations; however, it also urged that testing be practical and efficient. Intertek commented that a simple static test fixture may not be sufficient, and that using any make or model within defined physical constraints is preferable to adding an appendix with a list of eligible test vehicles. AAA commented that no certified motor vehicle should be excluded from use as a stimulus vehicle, and that the proposed limitation to the past five model years together with the vehicle height constraints were practical and acceptable.

Several commenters, while not supporting the use of actual vehicles, commented that if NHTSA were to use actual vehicles, it should further limit the set of eligible stimulus vehicles. SL Corporation (SL) commented that detailed criteria for stimulus vehicles (such as light source, luminous intensity of the stimulus vehicle's headlamp and rear lamp), specified by vehicle type, is needed. Global commented about a need for consistency in any testing, further arguing that the rule could bookend the vehicle population's performance (*i.e.,* lowest/highest, narrowest/widest) to constrain the massive number of stimulus vehicles. Toyota suggested that NHTSA limit the number of stimulus vehicles to a practical and manageable list by only using the top three U.S. selling vehicle models for each of the vehicle types identified in Table XXI of the NPRM in the fifth model year prior to the model year of the certified vehicle. Honda stated that if NHTSA does not adopt test fixtures, it should test with a single stimulus vehicle chosen by the manufacturer. Valeo suggested specifying a standard stimulus vehicle. Mobileye suggested modifying SAE J3069 by defining the use of a standardized dummy stimulus vehicle with lamps representative of those approved by FMVSS No. 108 instead of the static fixtures specified in SAE J3069. Mobileye also recommended complementing the (modified) SAE test with a requirement for an additional test drive by a test engineer to ensure stable detection and reaction to vehicles of different makes and models in additional real-world scenarios not specified in the track test.

Agency Response

After evaluating the comments and considering the requirements of the Safety Act and the National Technology Transfer and Advancement Act (NTTAA),[81] NHTSA has decided to specify test fixtures instead of stimulus vehicles. The NTTAA directs agencies to use voluntary consensus standards unless, among other things, doing so would be inconsistent with applicable

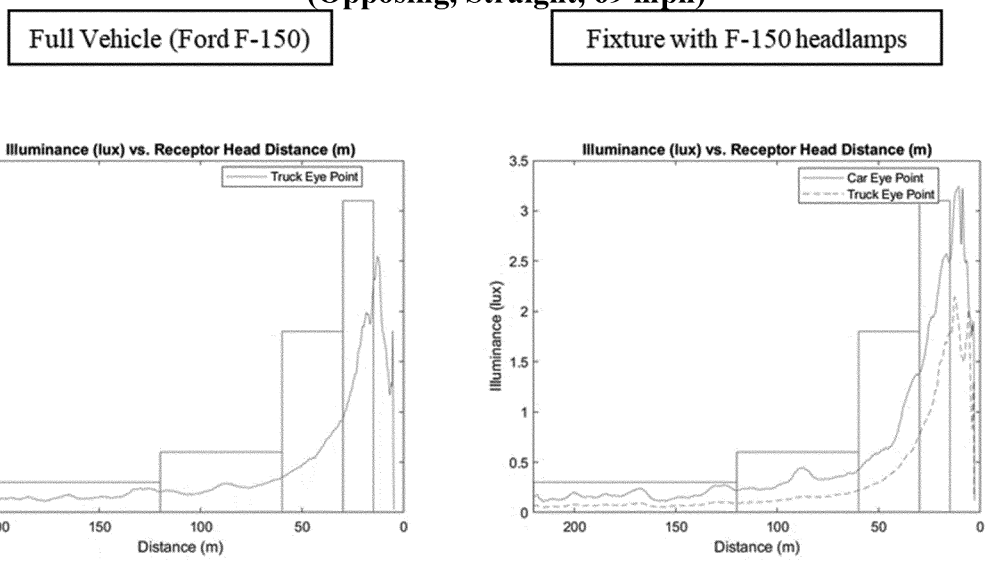
[81] National Technology Transfer and Advancement Act of 1995, Public Law 104–113, 110 Stat. 775 (1996). *See* Section X, Rulemaking Analyses and Notices.

law. We believe the test fixtures specified in the final rule are consonant with both the Safety Act and the NTTAA.[82] In particular, we believe the test fixtures both meet the need for safety and better align with SAE J3069 and other countries' standards.

Most importantly, we concluded that the test fixtures specified in the final rule meet the need for safety. There are two main reasons for this. First, in this case the need for safety requires us to balance visibility and glare prevention. As some commenters pointed out, a too-demanding track test to evaluate glare, including a large set of eligible stimulus vehicles, could lead manufacturers to tune the system to provide sub-optimal forward illumination. Second, we concluded that using real vehicles would generally not challenge ADB systems any more robustly than properly-specified fixtures. In the NPRM we expressed the concern that insufficiently realistic test fixtures could lead to ADB systems with performance tuned to the fixtures, not to real vehicles, resulting in a test that does not sufficiently replicate real-world performance. To address this concern, NHTSA developed test fixtures fitted with original manufacturer replacement equipment vehicle headlamps and taillamps, instead of the lamps specified in SAE J3069 that are intended to simulate vehicle lighting. (See Section VIII.C.6 for a discussion of the final fixture specifications.) NHTSA then tested whether an ADB system performed differently with these fixtures than with an actual vehicle. As explained below, this testing showed that the ADB system detected and responded to the finalized test fixtures in generally the same way it did to an actual vehicle.

NHTSA's recent research compared ADB performance when tested with the finalized stimulus fixtures versus a stationary stimulus (*i.e.,* actual) vehicle. For the most part, differences in performance were not observed. For example, in straight oncoming and preceding test scenarios, the ADB system recognized both the stimulus vehicle and test fixture before either stimulus entered the measurement range. See Figures 4 and 5.

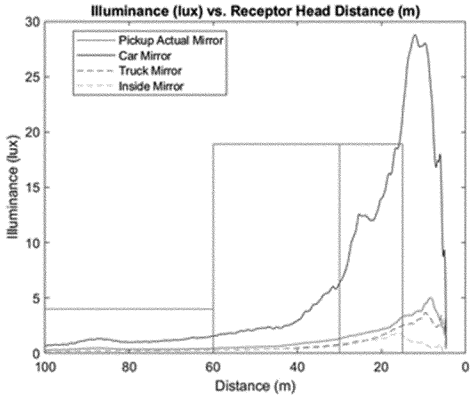
Figure 4. ADB performance with stimulus vehicle vs. stimulus fixture (Opposing, Straight, 69 mph)



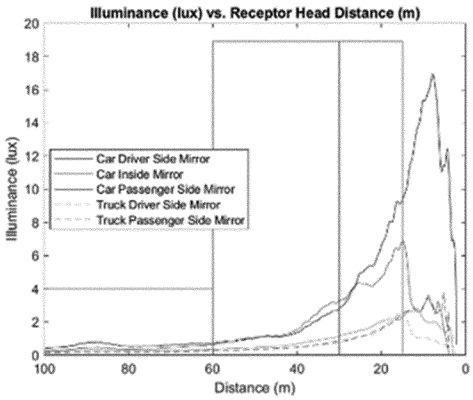
[82] We also note that the final rule does not adopt Mobileye's suggestion to supplement the track test with an evaluative drive by a test engineer, because such a requirement would not satisfy the Safety Act requirement of objectivity.

Figure 5. ADB performance with stimulus vehicle vs. stimulus fixture (Preceding, straight, 69 mph)

Full Vehicle (Ford F-150)

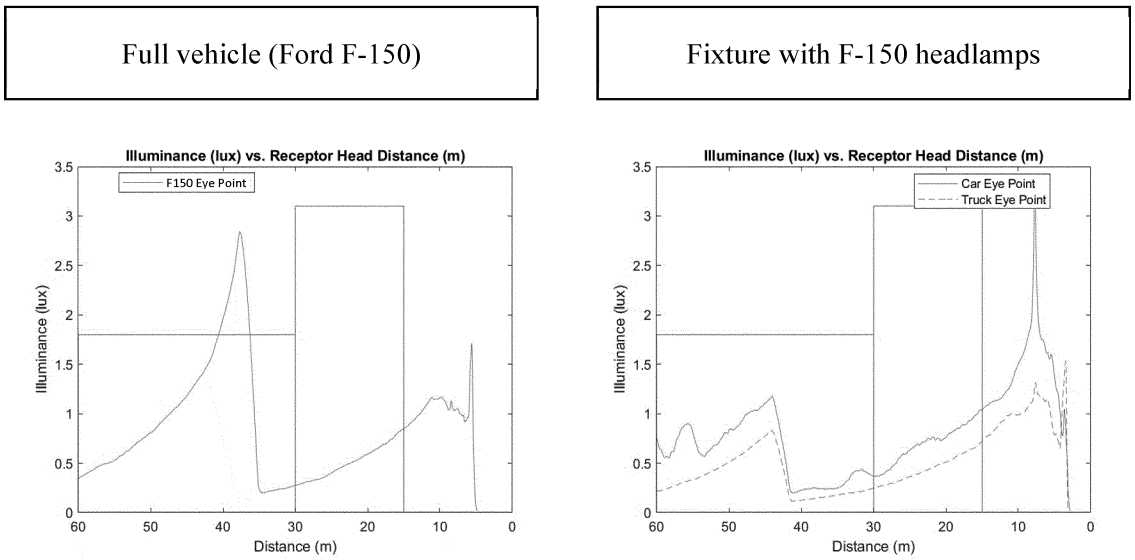


Fixture with F-150 taillamps



One exception to this was observed for the smallest-radius left curve (oncoming) at the highest speed. In this case, the ADB system performed better (recognized and adjusted sooner) when exposed to the test fixture. For the fixture, the test vehicle adjusted its light output at around 44 m and did not exceed the glare limits. For the real vehicle, it reacted at 39 m, resulting in a glare exceedance. This suggests that this ADB system likely relies on light source detection rather than using supplemental systems such as radar or LIDAR to detect a vehicle structure. Although we did not systematically test this hypothesis, we suspect that the performance differences observed in this case are caused by small differences in headlamp mounting heights between the fixture and the real vehicle. See Figure 6. The agency did not observe any situations in which the full vehicle was recognized, but the test fixture was not.

Figure 6. ADB performance with actual vehicle vs fixture (Oncoming, Left curve (R=85 m), 29 mph)



The test fixtures specified in the final rule more closely align with SAE J3069 and better harmonize with other countries' standards than the proposed broad range of eligible stimulus vehicles. This should help facilitate deployment of ADB systems in the United States because manufacturers are already familiar with SAE J3069 and because it harmonizes with the Canadian regulations, which permit ADB systems designed to meet either ECE R123 or SAE J3069. This approach also results in a more manageable set of test scenarios and stimulus vehicles to which manufacturers must certify,[83] which will also result in a less complex and costly test. Test fixtures will reduce the test burden by establishing a consistent stimulus for testing, reducing the cost of acquiring and maintaining the test stimulus, reducing the test time, and more closely harmonizing with SAE J3069. NHTSA's testing showed that fixtures simplified the coordination of each test run. A single test driver was required to drive the test vehicle as opposed to two drivers required for tests involving dynamic stimulus vehicles. Additionally, no start and stop coordination was needed between the two drivers. The use of fixtures also facilitates set-up for different scenarios.[84]

3. Justification for Testing on Curves and General Approach for Scenario Selection

In addition to testing ADB performance in a straight-path scenario, the NPRM proposed testing ADB systems on curved-path scenarios (both left and right curves) with a variety of radii of curvature. The agency proposed testing on a ''small'' curve with radii of curvature from 98 m–116 m (320–380 ft); a ''medium'' curve with radii of curvature of 223 m–241 m (730–790 ft); and a large curve, 335 m–396 m (1100–1300 ft). The NPRM explained that the small curve was chosen because it corresponded (approximately) to the shortest radii of curvature appropriate for a vehicle traveling 25–35 mph, approximately the minimum speed for which we proposed to allow ADB activation. The medium curve corresponded to the shortest radii of curvature appropriate for the higher ADB minimum activation speeds of some of the ADB-equipped vehicles NHTSA tested. Finally, the large curve was intended to correspond to a curve appropriate for vehicles traveling at higher speeds, to test ADB performance on curves at higher speeds. Values for speed and radius of curvature were selected to be consistent with the simplified curve formula.[85]

The NPRM recognized that curves might present engineering challenges for ADB systems. For example, on a curve an oncoming vehicle enters the ADB system's field of view (FOV) from the edge; in a tight curve, an oncoming vehicle will enter the field of view at a closer distance than in a larger-radius curve. Performing adequately on large-radius curves at relatively high speeds consequently presents a slightly different engineering challenge than performance on tight curves at lower speeds.

Comments

Consumer Reports supported testing using curved path scenarios of various curvatures. Intertek supported a more rigorous dynamic roadway test than specified in SAE J3069 (which specifies straight test drive paths) because the SAE J3069 approach may not be sufficient to validate the performance of the ADB sensor over the range of situations that it will normally encounter.

[83] Specific to this rulemaking, NHTSA has concluded that using test fixtures better balances the safety needs of visibility and glare prevention, and is more practicable and appropriate, than using a broad range of potential stimulus vehicles. We are not implying that a large set of potential stimulus vehicles is necessarily impracticable for an FMVSS. We also note that we do not agree with the commenters who claimed that the proposal raised issues with respect to objectivity, repeatability, or reproducibility.

[84] NHTSA developed a single test fixture that was capable of mounting both the motorcycle and the car/truck vehicle lamps; the various lamps could be switched between test runs of different scenarios.

[85] This is a standard formula used in road design that specifies the relationship between vehicle speed and the radius of curvature. *See infra* n.142 and accompanying text.

On the other hand, several commenters opposed or raised issues with testing on actual curves. SAE commented that NHTSA should follow SAE J3069 and simulate curves using a straight path and varying the placement of the test fixtures. SAE contended that curves are not necessary because continuous tracking of the angular location of the test fixture in straight scenarios is required, and that removing curves would greatly reduce the testing burden. SAE noted that it considered including curves in SAE J3069 but concluded that attempting to capture hundreds of potential road geometries would make the test excessively burdensome because ADB systems would function similarly over many of these geometries and including them all would provide no added value. SAE further determined that testing on a straight path with one lane to the right and more than one lane to the left of the ADB-equipped vehicle would capture the conditions necessary to determine whether an ADB system functions appropriately and ensures an adequate response to a wide variety of road geometries, while allowing the test method to be simple enough to be objective and repeatable. For example, SAE J3069 requires that in a straight-line encounter, an ADB system must continuously track the angular location of an opposing vehicle fixture as that angular position becomes increasingly further from the center of the camera's field of view with decreasing distance to the opposing vehicle. SAE commented that such an approach allows evaluation of vehicles encountered on curves to be captured without using actual curves.

SAE, ALNA, Toyota, and the Alliance stated that the proposal would require ADB systems to produce less glare than current FMVSS No. 108-compliant lower beams, and that this issue was particularly acute on curves. They argued that the proposed approach would reduce lower beam visibility and negatively impact safety. SAE provided analyses and graphs based on IIHS data on lower beam performance on different road geometries, from straight roads to left and right curves of various radii. Stanley and Intertek also asserted that the final rule should account for the fact that current lower beams would not comply with the glare limits on right curves.[86]

Agency Response

The final rule does not adopt some commenters' recommendation to forgo actual curved-path scenarios, but it does reduce the measurement distances in many of the test scenarios for which curves are specified.

The agency is not persuaded that the SAE J3069 approach of simulating curves by varying fixture placement relative to a test vehicle's straight path adequately replicates curves. Two features of the SAE test are intended to replicate what the system would encounter in an actual curve. First, the fixtures are placed to the side of the test vehicle's path. Second, the sudden appearance scenario is intended to roughly replicate a curve in that the fixture's stimulus lamps become visible at a close distance, which would happen on a relatively tight curve. (The sudden appearance scenario is also intended to exercise the ability of the ADB system to react to real world situations such as another road user turning on their lights, turning onto the road, or cresting a hill at distances as close as 100 m.) This approach, however, does not accurately replicate real curves in at least two respects.

One is the trajectory of the fixture as it is tracked by the ADB system (see Figure 7). An approaching vehicle on an actual curve enters the ADB system's field of view from the edge, at a relatively far distance; moves towards the center of the field of view as the distance to the fixture closes; and then moves out towards the edge of the field of view at a close distance. The trajectory is different, however, when attempting to replicate a curve using a straight path and fixtures placed out to the side. There, the fixture is first detected by the ADB system near the center of the camera's field of view at a far distance, and then moves out towards the edge of the field of view at closer distances.

For example, on an actual left curve with a radius of 230 m, the fixture enters the FOV at the edge (25L) at a relatively far distance (191 m) and moves towards the center of the FOV until around 35 m at which point it moves out towards the edge of the FOV again (see Figure 7). In comparison, in the SAE test run, at 155 meters (the start of the SAE test), Fixture 1 is near the center of the FOV at approximately 2.5 degrees left, and as the test vehicle approaches the fixture the fixture moves out to the edge of the field of view.

As another example, this time on a right curve with a radius of 230 m, the fixture enters the FOV at the right edge of the field of view (25R) at about 205 m and moves towards and then across the center of the FOV. In comparison, in the SAE test, at 155 meters (the start of the SAE test), Fixture 3 is near the center of the FOV (at about 3 degrees right), and as the test vehicle approaches the fixture the fixture trajectory moves out to the right edge of the field of view. The SAE test evaluates rather large angles to the right of the beam pattern, almost entirely to the right of where the NHTSA test method examines the beam pattern performance. The agency believes this to be unusual in reality, particularly for oncoming encounters.

Because the SAE test does not accurately replicate the fixture trajectory, it does not test how the system will need to actually function. For example, one way to ''optimize'' optical recognition is to focus on where an object is most likely to appear. The speed and accuracy of image recognition software can be increased without increasing computing power if systems are trained to look in smaller portions of an image for key elements, as opposed to looking at the entire image continuously. Including test scenarios with actual curves will discourage manufacturers from taking ''shortcuts'' and designing ADB systems that do not react until the stimulus vehicle enters narrow angles within the camera's FOV.

[86] The commenters' data and arguments on these points are discussed in more detail in the sections below discussing each of the test scenarios in the final rule.

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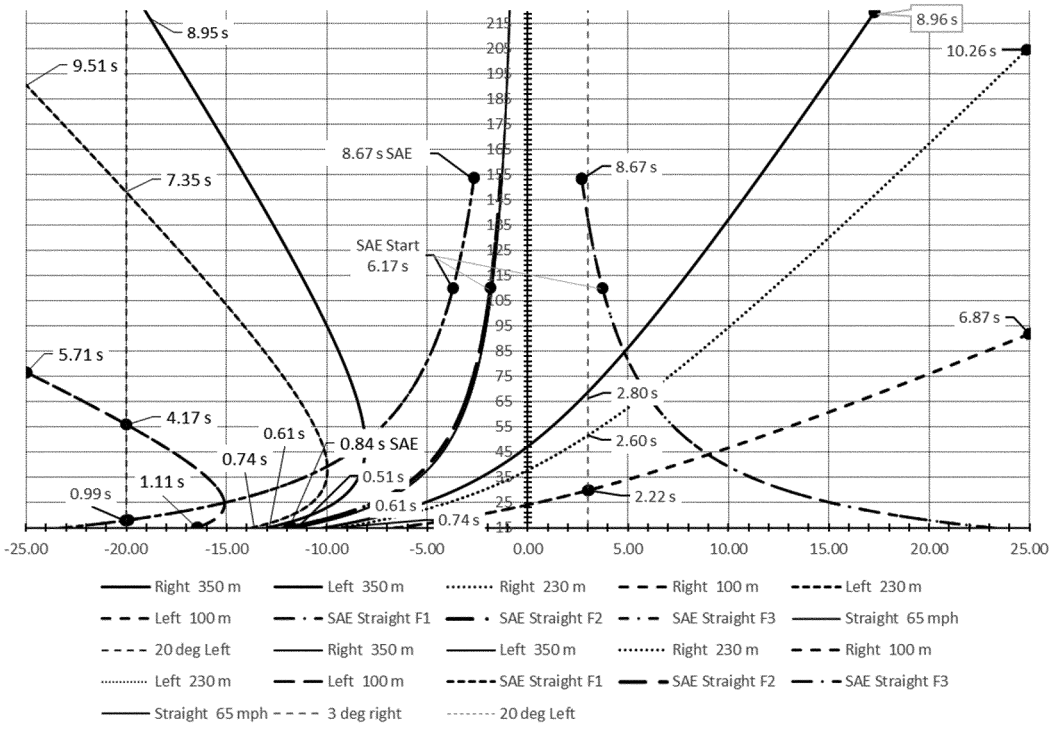
Figure 7. Comparison of fixture trajectories in SAE J3069 and final rule



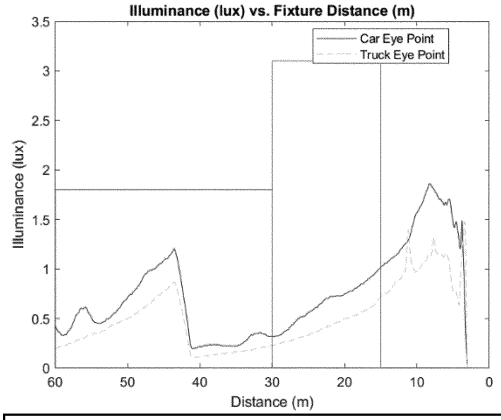
The y-axis is distance in m and the x-axis is in degrees

Second, the SAE approach does not accurately replicate real curves with respect to the speed at which the fixture traces its trajectory. On an actual curve, the fixture travels horizontally across the FOV relatively quickly at longer distances than on a simulated curve. For instance, a left curve requires the headlamp to start shading on the left side of the pattern, quickly move to the right; briefly hold the shade near the middle; and very quickly move the shade back to the far left. A simulated curve, on the other hand, simply necessitates that the system starts shading the middle of the pattern; hold nearly that same angle; and then quickly move the shade either left or right at closer distances. Including actual curved-path scenarios will discourage manufacturers from very accurately following the straight path pattern but less accurately following the paths required for real-world curves; it should therefore result in better real-world performance than would the SAE J3069 fixture placements.

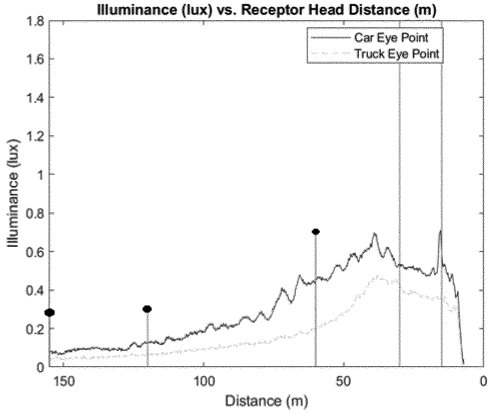
NHTSA's recent testing confirmed that the SAE scenarios do not accurately model how an ADB system will perform on an actual curve. For example, the agency tested ADB system performance on an 85 m left curve as well as the most closely analogous SAE scenario, with the fixture place in Fixture Position 1. (Fixture Position 1 is the closest analogue to this scenario because it is the leftmost fixture position in the SAE test.) See Figure 8. On the actual curve, the system did not recognize and adjust to the fixture until 45 m. On the most closely analogous SAE scenario (Fixture Position 1), the system was able to continuously track the fixture from 150 m away. Even when the agency repeated the same SAE scenario at a much higher speed of 61 mph, the SAE test did not challenge the system's image recognition in an observable way. This shows that an ADB system's initial image recognition capability is not challenged by the SAE test as it is in a more realistic curve test, meaning that NHTSA is less confident that the SAE test would result in an equivalent level of safety as the actual-curve test that NHTSA is finalizing. The practical implications of this is that glare will not be sufficiently controlled by the SAE test compared to the actual-curve test adopted in this final rule.

Figure 8. Comparison of ADB performance on real and simulated curves

Radius 85 m Left – F150 Stimulus lamps (Lexus ADB at 26 mph)



SAE Fixture position 1 (Lexus ADB at 28 mph)

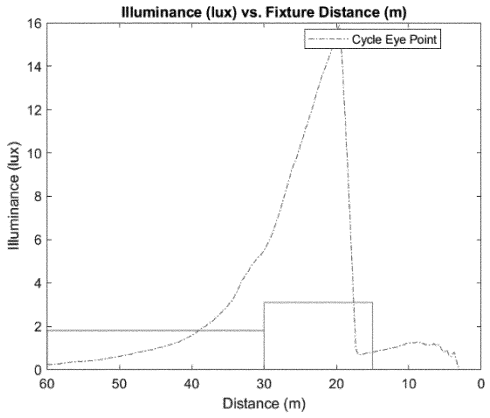


Note: Horizontal axes truncated at 60 m because this is the distance at which evaluation begins.

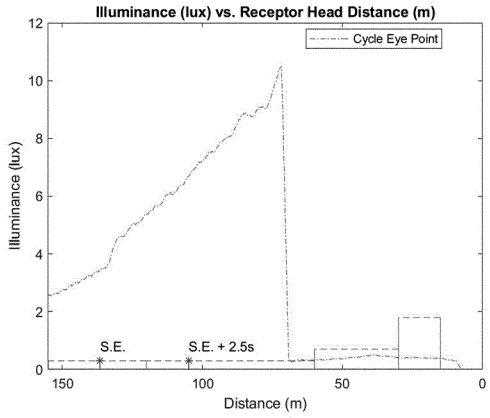
As another example, SAE J3069 does include a sudden appearance test (using the oncoming and preceding motorcycle fixtures) in which the fixture lamps are activated when the test vehicle is between 155 m and 100 m from the fixture. The agency found, however, that this also does not realistically simulate a curve. See Figure 9. On an 85 m left curve at 26 mph, the ADB system recognized the final rule oncoming motorcycle fixture at 20 m. On the SAE sudden appearance scenario, in contrast, the ADB system performed better, activating a shaded area at 70 m. Additional comparative data from the final rule scenarios and the SAE test scenarios are presented and discussed in Section VIII.C.8, Test Scenarios.

Figure 9. Real curve vs. SAE sudden appearance scenario

ADB Radius 85 m Left motorcycle fixture (Lexus ADB at 26 mph)



SAE Motorcycle Fixture, Position 1, Sudden appearance (Lexus ADB at 28 mph)



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NHTSA disagrees with SAE's comment to the extent that it suggests that a final rule incorporating actual curves might not be objective or repeatable. The final rule sets out a rational test procedure that yields a clear answer based upon readings obtained from measuring instruments and is capable of producing identical results when test conditions are exactly duplicated.[87] The final rule specifies the specific scenarios NHTSA may test, including ranges and values for key

[87] *See, e.g., Chrysler Corp.* v. *Dept. of Transp.,* 472 F.2d 659, 676 (6th Cir. 1972).

testing parameters (*e.g.,* differing radii of curvature), and specific numeric limits for the maximum allowable illuminance at certain distances; there is thus no ambiguity with respect to the parameter values NHTSA may select in compliance testing. Moreover, NHTSA has conducted a repeatability analysis and has concluded that the finalized test scenarios and procedures are repeatable (see Section VIII.C.11, Repeatability).

NHTSA did, however, agree that some of the proposed curve scenarios were too stringent. With respect to oncoming glare scenarios, the final rule eliminates the short right curve scenario and reduces the distances at which glare on the medium and large right curves and the short and medium left curves is evaluated. With respect to preceding glare scenarios, the final rule includes a straight-path scenario and a medium left curve scenario. The specifications for the radii of curvature have also been slightly modified. These modifications and other choices are explained in more detail later in the preamble.

In general, NHTSA selected the final scenarios based on three criteria:

The scenario represents commonly-encountered roadway geometries and vehicle interactions. To ensure that ADB systems operate safely, the final scenarios should include at least the most common road geometries and vehicle interactions. Because the adaptive driving beam is intended for distance illumination at speeds at which the lower beam does not provide adequate illumination—typically above 20 mph—these geometries and interactions should be those common at these speeds.[88]

A compliant lower beam could pass the scenario. We also generally chose scenarios such that a compliant lower beam would be able to pass the scenario. There were several reasons for this. First, this (in conjunction with the requirement that areas of reduced intensity meet the corresponding lower beam laboratory photometric requirements) ensures that an area of reduced intensity, up to and including a full lower beam, will meet the same level of safety (with respect to both visibility and glare prevention) as current lower beams certified to FMVSS No. 108. Second, this is consistent with the concept for the proposal: Extending the current laboratory-based lower beam photometric requirements (specifically, the photometric maxima regulating oncoming and preceding glare) for use in a vehicle-level test to evaluate the ability of an ADB system to minimize glare (both oncoming and preceding).[89] Because the track test was intended as an extension of the current laboratory photometric requirements, the track test requirements should (generally) be such that a lower beam (or area of reduced intensity) that complies with the current laboratory photometric requirements will also comply with the track test requirements.

The scenario is generally within the capabilities of robustly-designed internationally-available ADB systems. As noted above, the field of view for current ADB systems is typically 25 degrees to the left and right of the camera, and, as explained below,[90] ADB adaptation time—the time it takes an ADB system to recognize a stimulus (once the stimulus is within the camera's field of view) and dim the beam to a level that falls within the applicable glare limit—is generally about 1 second. Therefore, NHTSA generally chose scenarios such that it would be possible for an ADB system with such field of view and response capabilities to pass the scenario. This is not to say that all current ADB systems would necessarily be able to pass all the final scenarios without any modifications. However, the agency intended to select scenarios that were generally within the reach of current technology (perhaps necessitating some additional improvements, adjustments, or optimizations, depending on the ADB technology), to facilitate timely deployment of ADB systems. NHTSA also recognized that these systems have been in use in foreign markets for several years with few, if any, apparent safety issues.[91] We discuss and apply these criteria in more detail in Section VIII.C.8, Test Scenarios.

4. Maximum Illuminance Criteria (Glare Limits)

The NPRM included a set of photometric maxima to evaluate an ADB system's ability to minimize glare in the track test (glare limits). Because the current photometric test points from which the proposed glare limits were derived are maxima, the agency proposed applying the derived glare limits as maxima, so that any measured exceedance of an applicable glare limit (except for momentary spikes) would be used to determine compliance. The NPRM also extended the standard's ''design to conform'' language to the proposed requirements, including the glare limits.[92] The NPRM also summarized the basis for the glare limits (the full explanation for the derivation is given in the Feasibility Study).

The NPRM explained that the proposed glare limits deviate from SAE J3069 in a few respects. First, two of the glare limits differ slightly. At 60 m, SAE J3069 uses glare limits of 0.7 lux (oncoming) and 8.9 lux (preceding) compared to the proposed 0.6 lux and 4.0 lux. Second, SAE J3069 applies to a narrower range of distances (30 m–155 m) than the proposed glare limits (15 m–220 m). Third, SAE J3069 applies the glare limits only at the endpoints of the measurement ranges (*i.e.,* 155 m, 120 m, 60 m, and 30 m), while the NPRM applied the glare limits throughout the entire measurement range. The proposal explained the reasons for these deviations from SAE J3069.

Comments

A few commenters (AAA, Consumer Reports, and Zoox) supported the glare limits as proposed. Intertek agreed that the baseline glare limit requirements should extend to the full distance ranges rather than only at the four individual distances specified in SAE J3069. Several commenters, however, contended that the glare limits were too stringent and suggested a variety of modifications.

[88] *See* NPRM, pp. 51787–51788.

[89] *See* NPRM, pp. 51770, 51773.

[90] *See* Section VIII.C.5, ADB Adaptation Time.

[91] The fact that the final rule does not include all the proposed scenarios does not mean that NHTSA has concluded that only a relatively small set of narrowly circumscribed scenarios is permissible in an FMVSS. In this case, NHTSA has concluded that adopting a smaller set of test scenarios appropriately addresses both the need for safety (including facilitating the timely deployment of ADB systems) and practicability. This also does not imply that FMVSS requirements must be tailored to the capabilities of currently existing systems. *See, e.g., Chrysler Corp.* v. *Dept. of Transp.,* 472 F.2d 659, 673 (6th Cir. 1972) (''[T]he Agency is empowered to issue safety standards which require improvements in existing technology or which require the development of new technology, and it is not limited to issuing standards based solely on devices already fully developed.'').

[92] As we explained in the NPRM, the proposal extended the standard's longstanding ''design to conform'' language to the proposed requirements because the concept of the rulemaking was to extend the current headlamp requirements to ADB systems. We therefore considered the continued appropriateness of ''design to conform'' to be outside the scope of this rulemaking. However, this extension in no way limits NHTSA's ability to revisit the issue of design to conform in the future. Furthermore, if NHTSA were to reconsider the design to conform language, it might not come to the same conclusion it did when it originally adopted that language. As we explained in the NPRM, NHTSA adopted the ''design to conform'' language when the standard was introduced in 1967 because it accepted industry's contemporaneous representation that vehicle lamps could not be manufactured to meet every single test point without a substantial cost penalty unjustified by safety. We further explained that, because lighting equipment design, technology, and manufacturing have evolved and advanced since the late 1960's, NHTSA might not come to the same conclusion were it to revisit this issue.

SAE, Global, Ford, Toyota, the Alliance, and Auto Innovators commented that the proposed glare limits were conservative and that using absolute measurements of discomfort glare (the aspect of glare that is painful or annoying, as opposed to the aspect of glare that limits the ability to see other objects) is unreasonable and not practicable. They recommended the final rule include reasonable allowances for an ADB system to momentarily exceed the glare limits, especially given the large number of proposed test scenarios. They also stated that the proposed glare limits are well below the illuminance provided by contemporary lower beams, including Insurance Institute for Highway Safety (IIHS) top-rated lower beams for MY 2017 vehicles, especially on curves. As noted earlier, SAE provided analyses and graphs based on IIHS data on lower beam performance on different road geometries, from straight roads to left and right curves of various radii.[93]

For those reasons, SAE, the Alliance, and Toyota argued that NHTSA should evaluate the ratio of the ADB to lower beam illuminance. SAE noted that this procedure is specified in SAE J3069, which requires the measured illuminance to be no more than 25% above the measured lower beam illuminance. SAE further stated that NHTSA's 2015 ADB Test Report used a similar procedure, and that an UMTRI report found that 25% was an acceptable maximum limit above the lower beam.[94] Toyota commented that following SAE J3069 in this respect would facilitate ADB deployment across a wider range of vehicles.[95] Auto Innovators also argued for a similar 25% allowance (discussed below).

A few commenters expressed interest in the final rule accounting for glare dosage. Toyota commented that there is no clear evidence that exceeding the maximum illuminance for longer than 0.1 second leads to a safety hazard any greater than what occurs with existing headlighting systems on U.S. roads today. Mobileye similarly commented that a distinction needs to be introduced between glaring that may cause discomfort to other drivers and glaring which may pose a safety risk. It asserted that, while the NPRM assumes that any glare exceedances for more than 0.1 seconds are not acceptable, drivers commonly use intentional, limited glaring as a signaling mechanism to other drivers. Accordingly, Mobileye suggested allowing glare exceedances longer than 0.1 seconds. AAA commented that the final rule should not permit glare exceedances lasting longer than 1 second because its research showed that glare from an oncoming vehicle lasting approximately 1 second was rated as highly distracting. Intertek believed that proposed 0.1 second allowance would account for the majority of the issues related to glare dosage, exposure, or perceptibility because any longer exceedance is detectable by the human eye. Auto Innovators also asserted that the final rule should account for glare dosage. (This is discussed further below.)

NHTSA received a few comments about the proposed measurement distances. Intertek commented that regulating glare for distances extending out to 220 m is unnecessary because the angular size and position of oncoming headlamps at distances greater than 155 m mitigate any harmful effects of glare. Intertek commented that testing out to 220 m creates additional complexity and testing costs. In contrast, AAA suggested regulating glare beyond 220 m. They noted that European specifications require camera recognition and reaction at distances of 400 meters (1,312 feet), and that intensity limits could be increased from the current maximum of 150,000 cd to the European maximum of 430,000 cd if ADB systems are effective at this distance. SAE commented that the proposed requirements for preceding glare are too stringent, given the detection distance (120 m vs. 100 for the ECE) and the minimum photometric requirements for rear lamps (2 cd vs. 4 cd for the ECE).

Valeo commented that the proposed maximum illuminance requirements would result in wildly varying light output, especially compared to the current ECE requirements, which result in a much more constant and consistent light intensity. Valeo also suggested that the final rule clarify that the requirements apply to the entire ADB system (both left-hand and right-hand headlamps).

Intertek suggested measuring luminance [96] from the ADB system headlamps rather than illuminance at the test fixture would provide several benefits, including: The data collected from the test would have a record which is very closely matched, and can be perceived and analyzed in much the same way as what an actual driver of the stimulus vehicle would have experienced; the recorded data can be viewed as a map of luminous intensity (candela) emitted from the test vehicle, which would be directly comparable to the existing photometry requirements, and can be plotted as a function of time or approach distance; over time, if this data is collected carefully and attention is paid to those scenarios in which the driver of the stimulus vehicle feels glared, a better quantitative baseline for and understanding of glare can be established.

Auto Innovators stated that NHTSA should adopt a modified version of the IIHS right-curve glare exposure criteria for all oncoming scenarios.[97] See Table 5. Auto Innovators contended that this would be appropriate because the IIHS glare limits are intended to provide consumers with a relative assessment of headlamp performance and it is possible for a vehicle to drastically exceed the glare criteria in the IIHS test and still comply with FMVSS No. 108; the IIHS protocol allows exceedances in the form of cumulative exposures as opposed to hard pass/fail limit at a single point in time, resulting in a series of demerits (based on the percentage over the limit) for which it is possible for a vehicle to achieve a ''Good'' rating while still offering small amounts of glare. Auto Innovators recommended adopting a similar method for establishing an allowable time exceedance for each test range.

TABLE 5—AUTO INNOVATORS' MODIFIED MAXIMUM ILLUMINANCE CRITERIA BASED ON IIHS PROTOCOL

Distance (m)	Illuminance limit (lx)
30 to 59.9	6

[93] Auto Innovators also supplied an apparently somewhat similar analysis of IIHS data (on pp. 12–13 of its comment). However, the comment did not identify the geometry of the road (the orientation of the headlamps to the photometer) for the measurements, so the agency is unable to evaluate this submission. In any case, NHTSA addresses this issue using the IIHS data submitted by SAE and the agency's own testing of lower beams to the scenarios included in the final rule.

[94] DOT HS 808 209, Sept. 1994.

[95] SAE and other commenters also argued that comparing the ratio of the illuminance from the adaptive beam to the lower beam would also compensate for unaccounted for test variability such as dips and bumps in the road. This is discussed below in Section VIII.C.10.d, Allowance for Momentary Glare Exceedances.

[96] ''Luminance'' refers to the luminous intensity produced by a light source in a particular direction per solid angle, while, as noted earlier, ''illuminance'' refers to the amount of light falling on a surface. The unit of measurement for luminance is candela, while the unit of measurement for illuminance is lux. A measure of luminous intensity in candela can be converted to a lux equivalent (and vice versa), given a specified distance.

[97] Insurance Institute for Highway Safety. *Headlight Test and Rating Protocol, Version III* (July 2018); *Rationale and Supporting Work for Headlight Test and Rating Protocol.* (August 2015).

TABLE 5—AUTO INNOVATORS' MODIFIED MAXIMUM ILLUMINANCE CRITERIA BASED ON IIHS PROTOCOL—Continued

Distance (m)	Illuminance limit (lx)
60 to 119.9	3.4
120 to 220	1

Auto Innovators gave a few different arguments for adopting its proposed glare limits. First, it claimed that the IIHS glare limits better reflect modern headlighting systems. It noted that the proposed glare limits are based, in part, on headlamps typical of the 1997 model year, whereas the IIHS protocol is based on contemporary headlighting systems. Next, Auto Innovators contended that the IIHS protocol accounts for research indicating that the harmful effects of glare depend on both peak illuminance and overall dosage of glare exposure. Finally, Auto Innovators contended that the IIHS methodology accounts for glare effects due to incidence angle whereas the Feasibility Study does not. Auto Innovators recommended eliminating the 15–29.9 m measurement range (for both oncoming and preceding scenarios) because its test data showed not only that the least amount of failures occurred in this interval but that the exceedance durations for all failures in this range were 1.0 second or less.[98]

In addition to recommending NHTSA adopt its suggested glare limits, Auto Innovators recommended that the final rule require passage of a percentage of averaged individual illuminance readings to achieve compliance instead of looking to the maximum recorded illuminance in each measurement range. Specifically, Auto Innovators appeared to suggest that NHTSA perform three test runs for each scenario and average the maximum illuminance in each measurement range recorded for each scenario. Then, it asks that NHTSA allow up to 15% of the averaged illuminance readings to exceed its recommended glare limits by up to 25%. Auto Innovators cited the same UMTRI and NHTSA reports referenced earlier, as well as three inconsequentiality petition grants as the basis for the 25% allowance.[99] Auto Innovators commented that the 15% allowance comes from the turn signal test requirements in S14.9.3 of FMVSS No. 108. It contended that this amount of performance variation is consistent with the challenges of outdoor dynamic testing where little previous experience exists, especially compared to the highly-controlled laboratory photometric testing that has previously been used. Auto Innovators commented that it would be difficult not to attribute failures of illuminance readings to variances that could appear in the novel and unique aspects of the test procedure, rather than to quality control issues, particularly where the time and complexity of the testing preclude conducting it on multiple ADB-equipped vehicles. It also asserted that this approach is consistent with the standard's design to conform language. Mobileye similarly suggested specifying a pass/fail ratio for the measured illuminance values in each specified measurement interval.

Agency response

NHTSA agrees with the commenters that the proposed glare limits were overly stringent at some geometries and measurement distances in that a current, FMVSS No. 108-compliant lower beam would not have complied with some of these requirements. The agency has therefore modified the proposal by deleting the short right curve scenario and modifying measurement distances for other specified radii of curvature. NHTSA believes that these modifications reasonably ensure that a lower beam that complies with the current FMVSS No. 108 photometry requirements would be within the glare limits as applied in the specified measurement ranges in each of the final scenarios. This is discussed in further detail in Section VIII.C.8, Test Scenarios.[100]

NHTSA disagrees with some commenters' suggestions to follow SAE J3069 and only consider an ADB system as not complying with the glare limits if the measured ADB illuminance exceeds 25% of lower beam illuminance. The final rule differs from the proposal by eliminating overly stringent scenarios and providing additional adjustments to account for testing variability, including data filtering procedures and an adjustment for vehicle pitch, in addition to the proposed allowance for momentary glare exceedances. The agency believes that these modifications obviate the need for any further glare limit allowances. While more relaxed test requirements might facilitate ADB deployment, they would not ensure that ADB systems function properly. We believe that the final requirements and test procedures strike a reasonable balance between visibility and glare prevention.

Neither the UMTRI report nor the comments relating to the NHTSA research cited by the commenters are persuasive. The UMTRI report concerned the evaluation of inconsequentiality petitions, not the appropriate magnitude of the lower beam maxima, which is the relevant issue when considering the appropriate level for the glare limits.[101] As explained in the NPRM, the proposed glare limits were based on FMVSS No. 108's longstanding Table XIX photometric maxima. While the 2015 ADB Test Report did examine how close the observed ADB illuminance values were to the relevant glare limit, including an analysis of the effect on the results of increasing the glare limits by up to 25%,[102] the analysis did not concern ''just noticeable differences'' or state or imply that exceedances of up to 125% of the relevant glare limit were inconsequential. Instead, the purpose of this analysis was to ''see whether increasing the glare limit would have changed an exceeding result to a non-exceeding result.'' [103] The 2015 ADB Test Report also examined the ratio of ADB illuminance to lower beam illuminance. This analysis was intended to evaluate ADB functionality, not as a means of evaluating ADB compliance. This was particularly useful because some of the lower beam headlighting systems tested in the 2015 study were not designed to meet the requirements

[98] Auto Innovators also argues that glare exceedances at these short distances may be caused by swiveling of the headlamps. While this only applies to swiveling beam ADB systems, Auto Innovators believes that any safety standard should remain technology neutral.

[99] 85 FR 39678 (July 1, 2020) (grant of petition for inconsequential noncompliance for side marker lamp below photometric minima); 85 FR 39679 (July 1, 2020) (grant of petition for inconsequential noncompliance for rear reflectors below minima); 55 FR 37601 (Sept. 12, 1990) (grant of petition for inconsequential noncompliance for taillamp exceeding maxima).

[100] NHTSA anticipates that ADB systems could provide better glare protection than current lower beams if dynamic vertical aim is incorporated into the systems. Current lower beams will produce glare on hills and undulating roads. Because of the nature of the adaptive beam's area of unreduced intensity, it does not have the same sensitivity to aim as a lower beam with respect to seeing distance. For example, an ADB pattern could be aimed down more than a lower beam (preventing glare even when the vehicle pitches) while still providing appropriate seeing distance in directions where glare protection is not required. However, the agency decided not to require additional glare protection performance from ADB systems beyond that currently produced by lower beams (except on right curves) and anticipates aiming strategies might be incorporated into ADB systems in order to maintain reasonable compliance margins.

[101] *See* DOT HS 808 209, Sept. 1994, p. 9 (concluding that ''using 25% as a *criterion for inconsequential noncompliance*'' is appropriate for lower-beam headlamps) (emphasis added).

[102] 2015 ADB Test Report, p. 133.

[103] *Id.*

of FMVSS No.108. Using a ratio allowed for the comparison of basic ADB functionality against the lower beam regardless of the photometric standard to which the lower beam was designed.[104]

Regarding the distances at which to regulate glare, regulating oncoming glare out to 220 m is appropriate. As the Feasibility Study explained, at greater distances a smaller glare limit is appropriate because, at greater distances, ''the glare source will be seen by the oncoming driver at a smaller angle.'' [105] NHTSA was able to test the final scenarios out to this distance (where applicable) and did not encounter any testing difficulties related to this distance. On the other hand, NHTSA did not develop testing scenarios for oncoming glare at distances greater than 220 m, and so is not prepared to test beyond that distance. The reasons for regulating oncoming glare out to 220 m are discussed in greater detail in Section VIII.D.4, *Requirements for area of unreduced intensity.* NHTSA does agree with SAE that it is more appropriate to test preceding glare only out to 100 m, and not the proposed 120 m. The reasons for this are discussed in more detail in Section VIII.C.8.g, Scenario 7: Preceding Straight.

The agency disagrees with Valeo's assertion that specifying the glare limits as a stepwise (discontinuous) function of distance will result in dramatic fluctuations in light output. The glare limits are photometric maxima, not design requirements, and there is no reason to think that manufacturers will design headlamps that suddenly increase or decrease in brightness for reasons unrelated to road conditions. Moreover, the laboratory requirements that reference the Table XIX photometric maximum intensity limits preclude manufacturers from producing areas of reduced intensity that vary as Valeo would suggest. In fact, the output limits specified in Table XIX require lower beam intensities (which is what the agency requires the ADB systems to produce in the area of reduced intensity) well below those calculated by Valeo at the further distances of the measurement subrange.

While the final rule could have specified the glare limits as a continuous function of distance, this would have been more complicated. In any case, the stepwise specification is less stringent than specifying glare limits as a continuous function of the closing distance between the test vehicle and the test fixture. The glare limits for each of the four specified ranges was derived from the shortest distance in the range, and then applied to all the (further) distances in the range. As the Feasibility Study explained, however, the glare limits are derived to decrease as distance increases.[106] Therefore, if the glare limits were specified as a continuous function of distance, they would decrease throughout the interval as distance increased. By specifying the glare limits as a stepwise function, the glare limits are higher at the further distances in the interval than they would have been if we specified them as a continuous function of distance. This has the benefit of simplicity. It also essentially gives manufacturers an additional margin for error than they would have had if we specified the limits as a continuous function of distance. The final rule has, however, incorporated Valeo's suggestion to clarify that the requirements apply to the entire ADB system.

Intertek makes an interesting suggestion for quantifying perceived glare. However, based on the agency's stated goals of minimizing the cost impact of the regulation and providing a pathway for introduction of ADB systems for use on U.S. roadways as quickly as possible, the final rule does not adopt Intertek's suggestion. To do so would require additional research to inform the agency on how such changes would affect the glare and photometry limits specified, as well as any costs associated with requiring the agency and the industry to switch from test methods designed around measuring illuminance at the test vehicle to measuring luminance. The agency simply has no data to support such a change at this time.

NHTSA understands Auto Innovators' suggestion to adopt the IIHS glare limits as related to their general argument that the proposed glare limits and test scenarios were too stringent. As explained earlier, NHTSA agreed with this point to some extent and modified the measurement distances, test scenarios, and allowances accordingly. However, the agency does not adopt Auto Innovators' glare limits for two reasons.

First, the glare limits suggested by Auto Innovators are three times the proposed limits, which are based on the current photometry requirements. The intent of this rulemaking is to permit ADB without increasing glare from levels currently on the road. NHTSA's testing showed that Auto Innovators' suggested limits do not represent glare produced by compliant lower beams under the controlled driving situations that are part of the ADB test, particularly for straight and left curve scenarios. For the left curve and straight path scenarios, testing of the Fusion and Volvo demonstrated that a considerable margin is achieved with the proposed glare limits.[107] See Table 6. These same types of margins are present throughout our lower beam testing. This confirms that these limits provide a boundary to protect the public from additional glare beyond what is currently experienced on the roads today. See also the discussions of lower beam performance on various scenarios in Section VIII.C.8, Test Scenarios. The commenter's suggested limits would significantly increase that boundary and permit substantially higher glare on the roads.

TABLE 6—LOWER BEAM ILLUMINANCE MARGIN FOR PROPOSED GLARE LIMITS

Range (m)	Glare limit	Max illum.	Margin (%)
Volvo 210 m left curve at 42 mph			
150.0–120.0	0.3	0.051	83
119.9–60.0	0.6	0.158	74
59.9–30.0	1.8	0.788	56
29.9–15.0	3.1	2.118	32

[104] Although commenters did not suggest it, we also decided not to adopt an adjustment such that if ADB illuminance exceeds an applicable glare limit, the exceedance would be considered a noncompliance only if the ADB illuminance exceeded the lower beam illuminance (*i.e.,* without a 25% cushion). The reasons for this are the same as the reasons for not adopting the commenters' recommendations.

[105] Feasibility Study, p. 23.

[106] *Id.*

[107] The Fusion used had not been rated by IIHS. The Volvo was rated ''acceptable'' by IIHS.

TABLE 6—LOWER BEAM ILLUMINANCE MARGIN FOR PROPOSED GLARE LIMITS—Continued

Range (m)	Glare limit	Max illum.	Margin (%)
Fusion 400 m right curve at 54 mph			
70.0–60.0	0.6	0.415	31
59.9–30.0	1.8	0.933	48
29.9–15.0	3.1	1.394	55

Second, the agency believes the proposed oncoming glare limits (which are derived from the Table XIX left side photometric maxima) are most appropriate for any oncoming scenario—including right curves—because they were derived from limits designed specifically for oncoming traffic (which in the United States are typically to the left, except on right curves). Auto Innovators' suggested limits may be appropriate for the right side of lower beams where the compromise between seeing distance and glare places greater value on seeing toward the right side. This is appropriate for a static beam pattern that limits glare in all horizontal directions no matter where the other road user is located. If one thinks of oncoming interactions as being oriented in terms of either straight, left curve, or right curve, two of these three (straight and left curve) have the other vehicle toward the left of the subject vehicle's headlamps. So, for those two situations, it is better to allow more potential glare to the right side of the road (where other road users are less likely to be) in order to provide some seeing light in that direction. For the remaining right curve situation, the beam is still limited, but less so, and some glare is expected to account for better seeing distance toward the right for the other two situations. No such compromise needs to be applied for ADB. The ADB pattern creates a reduced illumination area to the left when the other vehicle is to the left and an unreduced area to the right. When the other vehicle is toward the right, the same protection can now be applied to those encounters as to the straight and left, without sacrificing seeing distance. As such, the agency is using the glare limits derived for the left side oncoming curve scenario for the right curve scenario.

The agency acknowledges the relationship between dosage (the product of illuminance and duration) and the disabling effects of glare. For glare control, the IIHS headlamp rating procedure uses a derivative of dosage (distance for which a limited illuminance is exceeded). However, the quantified crash risks associated with exceeding these limits is not clear. Research the agency conducted in 2008 began to explore this relationship, noting that ''specification of the integrated (summed) values throughout the segment would be more likely to provide control for glare recovery, but would involve headlamp light measurement procedures that are more complex than those currently used to determine if a headlamp meets the FMVSS 108 requirements.'' [108] Until this final rule, the basic structure of the headlighting regulation (goniometer—photometry) did not provide a foundation for which glare dosage could be readily measured and regulated. As such, the agency has not focused its research in this area. While NHTSA agrees that a qualitative relationship exists, the agency has not established, and does not know of, a quantified relationship between glare dosage and crash risk.

Another limitation of IIHS's method is that it considers all glare doses equal (except for distances between 5 m and 10 m). The impacts of glare, however, are also related to the angle between the glare source and the line of sight of the viewer. The glance pattern of drivers in nighttime glare situations is not well understood, as some drivers may be inclined to look toward the glare source effectively causing the angle between the line of sight and the glare source to be zero.[109] To the extent that a driver follows driver's education recommendations and does not look at the glare source, glare doses in roadway interactions are not equally impactful at all distances, as the angle between the glare source and the line of sight is smaller at far distances. Such an effect is reflected in the current photometric tables and was, in fact, taken into account in the glare limits derivation in the Feasibility Study, in that the glare limits are smaller at greater distances.[110] NHTSA therefore disagrees with Auto Innovators that the IIHS study accounts for glare effects due to incidence angle.[111]

NHTSA is therefore finalizing the glare limits as proposed. Future development of glare dosage as full vehicle dynamic testing for headlighting systems continues to mature is of interest to the agency.

With respect to Auto Innovators' comments regarding specifying an allowance of 25% over the glare limits, we disagree with this for the reasons given above regarding the evaluation of the ratio of adaptive driving beam to lower beam illuminance. NHTSA also does not find the cited inconsequentiality petition grants to be persuasive because they did not concern headlamps, and, except for one of the petitions, did not concern glare. The agency was also not persuaded by the suggestions by Auto Innovators and Mobileye to adopt a pass/fail ratio or to average a number of test runs in order to mitigate test-related variability. Such procedures, while occasionally specified in an FMVSS, would be unusual. In any case, we do not believe this is necessary here for two reasons. First, we believe the final test procedure already has sufficient allowances for test-related variability (an allowance for momentary glare exceedances, a vehicle pitch adjustment, and the application of a low-pass filter with a cutoff frequency of 35 Hz).[112] Second, we conducted a repeatability analysis and found the final test procedure to be repeatable.[113]

5. ADB Adaptation Time

The NPRM included a 0.1 second or 1 m magnitude allowance for momentary glare exceedances. This was intended to account for variations in illumination due not to the ADB system but to uncontrolled or uncontrollable

[108] DOT HS 811 043 Nighttime Glare and Driving Performance: Research Findings, 2008.

[109] 2007 Report to Congress, pg. iv.

[110] *See* Feasibility Study, p. 23.

[111] In addition, we note that the negative impacts of glare are not limited to disabling glare, but are also related to the annoyance and even painful experience of other roadway users. NHTSA's 2008 research concluded that ''the peak illuminance, rather than the dosage, was the primary factor associated with rated discomfort.'' DOT HS 811 043 Nighttime Glare and Driving Performance: Research Findings, 2008.

[112] *See* Section VIII.C.10, Data Acquisition and Measurement.

[113] *See* Section VIII.C.11, Repeatability.

testing variables. This differs from an allowance for an *adaptation time,* which would account for the operation of the ADB system—specifically, the time it takes an ADB system to recognize a stimulus (once the stimulus is within the camera's field of view) and respond by dimming the beam, switching from an area of unreduced intensity to an area of reduced intensity. SAE J3069 specifies a 2.5 second maximum ADB adaptation time during the sudden appearance test drive. (The NPRM did not include a ''sudden appearance'' scenario because the system's ability to respond quickly is exercised by the shorter-radii curve scenarios.) The NPRM did not propose a time limit within which an ADB system would be required to respond to a stimulus, but sought comment on whether one should be included in the regulation.

Comments

Some commenters interpreted the 0.1 second allowance for momentary glare exceedances as an adaptation time allowance.[114] Mobileye, Ford, Honda, Volkswagen, and Auto Innovators contended that 0.1 second is not technically feasible and the final rule should specify a duration greater than 0.1 second because ADB systems need time to recognize the stimulus and modify the beam. Mobileye and Ford stated that without this, ADB systems would behave erratically, and Mobileye stated that it would result in many more false positives, leading to reduced visibility. Honda asserted that an insufficient time allowance would disincentivize the deployment of systems that operate over a wide range of conditions, and might especially be an issue on curves with a radius of 320–380 ft, on which an opposing vehicle will enter the ADB vehicle's field of view suddenly at a close distance. Honda suggested an allowance for an adaptation time sufficient to ensure that ADB systems have an appropriate amount of time to react to the sudden appearance of other vehicles or when environmental lighting changes dynamically when driving.

Mobileye, Ford, Volkswagen, and Auto Innovators specifically supported the 2.5 second ''reaction time'' specified in SAE J3069. Ford commented that 2.5 seconds is reasonable based on its extensive experience with auto beam switching systems similar to ADB systems available internationally. Mobileye also noted that ECE R48 defines the minimal distance below which glaring is not allowed. Auto Innovators commented that its test data showed that a majority of exceedances were less than 2.0 seconds, with only a few exceedances over 2.5 seconds (limited to scenarios in which the stimulus vehicle was difficult to detect, such as the stationary motorcycle). Mobileye, Volkswagen, and Auto Innovators commented that 2.5 seconds would still be an improvement over human-driver reaction time.

In contrast, AAA asserted that 2.5 seconds is inordinately long, and that the reaction time should be decreased to approximately 1 second, based on its research which showed that glare from an oncoming vehicle lasting approximately 1 second was rated as highly distracting.

Agency Response

Although the final rule does not specify an allowable ''adaptation time,'' the agency does agree that the final rule should generally take into account how long it takes a typical, well-designed ADB system to respond. Typical ADB adaptation times are a little over 1 second. An ADB test report published by SAE in 2016 reported a reaction time of about 1.1 seconds.[115] NHTSA's testing showed comparable times, ranging from .56 seconds to 1.22 seconds when suddenly exposed to a stimulus.[116] These reported adaptation times are much less than the 2.5 seconds specified in SAE J3069.

In addition, at the speeds the track tests are conducted, the test vehicles will cover a significant amount of the measurement distance within an adaptation time of 2.5 seconds (nearly 28 m at 25 mph, or 55 m at 50 mph). For example, the SAE sudden appearance scenarios specify that the fixture lamp be suddenly exposed when the test vehicle is between 155 m and 100 m from the fixture. At 55 mph (24.6 m/s) the test vehicle will have traveled 61.5 m in 2.5 s. If the fixture lamps were activated at 100 m, this means that the test vehicle would be about 40 m from the fixture by the time the 2.5 second allowance had elapsed. This would mean that only one illuminance value (at 30 m) would be evaluated by the SAE test. Similarly, in a real-world vehicle interaction, with two vehicles approaching each at 70 mph (31.3 m/s) each, if the ABD system takes 2.5 s to react, the two vehicles will have traveled 157 m before the ADB system reacts.

After consideration of the studies and data discussed above, NHTSA believes that an ADB adaptation time of 2.5 seconds is exceedingly long. The final rule does not specify an adaptation time, however, because the final scenario parameters have generally been specified so that glare is not regulated until the fixture has been within the field of view of a typical ADB system (25 degrees to each side) long enough for the system to react (for example, in the small left curve scenario the fixture is within the camera's field of view for approximately 1.24 s before the fixture enters the measurement distance range for that scenario). There are some exceptions to this. For some of the smaller-radii curve scenarios, the final rule begins regulating glare at a distance at which a typical ADB system might not have had time to react. Even here, however, there is not a need for an adaptation time because a typical ADB system would not exceed the glare limits even at these distances. At these further distances, because there will be a relatively wide angle between the test vehicle headlamps and the test fixture, the upper beam illuminance at those angles (and distances) is not likely to exceed the applicable glare limit. There is also no apparent safety need for directing high illuminance at such wide angles. These points are covered in more detail in the sections below for the various test scenarios.

6. Test Fixture Specifications

The NPRM identified test fixtures, including those specified in SAE J3069, as a regulatory alternative. The NPRM explained that SAE J3069 specifies four test fixtures: An opposing car/truck fixture; an opposing motorcycle fixture; a preceding car/truck fixture; and a preceding motorcycle fixture. The NPRM explained that the SAE fixtures are fitted with lights intended to simulate actual vehicle lamps; the lamps are intended to represent reasonable worst-case for intensity and location and promote repeatability. For headlamp representations, the SAE standard specifies a lamp projecting 300 cd of white light in a specified manner and angle instead of actual headlamps. In addition to being intended to represent a reasonable worst-case condition, the SAE J3069 rationale also states a ''concern that if the actual lower beam headlamps were used on the opposing vehicle test fixture the large gradients present in typical lower beam patterns would cause unnecessary test

[114] The proposed allowance for momentary glare exceedances (intended to account for uncontrolled test-related variability) is discussed in Section VIII.C.10.d.

[115] Assessment of Adaptive Driving Beam Photometric Performance (SAE 2016–01–1408), p. 3. This included the time it took for an experimenter to turn on the stimulus vehicle headlamps at a predetermined distance, so the actual system response time was shorter than this.

[116] 2015 ADB Test Report, p. 92.

variability.'' [117] For the taillamp representations, SAE J3069 specifies lamps emitting no more than 7 cd of red light in a specified manner and angle. The fixtures are fitted with photometers positioned near where a driver's eyes or the rearview/side mirrors would be located to measure illumination from the ADB test vehicle headlamps.[118] The lamp and photometer locations are based on ''median location values provided by [the University of Michigan Transportation Research Institute].'' [119]

The NPRM identified and sought comment on potential issues with the SAE J3069 fixture specifications, particularly whether using simulated lamps instead of actual vehicle lamps was sufficiently realistic. We stated that test fixtures may encourage an ADB system designed to ensure identification of test fixtures rather than actual vehicles, which might not adequately ensure that the system performs satisfactorily when faced with a wide range of real-world vehicles and, particularly, real-world vehicle lighting. We stated that we were not confident that the lamps specified in SAE J3069 represented a worst-case scenario. As one example of this, we noted that the minimum intensity allowed for a taillamp is 2.0 cd at H–V and as low as 0.3 cd at an angle of 20 degrees. These values are considerably lower than the 7.0 cd lamp specified in SAE J3069. We therefore sought comment on the extent to which narrowly-defined lamps can be used to establish performance requirements that reasonably ensure an ADB system will recognize and adapt appropriately to the wide range of lighting configurations permitted under FMVSS No. 108. We also noted, with respect to the concern raised in SAE J3069 that using actual lower beam headlamps on the opposing vehicle fixtures would lead to test variability, that in the real world an ADB system must be able to identify headlamps from many different types and models of vehicles; if an ADB system was so sensitive to actual headlamp gradients that those gradients affected ADB system performance, the variability would be attributable to the ADB system, not the test.

Comments

The agency received several comments relating to test fixture specifications. While many manufacturers urged NHTSA to adopt SAE J3069,[120] some commenters identified potential concerns with the SAE J3069 fixtures. Mobileye commented that the major drawback of SAE J3069 is the use of synthetic stimulus light sources, which presents a challenge because in actual driving scenarios, the system is trained to ignore the types of synthetic light sources specified in SAE J3069 because they are more likely to be lights from houses, driveways, or other non-vehicle sources. Mobileye pointed out that vehicle headlamps differ from the SAE fixtures in shape, power source (DC), and having a distinct non-uniform light dispersion pattern. Mobileye suggested that placing lamps on static fixtures will force an ADB system to react to light sources even when it positively recognizes them as not being part of a vehicle. Mobileye recommended that the fixture closely resemble a ''uniform'' or ''standard'' vehicle with lamps representative of those approved by FMVSS No. 108 instead of the static fixtures specified in SAE J3069, so as not to force the ADB system to downgrade its real-life performance to comply with a synthetic test.[121] Intertek commented that it is possible for image recognition software to be adjusted to specifically identify and respond to the SAE J3069 test fixture and test track without necessarily ensuring adequate real-world performance.

We also received comments on the proposed stimulus vehicle lighting that are equally relevant to test fixture lighting. Bosch recommended that, to ensure system robustness, NHTSA specify stimulus vehicles with a wide variety of light source technologies and consider utilizing a reference publication such as the Ward's Automotive Yearbook to stay current with rapidly evolving headlamp technology. Honda noted that the NPRM did not specify which headlamp beams should be activated on the stimulus vehicle and suggested that the final rule clarify that this is the lower beam. Auto Innovators raised the possibility of a situation where the regulation specifies a specific vehicle or vehicle component, but the item is later determined to be noncompliant or subject to manufacturer in-cycle design changes or modifications. Auto Innovators suggested that this potential for non-compliance presents an unforeseeable uncertainty to the compliance process, because such changes will not always be known at the time a manufacturer of the ADB vehicle conducts self-certification testing or to a third-party conducting compliance testing for the agency.

Agency Response

The final rule specifies test fixtures conforming to SAE J3069 with respect to the types of fixtures and photometer placement. The final rule departs from SAE J3069 by specifying vehicle lamps from high-selling vehicles instead of lamps intended to simulate vehicle lighting.

The final rule specifies the same four types of fixtures specified in SAE J3069: An oncoming car/truck fixture; a preceding car/truck fixture; an oncoming motorcycle fixture; and a preceding motorcycle fixture. The final rule follows the SAE specifications for the locations of the stimulus lighting. SAE based these locations on data regarding the typical mounting locations of vehicle lighting. NHTSA agrees that these locations are appropriate, and within the FMVSS No. 108 mounting location requirements.

The rule also follows SAE J3069 for the locations of the illuminance meters. SAE based these locations on data regarding typical driver's eye heights and mounting locations for the rearview/side mirrors. The illuminance meter locations specified in the final rule are the same as in the proposal, with one exception. In its recent revisions to SAE J3069, SAE revised the specifications for the placement of the illuminance meters (corresponding to two side-view mirrors) on the preceding motorcycle fixture. The revision notes that the figure depicted in the prior version of the practice showed the mirrors to be 0.2 m from the centerline of the rear position lamp, which is not consistent with the FMVSS No. 111 required minimum. FMVSS No. 111 requires that each motorcycle have a mirror ''mounted so that the horizontal center of the reflective surface is at least 279 mm outward of the longitudinal centerline of the motorcycle.'' [122] The revised version of SAE J3069 shows the motorcycle mirror separation to be 0.4 m, which is consistent with the FMVSS No. 111 required minimum. The specification in the final rule adopts this revised specification.

We did, however, agree with Mobileye that—as we also tentatively concluded in the NPRM—the simulated lamps specified in SAE J3069 would not be sufficiently realistic. We therefore agreed with Mobileye's and Auto Innovators' suggestions to use standardized vehicle lamps on the fixtures. The final rule therefore departs

[117] SAE J3069, p. 4.

[118] SAE J3069 5.5.2 and Figures 1 and 2 (opposing vehicle fixture); 5.5.3 and Figures 3 and 4 (preceding vehicle fixture).

[119] SAE J3069, p. 3.

[120] *See* Section VIII.O, Regulatory Alternatives.

[121] Auto Innovators also suggested using standardized headlamps and taillamps in lieu of the proposed broad range of actual stimulus vehicles.

[122] S10.1.

from SAE J3069 and specifies actual vehicle lamps for the fixtures. The reasons for this choice are explained in more detail below. The final rule specifies headlamp assemblies from a 2018 Ford F–150 (halogen) and a 2018 Toyota Camry (LED). For motorcycles, the final rule specifies a 5.75 inch headlamp assembly from a 2018 Harley Davidson Sportster using an HB2 replaceable light source.[123] The rule specifies right and left taillamp assemblies from a 2018 Ford F–150 incandescent rear combination lamp and right and left tail lamp assemblies from a 2018 Toyota Camry combination lamp. For motorcycles, the final rule specifies a layback LED taillamp assembly from a 2018 Harley Davidson Roadster.

There were several reasons for specifying actual vehicle lamps. NHTSA agrees with the concerns Mobileye identified regarding the use of synthetic fixture lighting and with Intertek that specifying synthetic lighting could result in vehicle manufacturers programming systems to recognize unrealistic fixtures, thus decoupling compliance test performance from actual performance.[124] The agency's intent was to specify a variety of light source technologies that are common in the market in order to assess how an ADB system performs with respect to light systems it will encounter while in actual use on the roads. This will discourage manufacturers from designing specifically to fixture lamps lacking characteristics typical of actual automotive lamps (*e.g.,* non-uniform illuminance, variations in shape). Using actual vehicle lamps also reduces the cost of manufacture of the test fixture (since the highly specialized SAE fixture lighting is much more expensive). The agency agrees with Bosch that it is important that the lamps on the fixtures continue to be representative of vehicle lamps in use. To that end, NHTSA envisions future technical rulemakings to amend the lamps specified in the regulatory text.

The agency also does not believe that the synthetic light sources specified in SAE J3069 represent a worst-case scenario. As NHTSA explained in the NPRM, the minimum taillamp intensities allowed by FMVSS No. 108 (2.0 cd at H–V and as low as 0.3 cd at 20 degrees) are considerably lower than the 7.0 cd lamp specified in SAE J3069. NHTSA also does not agree with SAE that specifying actual vehicle headlamps would result in excessive variability, but continues to believe, as stated in the NPRM, that gradients in typical headlamp beam patterns would likely only affect the repeatability of the test if the reaction by the ADB system changes based on this difference. If this is the case, the ADB system will have this issue in actual use (especially since the specified headlamps are from high-selling vehicles and therefore common on the road), and this should not be considered variability attributable to the test, but a failing of the ADB system. In any case, NHTSA's testing showed that the tested ADB system was generally able to recognize the fixtures fitted with these lamps. Comparative test data for the SAE fixtures and the final rule fixtures is presented in the discussions for each scenario (see Section VIII.C.8).

The final rule also clarifies various aspects of the test procedures related to the fixture lamps. It clarifies that the stimulus headlamps will have the lower beam activated and aimed per the SAE Recommended Practice J599 *Lighting Inspection Code* (J599) procedures, as applicable. The final rule also specifies how to power the fixture lamps. SAE J3069 does not specify how to power the test-fixture lighting; this could leave open the possibility of powering the fixture in ways that are dissimilar to how actual automotive head and taillamps are powered, and potentially lead to ambiguities in how performance is measured. Accordingly, the final rule specifies that the lamps will have been energized for at least 5 minutes before each test scenario trial is performed.

The agency considered Mobileye's comment that the fixture should resemble a ''standard'' vehicle but decided not to adopt this. Using a fixture incorporating vehicle elements (*e.g.,* hood, grill) raises issues of which elements to specify and how to specify them. NHTSA did consider implementing a portion of a vehicle in the fixtures, such as a partial front or rear section of a vehicle that would include the original equipment lamps as mounted in the production vehicle. Including a portion of the actual vehicle body would provide a more real-world stimulus with the added detail of some elements of vehicle shape and light reflections on the body surfaces. However, while this option was not examined in NHTSA's research, our research did not demonstrate any significant difference in ADB response between actual stimulus vehicles and the test fixtures we are specifying, suggesting that adding detail elements to the fixture is not necessary.[125]

With respect to Auto Innovators' comment regarding the possibility of a noncompliance of actual vehicle components used as a stimulus in a compliance test, NHTSA recognizes this possibility, but anticipates that the laboratory test procedures will provide for confirming that the vehicle lamps used on the test fixture comply with the applicable FMVSS No. 108 photometry requirements.

7. Test Fixture Placement

The proposal specified stimulus vehicles in the adjacent left lane to evaluate oncoming glare. To evaluate preceding glare, it essentially specified the stimulus vehicle either in the same lane as the test vehicle or in the adjacent left lane.

The final rule, while specifying test fixtures, generally follows the NPRM approach. The test fixture will be placed in the adjacent left lane (from the perspective of the test vehicle) to evaluate both oncoming glare and preceding glare, essentially the same placement as proposed.[126] See Figure 10 (Figures 27–28 in the regulatory text). This corresponds to Fixture Position 2 in SAE J3069. The final rule does not specify fixtures situated similarly to SAE Positions 1 and 3. In the SAE test method, fixtures placed in those locations are primarily intended to simulate curves; the final rule includes curved-path scenarios, so simulating curves with strategic fixture placement is not necessary. The final rule also specifies that the projection of the fixture lamp's optical axis onto the road surface should be tangent to the road edge at the location of the photometer, and that the fixture be centered in the lane.

[123] This is different than the motorcycle headlamp used in NHTSA recent testing. For that testing, NHTSA used a 5.75 inch bullet headlamp kit from a 2018 Harley Davidson Roadster using an HB2 replaceable light source (part #68593–06). After that testing and before the publication of this final rule, that part went out of production and has been replaced with part #68297–05B.

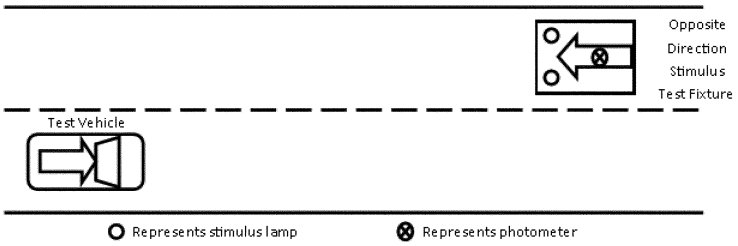
[124] SAE J3069 MAR2021 added a note requiring that any pulse width modulation or similar frequency control be sufficiently above the commercial power grid frequency and updated the conical angle specification. Even with these changes, NHTSA still believes that the finalized vehicle lighting is more appropriate.

[125] SAE J3069 MAR2021 allows the fixture to be ''constructed in a manner that represents the intended vehicle type to avoid false readings that the stimulus fixture is not a vehicle'' (sections 5.5.2.1 and 5.5.3.1). As noted in the text, we considered but did not examine this alternative. However, we believe, based on the results of our testing (see Section VIII.C.2, Test Fixtures vs. Stimulus Vehicles), that specifying actual vehicle lamps makes the fixtures sufficiently realistic so that the ADB system will recognize the fixture as a vehicle.

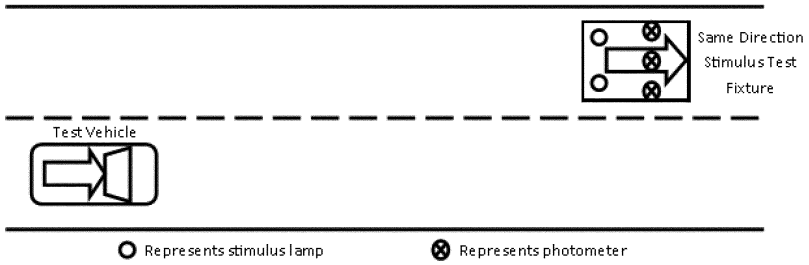
[126] The test vehicle will be driven within the right adjacent lane and will not change lanes.

Figure 10. Final Rule Test Fixture Placement

Opposite Direction Test Scenario



Same Direction Test Scenario



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NHTSA acknowledges that it is common in real-world driving for preceding vehicles to be located in the same lane or in the adjacent right lane. However, the agency believes that simply testing with the preceding fixture in the left adjacent lane will not result in a loss of information about ADB system performance. The purpose of the testing is to evaluate whether the ADB system is working in an integrated fashion; this can be done on either side. While real-world situations with a stimulus to the right side are common, it is reasonable to expect that if a system functions on the left it will also function on the right. Further, the final rule also has tests that include curves to the right, where the detection system is exercised (limited to oncoming and limited distances) on the right side of the field of view.

8. Test Scenarios [127]

a. Scenario 1: Oncoming Straight

The NPRM proposed testing for oncoming glare in a straight-path test scenario at speeds from 60 mph to 70 mph at measurement distances of 15 m to 220 m.

Comments

ALNA, Toyota, SAE, and the Alliance commented that the proposed glare limits are at or well below those regularly occurring today from lower beams, including, the commenters appeared to suggest, in a straight-path scenario. SAE and the Alliance stated that the glare limits are not reasonable if lower beams, including IIHS ''Good''-rated lower beams, would fail to comply. SAE provided a graphical analysis (based on IIHS data) of lower beam illuminance on a straight road (from 0 m to 125 m) for nine MY 2017 IIHS Top Safety Picks, all with FMVSS 108-compliant IIHS-rated ''Good'' headlamps. The graph shows that almost all those headlamps complied with the proposed glare limits at all proposed measurement distances.

Agency Response

NHTSA is finalizing the proposed specifications for this scenario, including the proposal to evaluate illuminance from 15 m to 220 m. The rule thus evaluates glare across a broader range of distances than SAE J3069, which evaluates glare at 30 m, 60 m, 120 m, and 155 m, respectively. The reasons for choosing this range are discussed in the NPRM (83 FR at 51778–51781) and elsewhere in this preamble.

The available data indicate that current lower beams can comply with the glare limits in this scenario. The IIHS data submitted by SAE show that the lower beams for the 9 vehicles for which data was provided were generally within the glare limits on a straight road for all the distances for which the final rule regulates glare. NHTSA's testing also shows that current lower beams would pass this scenario. NHTSA tested the lower beams of a MY 2019 Ford Fusion and MY 2016 Volvo XC90 in this scenario. The measured illuminance of the lower beams was found to be within the glare limits by a considerable margin at all distances. See Figure 11 and Figure 12.[128]

[127] The test scenario numbering used in the preamble and in the final rule regulatory text (at Table XXII) differs somewhat from the test scenario number in the ADB test report and repeatability assessment docketed with this final rule.

[128] The illuminance measured from the higher-mounted photometer representing the truck driver eye point, is, as expected, lower than that measured from the lower-mounted photometer intended to represent a passenger car driver's eye point. For that reason, some of the test data included in this preamble may not report the illuminance values measured from the higher-mounted illuminance meter.

Figure 11 – Ford Fusion Lower Beams (Straight Scenario)

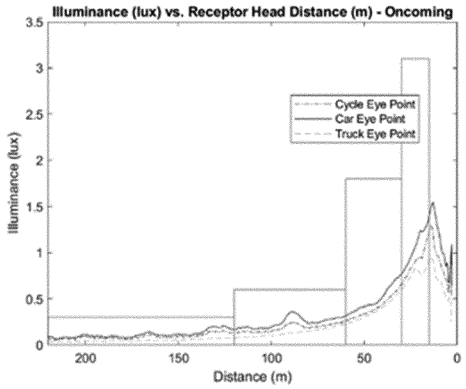
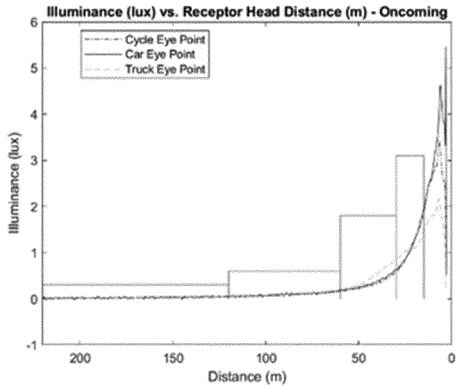


Figure 12 – Volvo XC90 Lower Beams (Straight Scenario)



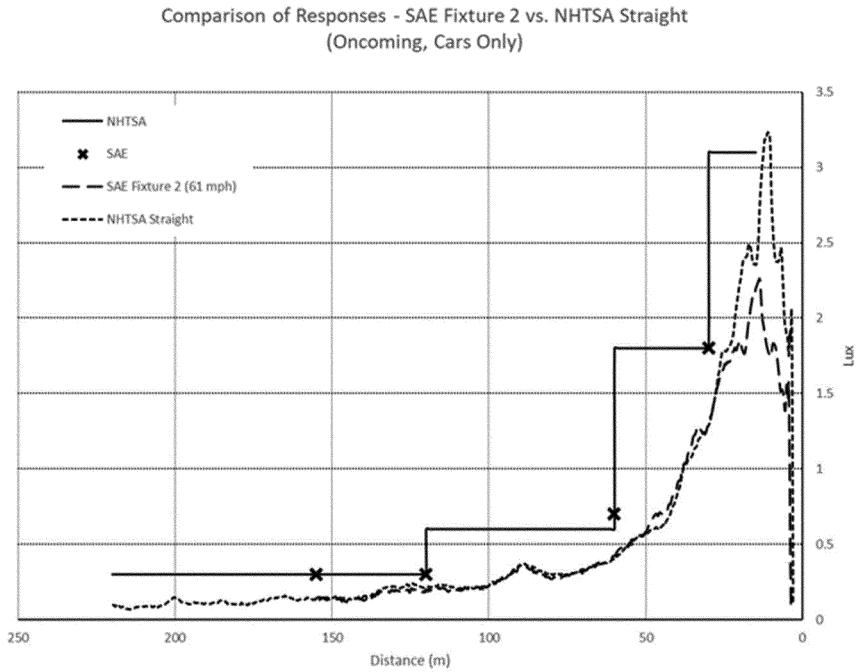
NHTSA's analysis and testing also indicate that current ADB systems can reasonably be expected to comply with this scenario. As Figure 7 makes clear, the fixture is within the ADB camera's field of view at the beginning of the measurement range, at less than 5 degrees left of the center of the field of view. (As noted earlier, the field of view of current ADB systems extends to about 25 degrees left and right.) Accordingly, the ADB system should have sufficient time to detect and react to the fixture stimulus lamps and adjust the beam. The agency's ADB test data confirms this. For example, the ADB system we tested was within the glare limits at all distances when tested with the oncoming car/truck fixture. See Figure 13. Additionally, NHTSA's 2015 testing showed that an older ADB system was able to pass this scenario even when tested with stimulus vehicles, both moving and stationary.[129]

The ADB system also passed the SAE scenario that is the closest analog to this scenario (with the car/truck test fixture in Position 2), and NHTSA did not see a significant difference between performance on the NHTSA and SAE test protocols here.[130] See Figure 13.

[129] 2015 ADB Test Report at p. 103 (Table 23) (results for Audi show adaptive beam within the glare limits at all distances on the straight scenario, with both a static and dynamic stimulus vehicle). Audi indicated that the shaded area of the adaptive beam complied with the FMVSS No. 108 lower beam requirements.

[130] Agency testing showed some anomalies when testing with the motorcycle fixtures (both the final rule fixture and the SAE fixture). For that reason, the results of that testing are discussed separately. See Appendix C.

Figure 13: Lexus ADB, Straight Scenario (69 mph)
Camry Headlamps And SAE Fixture Position 2



b. Scenario 2: Oncoming Small Left Curve

The NPRM provided for testing oncoming glare on left curves with radii of 98 m to 116 m, at speeds from 20 mph to 30 mph, for the full range of 15 m to 220 m.

Comments

In addition to general comments from several manufacturers that the proposal would require ADB systems to produce less glare than current FMVSS No. 108-compliant lower beams, particularly on curves, SAE provided a graphical analysis of IIHS data of illuminance from nine ''Good''-rated lower beams from 0 m to 125 m on a 150 m left curve. The data show that almost all the lower beams were within the glare limits in this entire range, except that one vehicle occasionally exceeded the glare limits between 15 m and 60 m, one vehicle exceeded the glare limits at 15 m, and a couple of vehicles exceeded the glare limits between about 60 m and 90 m.

The Alliance, SAE, OICA, and SMMT commented that current ADB systems would not comply with this scenario because it would necessitate a camera field of view wider than provided on current ADB systems. The Alliance stated that the camera visibility needed to detect a stimulus vehicle on this curve is almost 45 degrees (with a median) and 40 degrees (without a median). Both the Alliance and SAE contended that, should this scenario be retained, camera visibility would have to be extended, which would increase costs, potentially diminish performance in the more critical central portion of the visibility zone, and create disharmonization, limiting the availability of ADB systems in the United States. SAE also stated that upper beams at greater than 15 degrees left or right are not as bright as lower beams straight ahead, and at an angle of 40 degrees the light toward a stimulus vehicle driver is low. SAE stated that this is supported by the fact that millions of semiautomatic beam systems on the roads today are equipped with the same or similar forward vision cameras and detection algorithms as ADB systems and have not resulted in glare complaints. This suggests, SAE asserted, that wide angle visibility (*i.e.,* beyond 25 degrees) is unnecessary and precludes any need to test on curves of these radii.

Honda commented that the proposed 0.1 s or 1 m allowance for momentary spikes does not allow enough time for an ADB system to respond to sudden changes in stimulus lighting, and that this especially might be an issue on curves with a radius of 98 m–116 m, on which an opposing vehicle will enter the ADB system's field of view suddenly at a close distance.

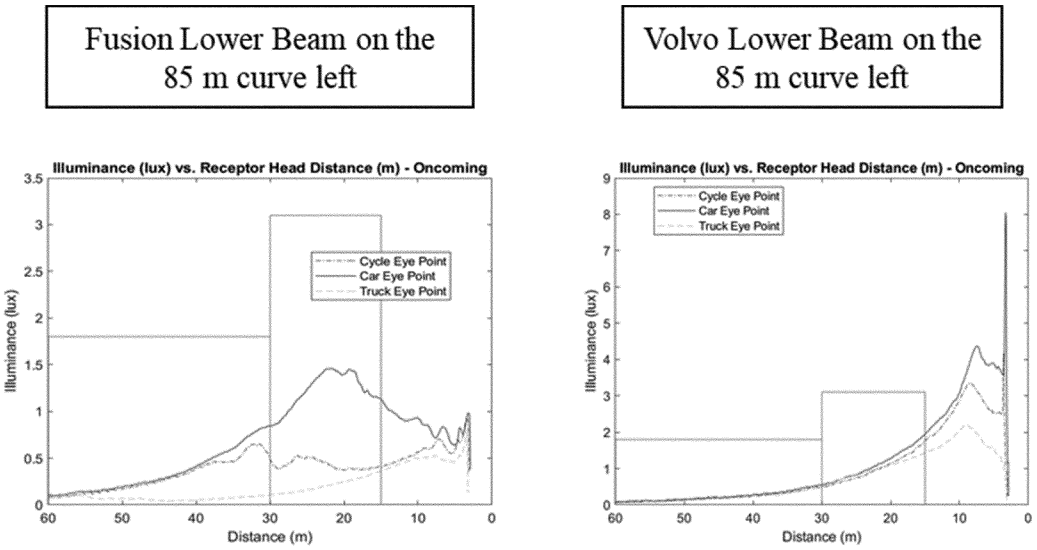
Agency Response

The final rule retains this scenario but modifies the distances at which illuminance from the ADB system is evaluated: The measurement range now begins at 59.9 m [131] instead of the proposed 220 m. The reasons for this are explained below.

First, the available data indicate that current, FMVSS 108-compliant lower beams might not comply with the glare limits at distances greater than 60 m but would generally comply at closer distances. The IIHS data submitted by SAE show that almost all the tested lower beams were almost fully within the glare limits in the modified distance range (15 m–59.9 m), while some of the lower beams exceeded the glare limits for distances greater than 60 m. NHTSA's testing also shows that current lower beams would pass this modified scenario. NHTSA tested two vehicles with lower beams activated on an 85 m left curve, and both vehicles performed well with considerable margins. See Figure 14.

[131] In the regulatory text this is specified as ''less than 60 m.'' Other distance specifications are stated similarly. The preamble discussion simplifies this for ease of exposition.

Figure 14. Lower beam performance on 85 m Left curve



Next, NHTSA believes that this modified specification is within the capabilities of most current ADB systems. On a curve with a 100 m radius, at the highest vehicle speed specified for this scenario (30 mph), the fixture will enter the camera's field of view (25 degrees) at 77 m (see Figure 7). At the distance at which the final rule begins evaluating the system's illuminance (59.9 m), the fixture is therefore well within the camera's field of view (at about 21 degrees). The fixture is not only within the camera's FOV, but has been within the FOV for 1.24 s, which is a sufficient time for an ADB system to react. NHTSA acknowledges that for shorter radii in the specified range, the time elapsed between the fixture entering the system's field of view and the test vehicle reaching the beginning of the evaluation range (59.9 m), may not provide sufficient time for an ADB system to react and switch from an area of unreduced intensity (*i.e.,* upper beam) to an area of reduced intensity. For example, on a curve with an 85 m radius at 30 mph, the fixture will enter the camera's field of view at 63 m. At 59.9 m, the fixture will have been within the system's FOV for 0.13 s. The agency does not, however, expect this to result in a noncompliance because at that distance the headlamps are at a large enough angle to the photometer that the upper beam should be within the glare limits. (Agency testing generally showed that the upper beam was within the glare limits at angles greater than 20 degrees. There are no upper beam photometry requirements at angles wider than 12 degrees. At 12 degrees, Table XVIII specifies (depending on the type of upper beam) a minimum of, at most, 1,500 cd (at horizontal) and 1,000 cd (at 2.5D).

NHTSA's ADB test data bear this out. When NHTSA tested an ADB system at 29 mph on a curve at the upper bound of the range (115 m), the ADB system detected and reacted to the fixture prior to the measurement range. See Figure 15. On the other hand, when testing the ADB system on a curve at the lower bound of the radius range (85 m), the system did not react to the fixture and dim the beam until 41 m—which is after the specified beginning of the measurement range (59.9 m). See Figure 16. However, the illuminance (the upper beam) at these large angles was below the applicable glare limit, and the system was able to react and adapt the beam before the geometry was such that the narrower angle of the upper beam would exceed the glare limit.

Figure 15 - Lexus ADB 29 mph on the 115-m curve Left (Camry HL)

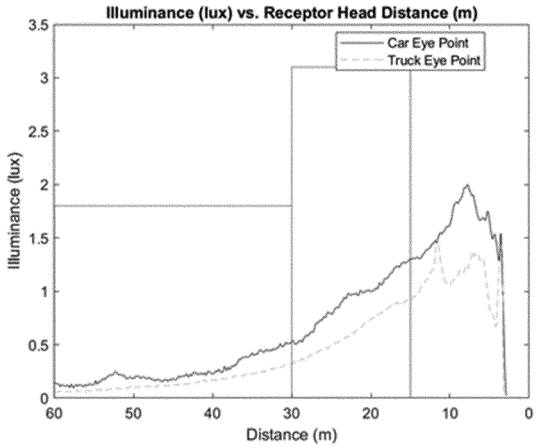
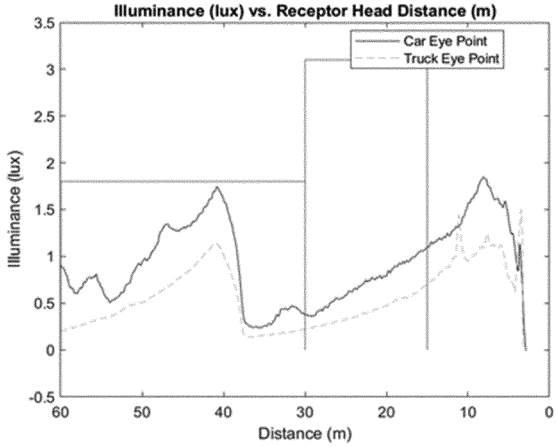
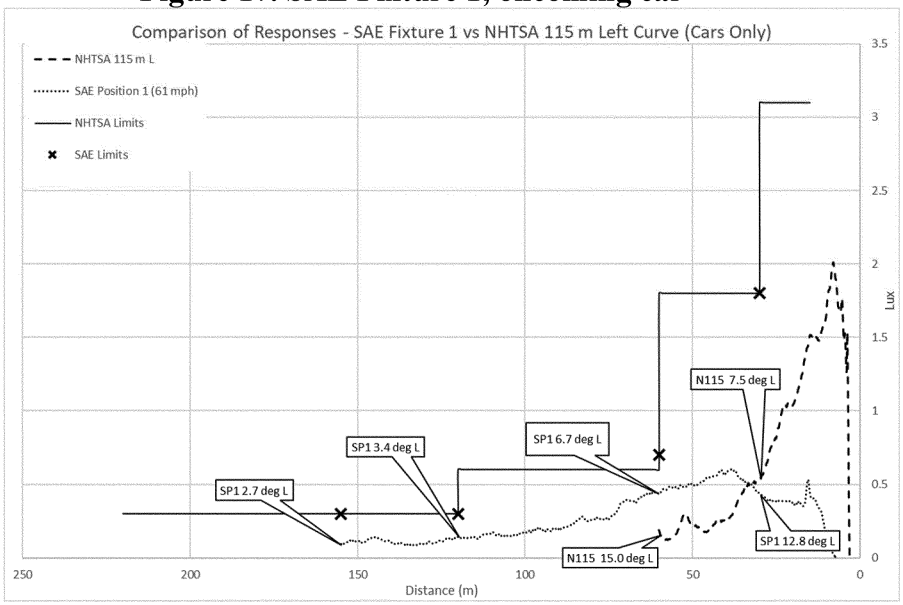


Figure 16 - Lexus run on the 85 m curve left.



NHTSA also tested the SAE scenario that is the closest analog to this scenario (with the oncoming fixtures in Position 1) and observed no glare limit exceedances. See Figure 17. However, the illuminance was, for closer distances, significantly lower than the illuminance measured during the corresponding final rule scenario. This is because, as the test vehicle approaches the SAE fixture, the fixture moves more and more off-angle from the test vehicle as the distance closes, resulting in lower-than-expected illuminance.

Figure 17. SAE Fixture 1, oncoming car



Note: Illuminance as measured from photometer corresponding to the passenger car driver's eye point.

NHTSA notes that this scenario, as modified, does not evaluate illuminance from 60 m to 220 m, so it would not test whether the ADB system switched from an upper beam to an adaptive beam in this range. In the NPRM the agency tentatively concluded that it was important to regulate illuminance in the full range of 15 m–220 m. However, as explained above, NHTSA decided the full range is unnecessary because an upper beam projected at angles larger than 20 degrees is not glaring at distances beyond those at which we are evaluating illuminance in this scenario.

c. Scenario 3: Oncoming Medium Left Curve

NHTSA proposed testing for oncoming glare on left curves with radii of 223 m to 241 m, at speeds of 40–45 mph, for the full range of 15–220 m.

Comments

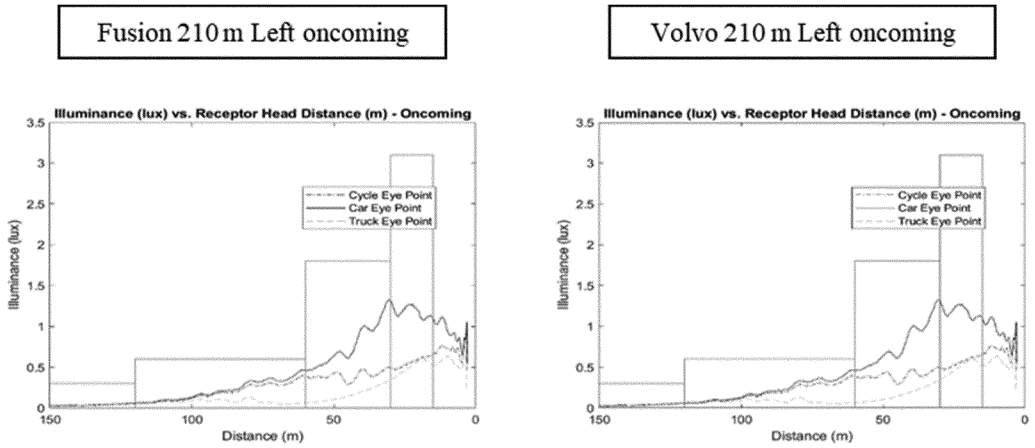
NHTSA received one comment specifically related to this scenario. SAE provided a graphical analysis of IIHS illuminance data (out to 125 m) for nine lower beams on a 250 m left curve showing that all the lower beams were within the glare limits, except for two headlamps that had some exceedances between 60 m and 110 m. As noted earlier, some commenters argued more generally that the proposed glare limits were so stringent that even currently-compliant lower beams would exceed them.

Agency Response

The final rule modifies the measurement range, which now begins at 150 m instead of the proposed 220 m. The rationale for this is analogous to the rationale for limiting the measurement distances for the small left curve.

First, the available data indicate that compliant lower beams would generally comply with these requirements. As explained earlier, this (in conjunction with the requirement that areas of reduced intensity meet the corresponding lower beam laboratory photometric requirements) means that an area of reduced intensity, up to and including a full lower beam, will meet the same level of safety (with respect to both visibility and glare prevention) as current lower beams certified to FMVSS No. 108. The IIHS data submitted by SAE shows that almost all the tested lower beams complied with the glare limits for the distances for which data was reported. NHTSA's testing also shows that current lower beams would pass this modified scenario; both lower beams NHTSA tested had illuminance values within the glare limits by a considerable margin. See Figure 18.

Figure 18. NHTSA Lower beam data

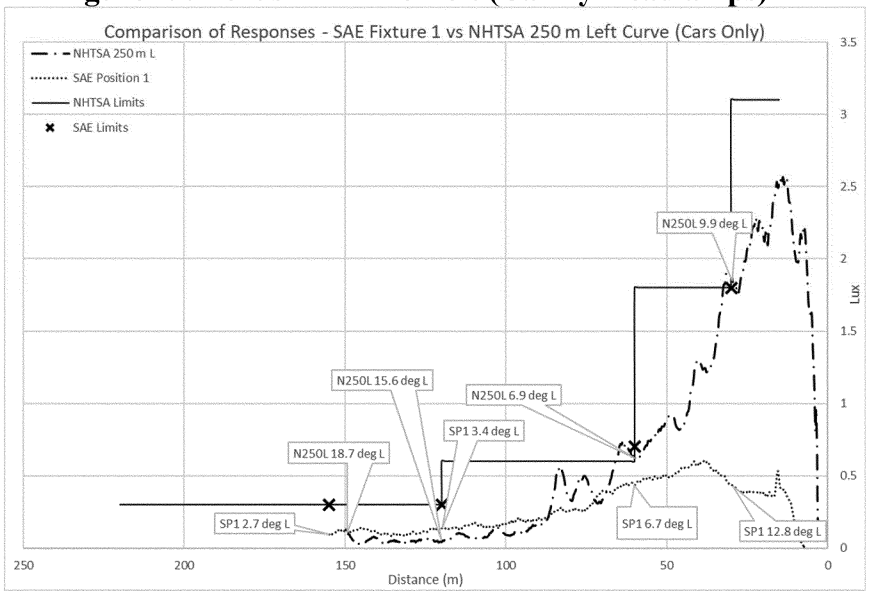


Next, NHTSA's analysis also indicates that the modified specifications are within the field-of-view and adaptation time capabilities of most current ADB systems. For example, on a 230 m curve at 45 mph, over two seconds elapse between the fixture entering the field-of-view and the vehicle reaching the measurement range (150 m), providing the ADB system sufficient time to react and adapt the beams. As with the small left curve, however, for shorter radii in the specified range, the time elapsed between the fixture entering the ADB system's field of view and the vehicle reaching the beginning of the measurement range may not provide sufficient time for the ADB system to adapt and switch from an area of unreduced intensity to an area of reduced intensity. For example, on a 210 m curve, only .57 seconds elapse. However, as with the small left curve, at those distances the headlamps are at a large enough angle to the photometers that the upper beam should be within the applicable glare limit.

Again, NHTSA's ADB test data bears this out. NHTSA tested an ADB system on a 210 m left curve at 44 mph. See Figure 19. The measured illuminance values were within the glare limits except for two exceedances lasting less than 0.1 s (which would not be considered a noncompliance because they are within the allowance for momentary glare exceedances). The ADB system reacted to the fixture at 120 m. Prior to that (*i.e.,* from 150 m to 121.9 m), the ADB system was projecting an upper beam, but the upper beam was within the glare limits.

In comparison, when testing the most analogous SAE test scenario (with the fixture in Position 1) there were no glare limit exceedances, and, at closer distances, the SAE test scenario resulted in lower illuminance values than were measured on the actual left curve.

Figure 19. Lexus ADB 210 Left (Camry Headlamps)



In addition, as noted earlier for the small left curve scenario, although the final rule reduces the start of the measurement distance in this scenario from 220 m to 150 m, this should not present a risk that oncoming vehicles will experience glare outside of 150 m for the reasons discussed earlier.

d. Scenario 4: Oncoming Large Left Curve

The NPRM specified testing for oncoming glare on left curves with radii of 335–396 m, at speeds of 50–55 mph, from 15 m to 220 m.

Comments

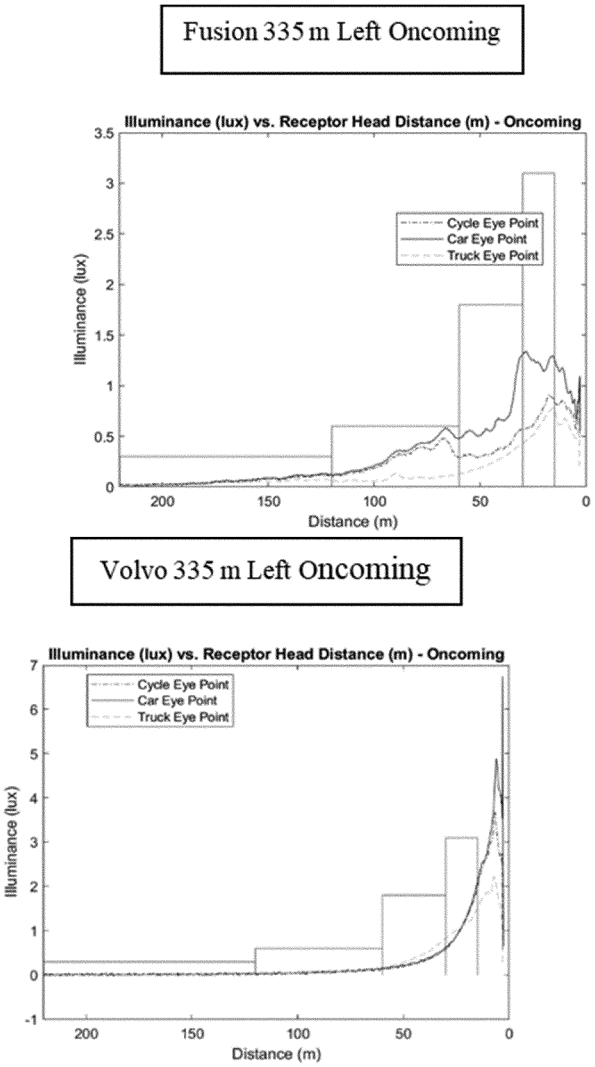
NHTSA did not receive any comments that related specifically to this curve. Commenters argued more generally that currently-compliant lower beams would not always comply with the glare limits, especially on curves, and that there might not be sufficient time for the ADB system to react to the stimulus lighting.

Agency Response

The final rule adopts this scenario essentially as proposed (the largest-specified radius of curvature has been rounded up). Both a lower beam and an ADB system can reasonably be expected to comply with the glare limits throughout this range.

The available data indicate that current FMVSS No. 108-compliant lower beams can comply with the glare limits in the full measurement range. The IIHS data submitted by SAE did not include a left curve with a radius this large. However, the IIHS data did include lower beam performance on a 250 m radius left curve and a straight road. As explained in the preceding section for the medium left curve scenario, all the IIHS-tested headlamps were essentially within the glare limits at all distances for which data was reported (out to about 125 m) on both the 250 m left curve and the straight road. Because the curve in this scenario is essentially between a 250 m left curve and a straight road, it is reasonable to extrapolate that the lower beams tested by IIHS would also have complied on left curves with radii greater than 250 m. NHTSA's test data confirms this. Both the Fusion and the Volvo lower beams were within the glare limits on this curve. See Figure 20.

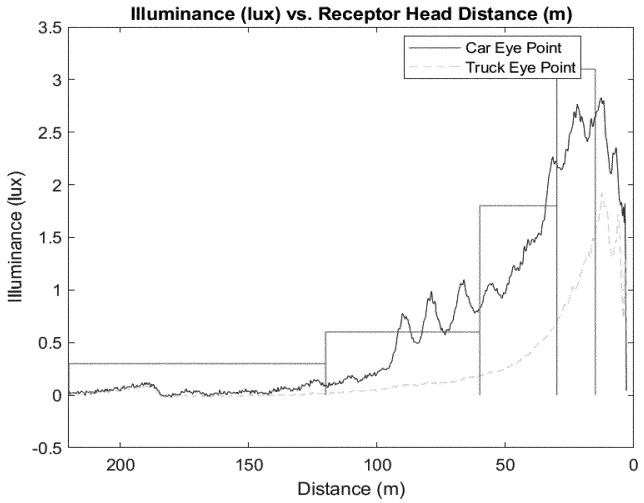
Figure 20. NHTSA-tested lower beams on large left curve scenario



These specifications are also within the capabilities of current ADB systems. On a curve with a 335 m radius at the highest speed specified for this scenario (55 mph), the fixture will enter the camera's field of view (25 degrees) at 283 m (see Figure 7). At the distance at which we will begin evaluating the system's illuminance (220 m), the fixture is therefore well within the camera's field of view (at about 20 degrees), and has been within the FOV for 1.27 s, which is sufficient time for an ADB system to react.

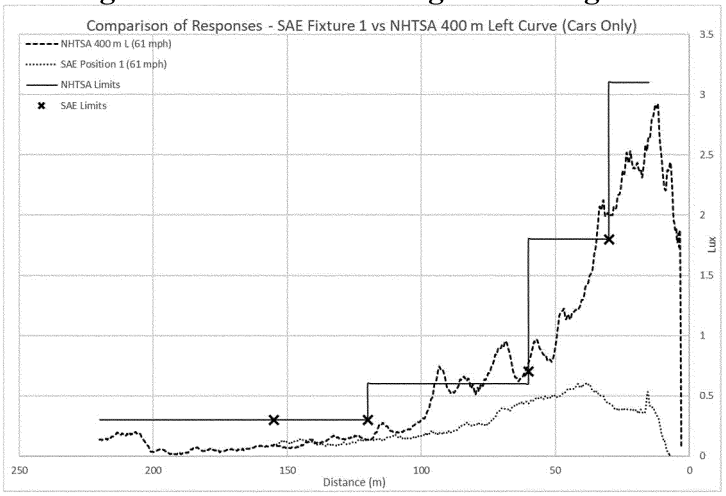
NHTSA's testing confirmed this. The ADB system tested was generally able to respond and shade the fixture in this scenario. See Figure 21. The system reacted at 185 m and performed well from a recognition standpoint. The area of reduced intensity exceeded the limits in the 60–120 m range as well as the 30–60 m range. Because these exceedances last longer than 0.1 s. and occur while the vehicle pitch is less than 0.3 degrees from the average pitch throughout the run, these exceedances would be considered possible noncompliances. However, these failures are relatively marginal, and the beam pattern could be modified to fully comply with this scenario.

Figure 21. Lexus 335 m Left



As with the other oncoming left curve scenarios, the closest SAE test analogue is with an oncoming fixture in Position 1. Again, NHTSA's testing showed that, compared to NHTSA's test, the SAE test resulted in much lower illuminance at close distances than on an actual curve. See Figure 22. Thus, data indicate again that the two test methods can yield different results, and that the actual curve test is preferable because it would be more evaluative of real-world performance.

Figure 22. SAE test vs. large oncoming curve scenario



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e. Scenario 5: Oncoming Medium Right Curve

The NPRM proposed regulating glare on right curves with a radius of 223 m to 241 m, at speeds of 40–45 mph, from 15 m to 220 m.

Comments

SAE provided a graphical analysis of illuminance data for nine IIHS ''Good''-rated lower beams on a 250 m radius right curve from 0 m to 125 m and

stated that it demonstrated none of those lower beams would meet the proposed glare limits. Other commenters argued more generally that current lower beams would exceed the proposed glare limits, especially on curves. Intertek commented that NHTSA should limit the range for right-hand curves to account for lower beam patterns at 3 degrees right. Stanley ran simulations for a 232 m radius right curve and commented that the proposed glare limits appeared to be inconsistent with the current photometric requirement for lower beams at several points (especially from 1R to 3R). It asked that the agency reconsider the proposed glare limits and make them consistent with the current regulatory requirements for lower beams.

Agency Response

The final rule retains this scenario but revises the measurement range to begin at 50 m instead of the proposed 220 m.

NHTSA agrees with the commenters that current compliant lower beams—especially ones that perform well on the IIHS test—would likely not comply with the glare limits from 51 m–220 m. The IIHS data submitted by SAE show that almost all the lower beams tested by IIHS exceeded the glare limits at distances of 60 meters and greater on a 250 m right curve. NHTSA also examined IIHS lower beam data for a 2020 Toyota Camry with ''Good''-rated LED lower beams.[132] IIHS measured that vehicle on a 250-m radius curve to have a 5-lux line at 79.5 m [133] (70 m is the minimum without receiving demerits), which would exceed the applicable glare limit at that distance (0.6 lux).

After considering the comments, NHTSA has determined that these results should have been generally expected based on a comparison of the oncoming glare limits and the longstanding Table XIX lower beam photometry requirements that regulate lower beam design. The oncoming glare limits were derived from the Table XIX left-side maxima (700 cd at 1U, 1.5 L to L and 1,000 cd at 0.5 U, 1.5L to L).[134] On a right curve, however, the fixture enters the lower beam pattern from the right side and traces a trajectory across the beam pattern from right to left (See Figure 7). The Table XIX right-side maxima (1,400 cd at 1.5U, 1R to R and 2,700 cd at 0.5U, 1R to 3R) are higher than the left-side maxima. In addition, unlike on the left side, the right-side photometry is not limited at 0.5U extending indefinitely horizontally. The left-side photometry is limited by the line 0.5U, 1.5L–L. The right-side photometry is limited by 0.5U, 1R–3R. While right-side photometry is ultimately limited at 1.5U, 1R–R, this line provides considerably more flexibility to provide light down the right side. Consequently, the Table XIX right-side maxima, on which current lower beams are based, permit intensities that exceed the oncoming glare limits, which were derived from the left-side maxima. Indeed, data show that current compliant lower beams exceed the derived glare limits on the right side at distances greater than 50 m. More specifically, based on the IIHS data presented by SAE, exceedances at about 3R and greater (corresponding to measurement distances of greater than about 50 m) are found, and many fewer glare limits exceedances to the left of 3 degrees right. Accordingly, the final rule revises this scenario so that the measurement range does not start until 50 m.

The agency notes that even with this modification, the glare limits in this final rule are still (as Stanley suggested) more stringent than currently allowed by the Table XIX right-side maxima from 1R to 3R.[135] However, this level of stringency is reasonable and provides a manageable design range. The lower beam photometry was designed to provide a generic beam to prevent glare regardless of the actual road and traffic conditions; it was not customized to provide glare protection to oncoming vehicles on a right curve. Because most situations in which an oncoming vehicle can be glared will occur with the oncoming vehicle to the left, the existing Table XIX lower beam photometry requirements require shading the left side and permit more light on the right side. However, the adaptive driving beam is not, and need not be, an all-purpose beam like a conventional lower beam. It is clear in the photometry tables that the appropriate glare limits for oncoming situations are the left-side maxima in Table XIX, on which the oncoming glare limits are based. These limits should, to the extent possible, apply to oncoming glare, including from the right-side. In any case, the agency believes that current lower beams would generally comply with the glare limits as applied in this scenario with the revised measurement distance range.

Indeed, both IIHS and NHTSA lower beam test data demonstrate that compliant lower beams, including high-rated IIHS beams, would generally be within the glare limits in this revised scenario. The IIHS data submitted by SAE shows that for distances between 15 m and 60 m, most of the lower beams were within the glare limits. Vehicles 1 and 7 seem to take the most advantage of the flexibilities provided toward the right side beyond 3 degrees in performing well in the IIHS right-curve test, and the lower beams on both vehicles were below the glare limits within 50 m. This demonstrates that a vehicle can both perform well on the IIHS right-curve distance rating and stay within the glare limits in this final rule's revised scenario.

NHTSA's testing also showed that current lower beams can pass this revised scenario. NHTSA tested two lower beams on a 210 m right curve, and both were within the glare limits at all distances within the specified measurement range. See Figure 23. The agency also saw similar results in our 2015 testing, which (among other things) evaluated lower beam illuminance on a 231 m right curve, and found that the lower beams exceeded the glare limits at 60 meters and greater, and was within the glare limits from 15 m to 60 m.[136]

[132] *See www.iihs.org/ratings/vehicle/toyota/camry-4-door-sedan/2020#headlights* (*last accessed* Dec. 18, 2020).

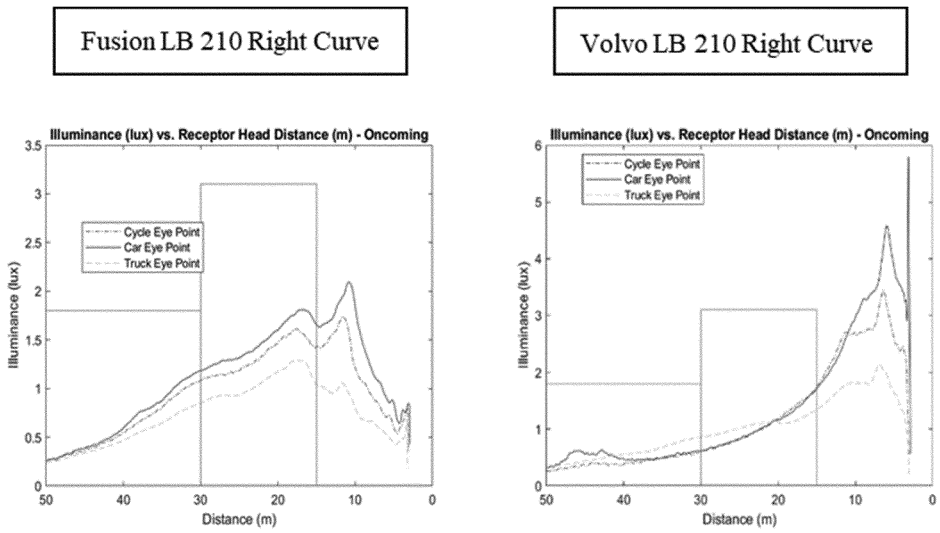
[133] Corresponding to approximately 0.3D, 7R.

[134] Feasibility Study, p. 23.

[135] In Appendix A, we provide additional data and discussion on this.

[136] 2015 ADB Test Report, p. 193 (Fig. 85, Mercedes Trial 82 [lower beam]); p. 63 (Mercedes test vehicle modified by manufacturer to produce a FMVSS No. 108 compliant beam pattern).

Figure 23.



NHTSA notes that these data from contemporary lower beams differ somewhat from data on 1990s-era lower beams presented in the Feasibility Study. Specifically, Figure 9 in the Feasibility Study, which displayed a lower beam pattern typical of MY 1997 vehicles, seems to indicate that lower beams would likely be within the oncoming glare limits on the right side of the beam pattern illustrated in Figure 9. However, as Auto Innovators pointed out in its comment, lower beam design has changed since 1997. NHTSA believes it is reasonable to assume that at least some manufacturers are supplying more light at or just above the horizon for horizontal angles greater than 3 degrees right (without violating the 1,400 cd maximum) than in the past in order to perform well on the IIHS tests.[137] Lower beams that are designed to perform well on the IIHS test may thus be more likely to fail the glare limits in the ADB track test, even if the system is projecting an area of reduced intensity onto the fixture. This is compounded by the effect of vehicle pitch: With higher intensity light at larger vertical angles of the beam pattern, slight changes in pitch can push the higher intensity portion of the lower beam upwards and cause the oncoming glare limit to be exceeded. Further, at angles beyond 3 degrees right, the glare limits begin to veer dramatically from the flexibilities provided in the current Table XIX requirements (specifically, the right-side maxima). Accordingly, the oncoming glare limits, in conjunction with the revised measurement distances, are consistent with the angular limits of the current lower beam photometry. The track test continues the longstanding flexibilities for lower beam design on the right side beyond 3 degrees.

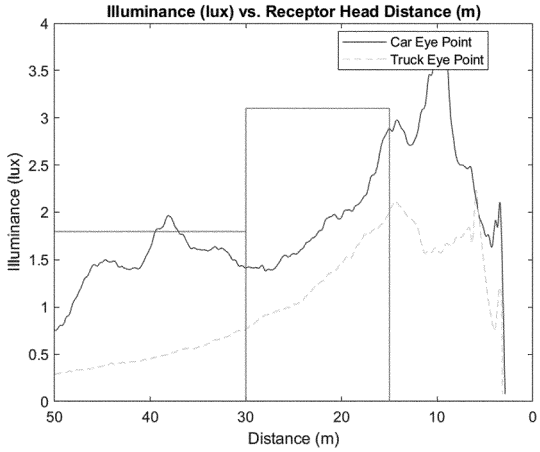
The modified specifications for this scenario are also within the capabilities of typical ADB systems. Because illuminance is evaluated starting at 50 m from the fixture, there is more than enough time for an ADB system to detect and react to the fixture (more than 7 seconds on a 230 m radius curve).

The agency's ADB test data bear this out. When testing an ADB system on a 210-meter radius right curve, the illuminance was within the glare limits except for some limited exceedances, which can readily be addressed by minor changes in the design of the area of reduced intensity. See Figure 24. Similarly, the 2015 testing with actual stimulus vehicles showed that even an older ADB system was able to pass a right curve (231 m) oncoming scenario at 15 m to 50 m.[138]

[137] Comment from Alliance for Automotive Innovation (July 31, 2020) (NHTSA–2018–0090–0219), p. 11 (Fig. 5, Low-Beam Headlight Intensity Pattern from IIHS Headlight Rating.

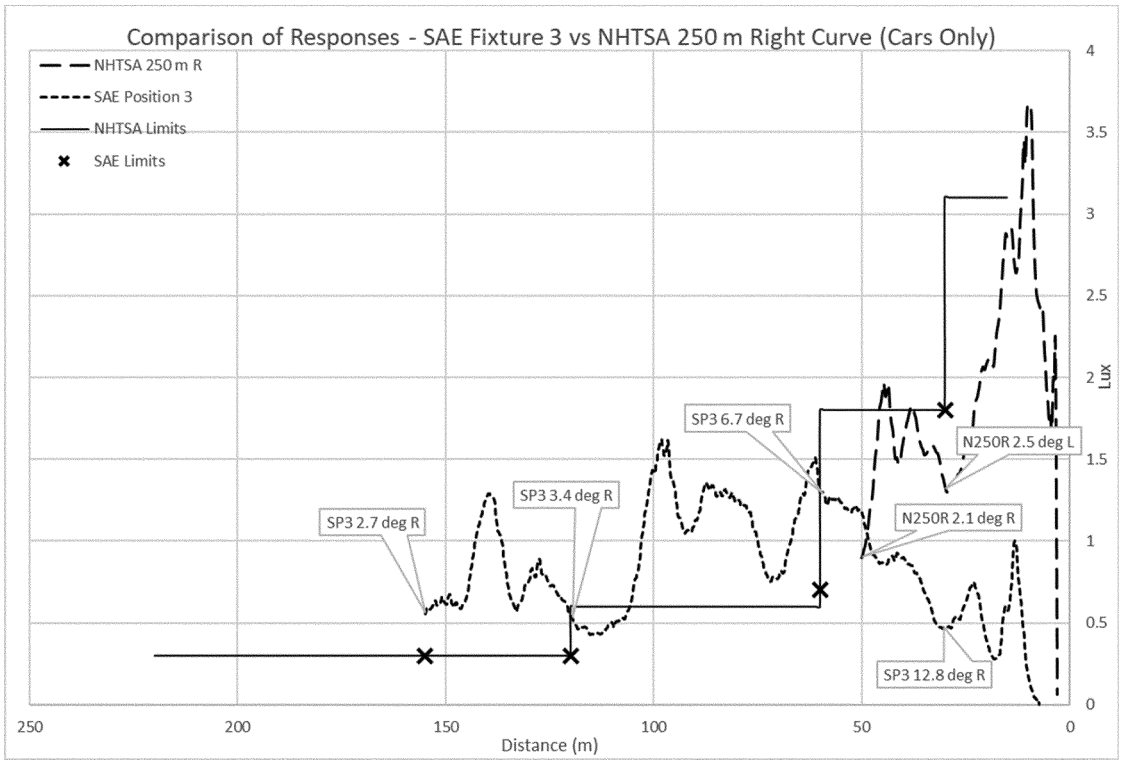
[138] 2015 ADB Test Report, p. 193 (Fig. 85, Mercedes Trial 83 [ADB]); p. 63 (Mercedes test vehicle modified by manufacturer to produce a FMVSS No. 108 compliant beam pattern).

Figure 24. Lexus ADB 210 Right



The ADB system NHTSA tested had more exceedances when tested to the most closely analogous SAE J3069 scenario (with the test fixture in Position 3) compared to NHTSA's test. See Figure 25. This is because at the measurement distances in this scenario, Fixture Position 3 is in the bright (right-side) portion of the beam pattern, while the fixture in NHTSA's test scenario is in the less-bright portion of the beam pattern (center-right to center-left).

Figure 25. SAE test fixture Position 3 (car)



NHTSA notes that this scenario does not evaluate the illuminance from the ADB system from 50 m–220 m, so it would not test whether the ADB system switched from an upper beam to an adaptive beam in this range. NHTSA believes this is acceptable because the left curve scenarios generally test the ability of the ADB system to react and it is reasonable to expect similar reactions on the left and right side. The right curve test simply confirms the right side is performing similarly by applying the oncoming glare limits to narrow angles on the right side and providing greater flexibility at broader angles on the right side of the vehicle.

f. Scenario 6: Oncoming Large Right Curve

The NPRM proposed regulating glare on right curves with a radius of 335 m to 396 m at 50–55 mph from distances of 15 m to 220 m.

Comments

As explained above regarding the medium right curve scenario, Stanley ran simulations for right curves with a radius of 366 m and commented that the oncoming glare limits were effectively more stringent than the current Table XIX photometry on the right side of the beam pattern. In addition, as noted earlier, commenters argued more generally that the proposed glare limits were so stringent that compliant lower beams would exceed them, and that there might not be sufficient time for the ADB system to react to the stimulus lighting.

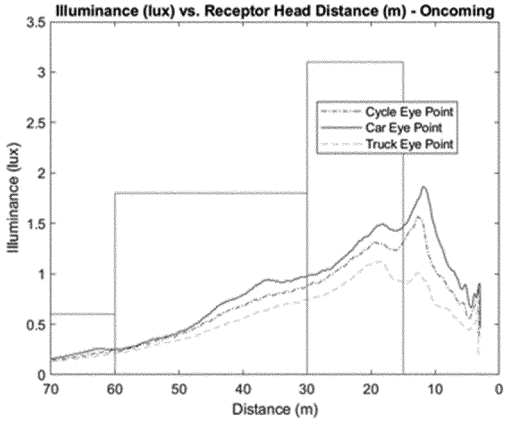
Agency Response

This final rule modifies the proposal, similar to the modifications for the medium right curve, in response to comments that current compliant lower beams might not comply with the NPRM's glare limits at all the proposed measurement distances. As explained earlier, this (in conjunction with the requirement that areas of reduced intensity meet the corresponding lower beam laboratory photometric requirements) means that an area of reduced intensity, up to and including a full lower beam, will meet the same level of safety (with respect to both visibility and glare prevention) as current lower beams certified to FMVSS No. 108. As NHTSA agrees with Stanley and other commenters that the proposed scenario permitted less glare than presently required of a lower beam on the right side of the beam pattern, NHTSA has narrowed this angle not to go beyond 3 degrees right, to provide flexibility at larger angles. The final rule therefore specifies testing on a right curve with a radius of 335—400 m at distances of 15 m to 70 m, at the proposed speeds of 50–55 mph.

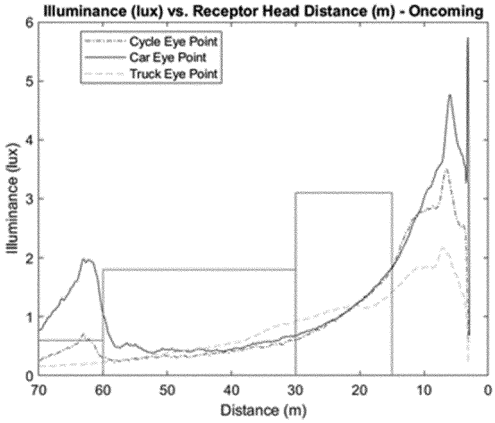
NHTSA believes that a lower beam that is FMVSS No. 108-compliant and performs well on the IIHS test would generally be able to comply with the glare limits in this scenario. The reasons for this are analogous to the reasons given earlier for revising the measurement distance in the medium right curve scenario. None of the IIHS data submitted by SAE was for a right curve of this diameter. NHTSA tested two lower beams on this scenario. See Figure 26. The Fusion lower beam was within the glare limits at all specified distances, while the Volvo lower beam exceeded the glare limits at distances from 60 m—70 m. This is likely because, as explained earlier, the Table XIX photometry requirements and the IIHS test have prompted some manufacturers to provide greater light on the right side. NHTSA believes such systems can comply with the requirements with minor modifications. This is also consistent with what Stanley points out in its comment.

Figure 26. Lower beams on

Fusion LB 335 Right

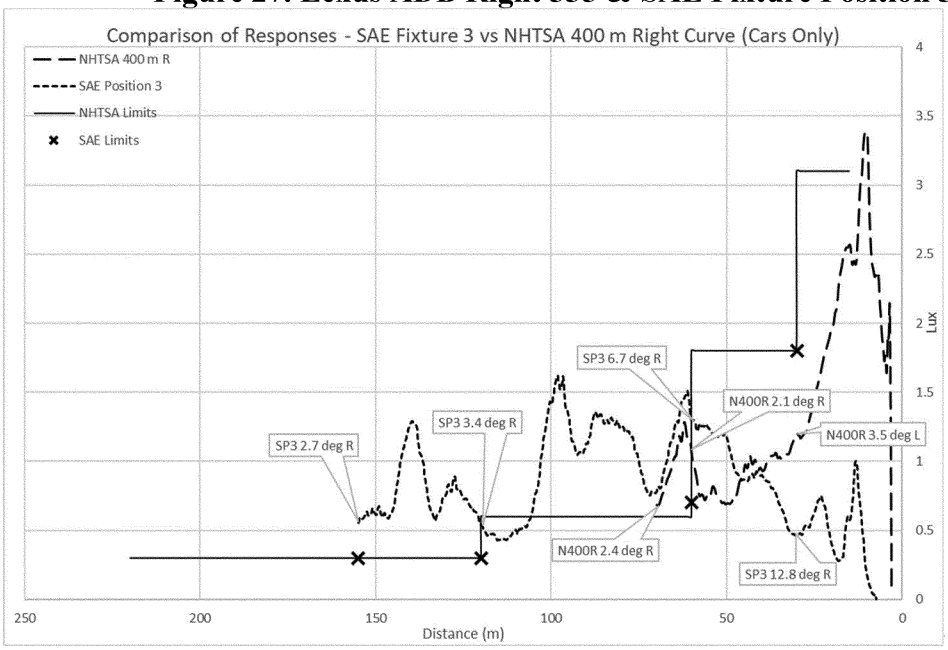


Volvo LB 335 Right



The agency also believes that the finalized requirements are within the capabilities of existing ADB systems, for reasons analogous to those provided for the medium right curve scenario above. The ADB NHTSA system tested was within the glare limits in this scenario except at distances greater than 60 m. See Figure 27. This is similar to the results for the Volvo lower beam and, we believe, can be addressed with minor system modifications. Agency test data also confirm that the most closely analogous SAE test scenario (Fixture Position 3) does not accurately replicate an actual right curve; the measured illuminance on this scenario was significantly higher than in the analogous SAE scenario. Thus, the data indicate again that the two test methods can yield different results, and that the actual curve test is preferable because it would be more evaluative of real-world performance.

Figure 27. Lexus ADB Right 335 & SAE Fixture Position 3



g. Scenario 7: Preceding Straight

The NPRM proposed testing for preceding glare in a variety of vehicle maneuvers, on both straight and curved roadway. It proposed scenarios in which a stimulus vehicle preceded the test vehicle in the same lane and in which the test vehicle overtakes the stimulus vehicle, and vice versa. We proposed evaluating glare out to 119.9 m.

Comments

SAE commented, with respect to NHTSA's statement in the NPRM that the ECE ADB regulations require ADB cameras to be capable of sensing vehicles out to 400 m, that this only applies to opposing vehicles (headlamps), not preceding vehicles (rear lamps). For preceding vehicles (*i.e.,* tail/rear position lamps), the ECE requirement is greater than 100 m. SAE also noted that ECE minimum photometric requirements for a rear position lamp is 4 cd versus the 2 cd minimum under FMVSS No. 108 for a taillamp. Thus, SAE stated, the ECE requires a shorter detection distance (100 m in the ECE versus 120 m in the NPRM) for a lamp whose absolute minimum intensity is two times that required by FMVSS No. 108.

Auto Innovators found that there were very few test failures in this scenario (5 failures out of 109 valid test runs in its testing) and therefore suggested eliminating it because it would provide no additional benefit.

Agency Response

The final rule scales back the proposal with respect to evaluating preceding glare. The final rule does not include any passing or same-lane scenarios because it utilizes stationary fixtures. The final rule provides only for testing preceding glare with the fixture in the left adjacent lane, on both a straight path (this ''preceding straight'' test scenario) and on a left curve path (Scenario 8).

The final rule also shortens the measurement distance to 100 m. As SAE suggested in its comment, the detection distance for ADB systems differs for oncoming versus preceding traffic. It is much more difficult for an ADB system to detect taillamps than headlamps, and the difficulty increases with greater forward distances. This is mainly due, as SAE notes, to the fact that headlamps are much brighter than taillamps. The NPRM stated that it is reasonable to expect ADB systems to detect oncoming vehicles at 220 m but did not mean to imply that this also applies to preceding vehicles. The final rule harmonizes with the ECE requirements in this respect.

Agency test data indicate that current lower beams can comply with this revised scenario. NHTSA tested two vehicle lower beams, both of which performed well, with considerable margin. See Figures 28 and 29 below.

Figure 28: Fusion 61 mph:

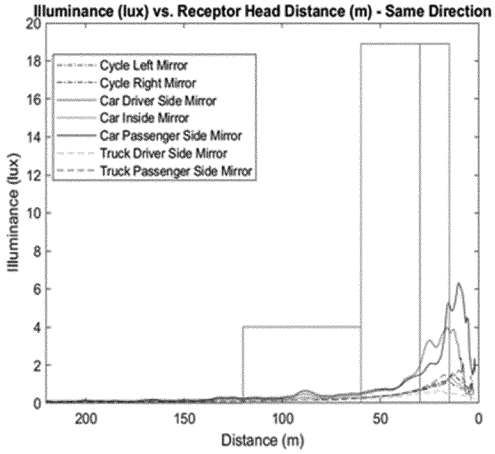
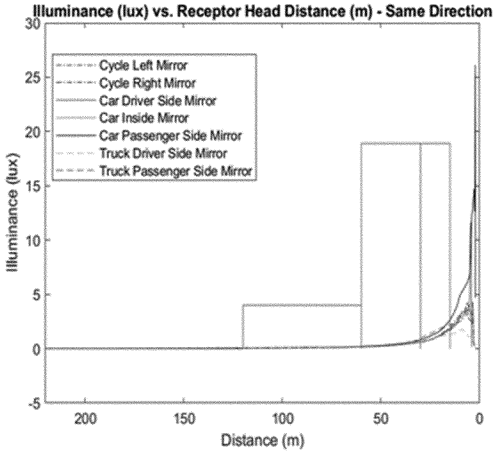


Figure 29: Volvo 65 mph



NHTSA's analysis also indicates that ADB systems can reasonably be expected to comply with this scenario. As explained earlier for the oncoming straight scenario, the preceding vehicle fixture—which is in the same location as it is for the oncoming straight scenario—is always within the ADB system's field of view, so that an ADB system will have more than sufficient time to react to and shade the fixture. NHTSA's test data bear this out. The Lexus ADB system performed well with considerable margins in this scenario with all fixtures (passenger car, truck, motorcycle). See Figure 30. On the SAE test run with the preceding fixtures in Position 2 (the closest analog to this final rule scenario), the ADB system passed with the car/truck fixtures, although the margins were lower. See Figure 31.

Figure 30: Lexus straight run at 69 mph, Same Direction

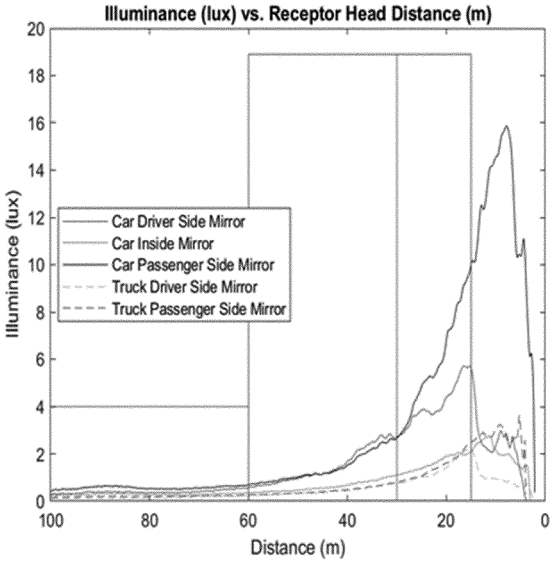
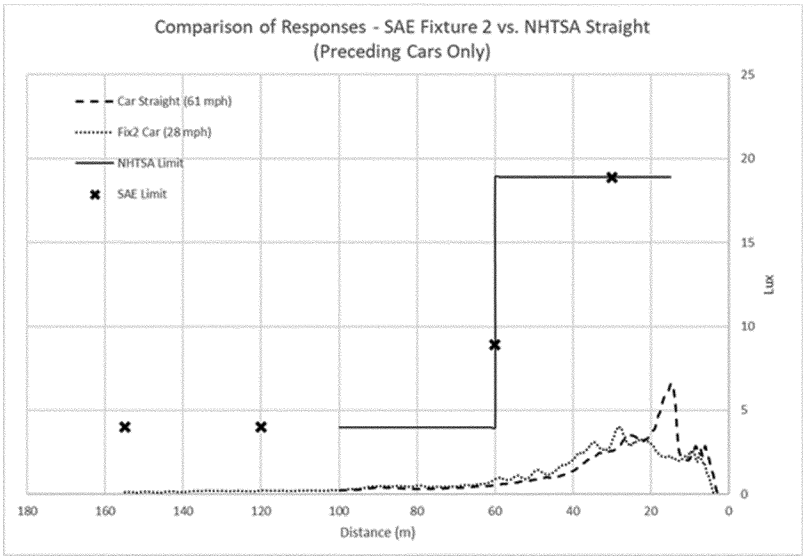


Figure 31 – SAE test scenarios



h. Scenario 8: Preceding Medium Left Curve

The NPRM included scenarios for testing preceding glare on short, medium, and large right and left curves, in same-lane and passing scenarios. It proposed evaluating glare from 15 m or 30 m (depending on the scenario) out to 119.9 m. The agency did not receive any comments specifically on the preceding curve scenarios.

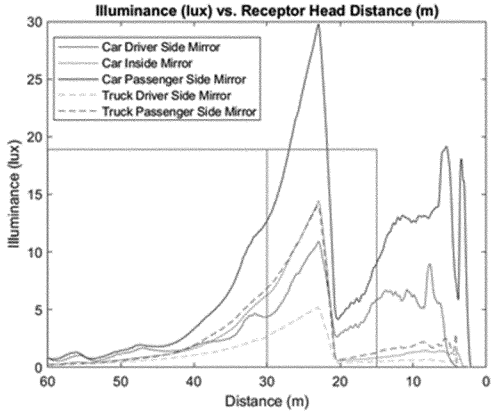
The final rule retains only one preceding curve scenario of those proposed. This scenario evaluates preceding glare on a medium left curve (with a radius from 210 m to 250 m) from 15 m to 100 m with the fixture in the left adjacent lane.

After considering the comments questioning the number and complexity of the proposed test scenarios, NHTSA considered including only a preceding vehicle straight path scenario, hypothesizing that it, in addition to the full set of oncoming scenarios, would adequately probe ADB system performance. NHTSA's testing, however, showed that ADB systems encountered some difficulties preventing glare to preceding vehicles on curves. The 2015 ADB Test Report concluded that left curve same-direction maneuver scenarios in which the stimulus vehicle was stationary were associated with high measured illuminance values.[139] NHTSA's recent testing showed that the ADB system, while performing adequately on oncoming left curve and preceding straight scenarios, had trouble with a preceding left curve scenario for short and medium curves, but handled the large curve well. See Figure 32.

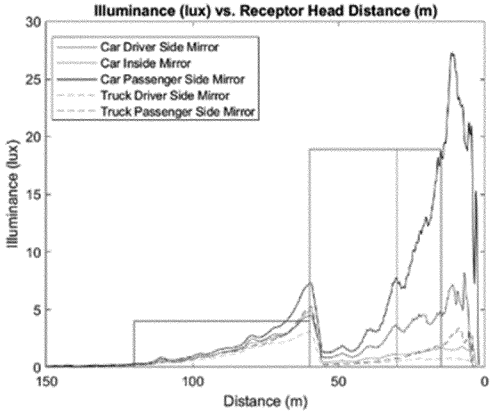
[139] 2015 ADB Test Report, p. 173. *See also* pp. 114–123.

Figure 32. Preceding glare on left curves

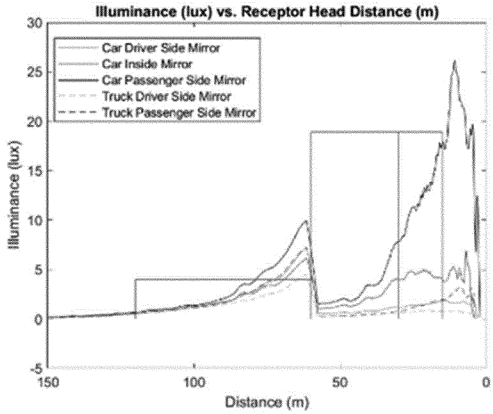
Lexus ADB – Preceding, 85 m left curve at 26 mph



Lexus ADB – Preceding, 210 m left curve at 41 mph:



Lexus ADB – Preceding 250 m left curve at 44 mph.



Lexus ADB – Preceding 400 m left curve at 51 mph.

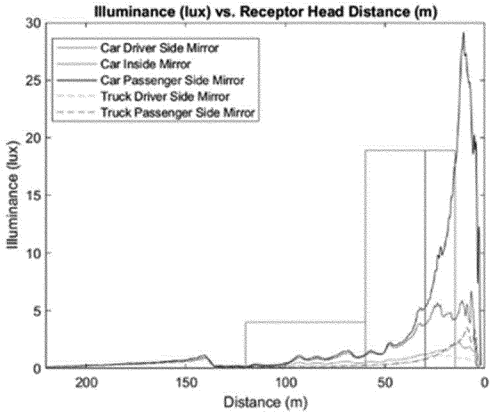
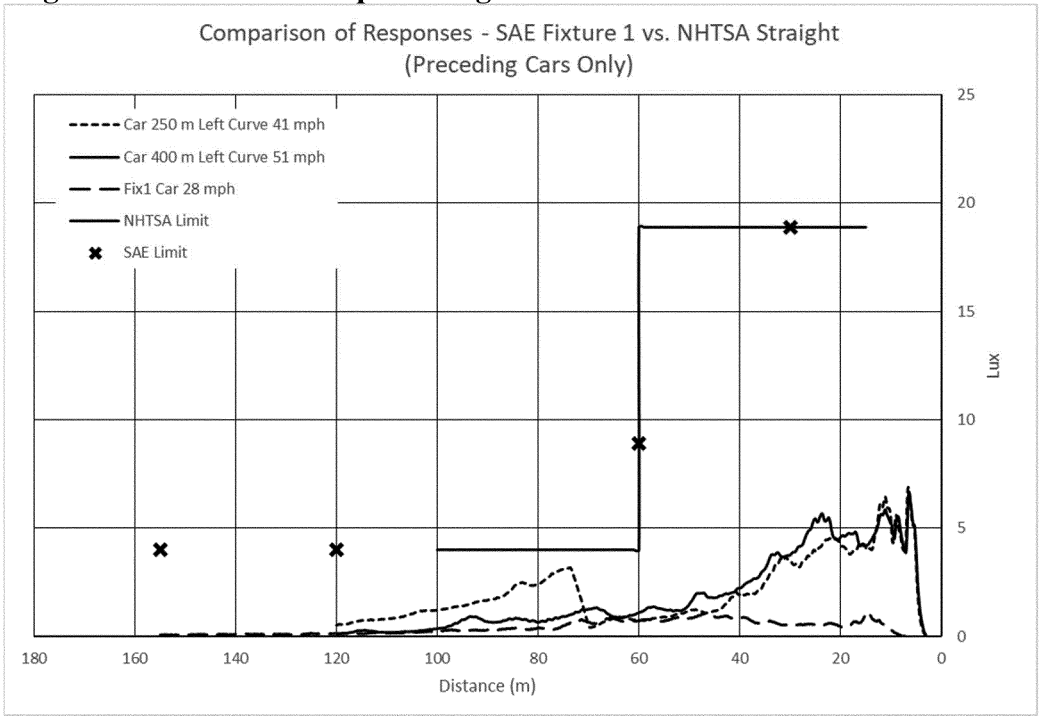


Figure 33. SAE test with preceding car fixture in Fixture Position 1



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Accordingly, the final rule retains a preceding left curve scenario to help ensure that ADB systems respond appropriately when encountering preceding vehicles on curved roadways. NHTSA decided that one curve test would suffice and has opted for the medium curve. The ADB system we tested performed well on the large curve, and the short curvature would be a difficult test for the manufacturers to meet. The final rule does not add a right curve scenario for preceding vehicles because the 2015 study showed that ADB systems generally performed well on same-direction right curve maneuvers.[140] Further, because the final rule truncates the measurement distances on right curves, preceding tests for right curves would not test the system in any significant ways that are not already covered by the other scenarios.[141]

The results from the SAE test fixture position most analogous to this final rule scenario (with the SAE fixture in Position 1) show that the ADB system passed the test with the car/truck fixture with wide margins. See Figure 33. Again, this contrasts with the results from the final rule test scenario and suggests that the SAE test does not sufficiently replicate a preceding situation on an actual curve.

i. Decision Not To Include Oncoming Short Right Curve Scenario

The NPRM proposed evaluating illuminance on right curves with a radius of 98 m to 116 m at distances of 15 m to 220 m.

Comments

SAE and Stanley commented—parallel to their arguments for the medium right curve—that contemporary lower beams would likely not comply with this scenario. SAE provided a graph of illuminance data for IIHS ''Good''-rated lower beams from about 0 m to 125 m on a 150 m radius right curve. SAE stated that these data show that many of those lower beams would not comply with the proposed glare limits at distances greater than 30 m. Other commenters stated more generally that the proposed glare limits were so stringent that even currently-compliant lower beams would exceed them. Similarly, Stanley ran simulations for a right curve with a radius of 107 m and asserted that the glare limits were more stringent than the right-side intensities currently permitted by the standard.

As noted above under the small left curve scenario, several commenters stated that curves of this size would require a camera field of view beyond the capabilities of existing systems, and/or would not allow a sufficient time for an ADB system to detect and react to the stimulus.

SAE also commented that upper beams at greater than 15 degrees left or right are not as bright as lower beams straight ahead, and at an angle of 40 degrees the light toward a stimulus vehicle driver is low, further suggesting that requiring a camera field of view beyond 25 degrees is unnecessary.

Agency Response

The final rule does not include a short right curve scenario because NHTSA was persuaded by the comments.

The reasons for this decision are similar to the reasons for modifying the measurement distances for the medium and large right curve scenarios. As explained earlier, NHTSA concluded that contemporary lower beams—especially beams that score well on the IIHS test—would likely not comply with the oncoming glare limits at distances corresponding to horizontal angles greater than 3 degrees—that is, on a 100 m right curve, distances greater than 30 m (the distance at which the fixture would cross 3 degrees). This is consistent with the IIHS data submitted by SAE, which shows that none of the lower beams tested were within the oncoming glare limits between 60 and approximately 120 m, and most of the lower beams tested were not within the oncoming glare limits from 30 m to 60

[140] 2015 ADB Test Report, p. 173.

[141] For example, the Lexus has a late reaction (at 70 m) on the preceding medium left curve. If the recognition system is essentially symmetrical (*i.e.,* the same for a right curve), the same late recognition (70 m) on a preceding right curve would not result in a failure, because the measurement distance for a right curve is truncated to 50 m (Scenario 5). As is the case for the left curve, the Lexus was under the right curve limits at distances less than 50 m.

m. (From 15 m to 30 m, almost all the lower beams tested by IIHS were within the glare limits.) As such, the agency has confidence that including a small radius right curve scenario would have no positive impact on safety relative to that provided by current lower beams in this situation.

Because, as explained above, the final rule specifies right curve scenarios only for measurement distances corresponding to horizontal angles to the left of 3R, this would leave only about 15 m of track length (and 1 second of test time) for this scenario. NHTSA concluded it was not useful to include such a short-duration scenario in the final rule.

9. Other Test Parameters and Conditions

a. Radius of Curvature

NHTSA proposed testing using a curved path scenario (both left and right curves) with a variety of radii of curvature. The NPRM proposed testing on a ''small'' curve with radii of curvature from 98 m—116 m (320–380 ft); a ''medium'' curve with radii of curvature of 223 m–241 m (730–790 ft); and a ''large'' curve, 335 m–396 m (1100–1300 ft). The NPRM proposed that the curve on which testing is conducted be of a constant radius within the range listed in the test matrix.

Comments

Manufacturers requested clarification or modification of the specifications and procedures related to the radius of curvature.

The Alliance, Ford, and Toyota commented on measuring the radius of curvature. Ford requested clarification on how to measure the radius of curvature and all three commenters recommended following the IIHS protocol and measuring the radius of curvature from the center of the test vehicle's travel lane.

Toyota suggested the final rule not specify a constant radius because it is not practical and is rarely the case in real-world situations.

Honda, Toyota, and Auto Innovators requested clarification of the direction of curvature (left or right).

OICA, SAE, SMMT, and Auto Innovators commented that the proposed road geometries do not exist at the proving grounds of many vehicle manufacturers. Auto Innovators commented that its testing contractor found that modifications to curvature radii were necessary to accommodate performance of the specified test scenarios at its facility, and that only the short-radius curve was within the NPRM specification.

Agency Response

NHTSA has made a variety of changes in the final rule in response to these comments. With respect to measuring the radius of curvature, the final rule adopts regulatory text to specify that the curve is of a constant radius, as measured to the centerline of the path on which the test vehicle travels, within the range specified in the test matrix. In its latest testing, NHTSA used an inertial navigation system to follow a pre-programmed path for the centerline of the vehicle to follow. This was executed using a steering controller that followed the predefined path.

When conducting its compliance testing, the agency may choose any radius within the range listed in the test matrix. The constant-radius specification is intended to indicate that the agency does not intend to test on compound curves (*i.e.,* a curve with a non-constant radius of curvature). Considering that the manufacturer must certify that the vehicle will perform throughout the range of radii of curvature specified in the test matrix, NHTSA does not expect dramatic differences in results if the radius is not perfectly constant but contains minor variations throughout the run. The final rule also retains ranges for the radii of curvature, as opposed to a single radius of curvature with a relatively narrow tolerance. NHTSA believes the system should be able to function over at least these range of radii because they are representative of real-world roadway geometry.

NHTSA agrees with Honda and Toyota about clearly specifying the direction of curvature and has done so in the regulatory text.

With respect to the comment that the specified curves are not available at testing facilities, NHTSA was able to test on the curves specified in the final rule at the Transportation Research Center (TRC) Vehicle Dynamics Area (VDA). This test facility is publicly available to manufacturers.

The final rule slightly modifies the specifications for the radii of curvature for all curves. NHTSA converted the center of the proposed range units from feet to meters and rounded the meter units.

b. Test Vehicle Speed and Acceleration

The NPRM proposed, for each test scenario, a range of test vehicle speeds that NHTSA could select. The values proposed for speed, radius of curvature, and superelevation were consistent with a standard formula used in road design specifying the relationship between these parameters. The formula, referred to as the simplified curve formula, is

$$0.01e + f = \frac{V}{15R}^2,$$

where f is the coefficient of friction, V is the vehicle speed, R is the radius of curvature, and e is superelevation.[142] The speeds ranged from a high of 70 mph for the straight scenario to 25 mph for the short-radius curve scenarios.

The NPRM proposed that for each test run, a speed conforming to the ADB test matrix would be selected and that the test vehicle would achieve this speed ± 0.45 m/s (1 mph) prior to reaching the data measurement distance and maintain this speed with ''no sudden acceleration or braking.''

Comments

SAE, Toyota, and Honda recommended that, to simplify the test and reduce variability, the final rule specify a specific vehicle speed and tolerance for each scenario. Auto Innovators recommended that the maximum test speed be reduced from 70 mph to 55 mph because camera detection does not depend on vehicle speed; the majority of fatal nighttime crashes on curves occur at speeds of 55 mph or less; and certain vehicles (such as large trucks) would have difficulty reaching the specified test speeds given the lengths of courses available at test facilities. Toyota suggested providing a more specific specification for acceleration.

Agency Response

The final rule retains the speed ranges and tolerances proposed for each scenario. The range of speeds reflects the real world (where different drivers may take the same curve at different speeds) and provides testing flexibility.

[142] *See* A Policy on Geometric Design of Highways and Streets. American Association of State Highway and Transportation Officials. Washington, DC (2011) (AASHTO Green Book), pp. 3–19 to 3–20.

The speeds set out in the final rule are generally higher than specified in SAE J3069, which states that ''[t]he speed of the vehicle for the full length of the 155 m test shall be above the ADB activation threshold of the vehicle as specified by the manufacturer.'' [143] NHTSA believes that testing at speeds only marginally higher than the activation speed would not be representative of real-world driving, especially on the types of roads and situations (*e.g.,* outdriving lower beam) in which ADB is most useful. The ADB systems NHTSA tested had activation speeds ranging from 19 to 43 mph.[144] Safety concerns regarding glare, like many safety concerns, are also magnified at higher speeds.

NHTSA disagrees with the suggestion that test speed does not impact ADB system performance, as the higher the test speed, the quicker the system must identify and shade the fixture. The proposal did not specify test speeds greater than 55 mph on curves; speeds above this were only proposed for straight-path scenarios. Regarding the concern that vehicles such as large trucks may have difficulty attaining test speeds in the distances available at track test facilities, the final rule specifies test fixtures and not stimulus vehicles, which should facilitate testing at the higher speeds. Further, the agency was able to achieve the maximum test speed of 70 mph on two different sections of the TRC facility for the straight scenario, using a class 8 truck tractor in the loaded and unloaded condition on the skid pad and the vehicle dynamics area (this is the surface that was used for all of the research testing). While complete lamp testing was not conducted using the class 8 truck tractor, the pitch and speed parameters were recorded along the path to demonstrate that a valid test was possible. Given the superiority of full-vehicle testing of ADB, the difficulties that a few vehicles may have in executing the test procedure do not appear insurmountable for heavy vehicles.

Regarding Toyota's comment on the acceleration criteria, the proposal did address acceleration beyond the specification that ''no sudden acceleration or braking shall occur'' in that it also specified a tolerance of +/− 0.45 m/s (1 mph) for the nominal test speed. This tolerance is smaller than that used in the IIHS test procedure (3 km/h (.83 m/s)). In NHTSA's testing, the test driver was able to consistently maintain the speed within this tolerance. In addition, the final rule includes a vehicle pitch allowance that constrains acceleration in that if acceleration causes changes in vehicle pitch exceeding 0.3 degrees compared to the average pitch, then the measured illuminance at those points will not be considered in determining compliance.

c. Headlamp Aim

The proposed test procedures specified several aspects of test vehicle preparation. This included that the headlamps would be aimed and the ADB system adjusted according to the manufacturer's instructions.

FMVSS No. 108 requires that when a headlamp is installed on a motor vehicle, it must be aimable.[145] The standard specifies compliance options for the aiming system. The principal options are vehicle headlamp aiming devices (VHAD) and visual/optical aiming devices (VOA).[146]

A VHAD is an item of equipment installed on the vehicle and headlamp which is used for aiming the headlamp mechanically, such as with a bubble vial on the headlamp housing which has a closely specified geometric relationship to the headlamp beam's vertical location. A similar mechanical reference marking system is used for correct horizontal aim, essentially aligning the optical axis of the headlamp housing or reflector to the vehicle's longitudinal axis.

VOA involves either projecting the beam onto a vertical surface and then adjusting the headlamp to an appropriate position as determined by an observer (visual aim), or projecting the beam into an optical device that is placed in front of the headlamp and then adjusting the headlamp until the beam conforms to the appropriate parameters (optical aim). VOA is used on most, if not all, vehicles currently sold in the U.S. The standard requires a relatively sharp horizontal cutoff in the lower beam pattern in order to aim the headlamps vertically. The standard does not permit horizontal aiming on VOA headlamps unless the headlamp is equipped with a horizontal VHAD.

Comments

IIHS expressed concern that the NPRM allowed vehicle manufacturers to provide headlamp re-aiming procedures and ADB adjustments prior to testing, because for the systems to be effective in real-world driving, they need to function without adjustment when the consumer purchases the vehicle. IIHS explained that its headlighting system evaluations are conducted without changing the factory aim of the headlamps. They found that there is often a wide range of aim values between manufacturers, between some vehicles of the same make and model, and even between the left and right headlamp of the same vehicle, indicating that ADB effectiveness will be reduced if there is no incentive in the regulation for precise aiming at the factory. IIHS noted that this is even more important for ADB than for traditional headlighting systems since both the headlamps and the camera system require accurate alignment. IIHS further stated that just as NHTSA would not allow manufacturers to modify an air bag deployment algorithm prior to conducting FMVSS No. 208 compliance crash tests, the agency should not allow the ADB system to be modified to a condition that may not exist on any other production vehicle. IIHS provided data on factory aim variation for seven new vehicle models with VOR headlamps showing that most had aim values that would have a substantial effect on the measured visibility distances in the IIHS evaluation. IIHS stated that this indicates that conducting headlamp evaluations or compliance testing with re-aimed lamps is likely to reduce the real-world relevance of the tests.

Conversely, several commenters (Valeo, the Alliance, Volkswagen, SAE, Koito, Global, Honda, Auto Innovators, and Ford) requested that the final rule allow for horizontal aim adjustment on VOA ADB headlamps without equipping them with a horizontal VHAD (as the standard currently requires). The commenters highlighted the importance of horizontal aiming for ADB systems and requested that the final rule allow horizontal aim adjustment on VOA headlamps used in conjunction with an ADB system. They stated that in order to maximize the visibility benefits of ADB, the area of reduced intensity must be minimized, which can only be accomplished using both horizontal and vertical aiming. They commented that horizontal adjustment of the beam is critical in placing the area of reduced intensity accurately over the oncoming or preceding vehicles. If a horizontal aim access allowance were not incorporated into the final rule, automakers would be required to compensate for the expected horizontal vehicle variation into the size of the area of reduced intensity, resulting in greatly increasing this area, and lessening the additional light.

The commenters noted that the standard prohibits horizontal aim on a

[143] 5.5.6.1.

[144] 2015 ADB Test Report, p. 20.

[145] S10.18.

[146] The standard specifies a third compliance option (mechanical aim), which involves an externally-applied mechanical device. This method is no longer in use and is not at issue in this rulemaking.

VOA headlamp unless a VHAD is provided, and stated that VHADs are unreliable, ineffective, lack the accuracy necessary for use with ADB systems, and are essentially obsolete. SAE suggested that NHTSA modify the current regulatory text in S10.18 and S14.2.5 to allow headlamps with adaptive driving beams to be adjusted according to the manufacturer's instructions.[147] Auto Innovators commented that the method to horizontally aim ADB headlamps varies depending on the specific execution of the ADB system. Each involves an ADB-specific aim calibration mode to be activated either by a dealer or consumer when the vehicle is parked. This mode illuminates a horizontal aim feature utilizing one or more of the ADB-illuminated elements which have a sufficient vertical gradient that can be used for horizontal aim, just as one does today with vertical aim. The dealer or consumer would use this vertical gradient to properly calibrate the horizontal aim following instructions specified in the service manual or owner's manual.

Several of these commenters pointed out that the ECE and Canadian requirements provide for horizontal aim with VOA headlamps and that effectively requiring horizontal VHADs would drive hardware disharmonization. Ford pointed out that SAE J3069 recognized the necessity of horizontal aiming for ADB systems, and that Canada, in adopting SAE J3069, specifically permitted horizontal aim.

ALNA suggested applying tolerances for aiming the headlamps.

Agency Response

The final rule follows the proposal and specifies that the headlamps will be aimed and the ADB system adjusted according to the manufacturer's instructions. In addition, the final rule provides that the test vehicle will be loaded within +/− 5 kg of the total vehicle weight during track testing prior to aiming the ADB headlamps. This is intended to indicate that NHTSA will not change the loading of the vehicle by more than 5 kg compared to what it is when the headlamps are aimed. This means that NHTSA will not aim the headlamps when the vehicle is at a lower weight compared to when the vehicle is fully instrumented and occupied by a test driver (which changes the pitch of the vehicle, and thus, the aim of the headlamps).

NHTSA disagrees with IIHS and believes that manufacturers should be permitted to specify aiming procedures prior to the compliance tests. IIHS's suggestion is essentially that on-vehicle aim should be regulated. Even if this approach may have merit, it is outside the scope of this rulemaking, which extends the current requirements to ADB systems. The proposed specification is also consistent with the required laboratory testing, which involves aiming the headlamp prior to testing. Conventional laboratory testing of headlamps has long permitted aiming them prior to testing. This contributes to the repeatability of the test and sets a consistent standard to which headlamps must perform. This is important because the laboratory photometric requirements are the basis for the current track-based test procedure limits; if we were to consider practical limits that included variations in aim introduced through the distribution chain, the limits that are finalized might not be appropriate. In addition, as IIHS notes, ADB systems rely on accurate alignment of the headlamps and camera systems. Aiming the headlamps prior to the compliance test limits aim variation and isolates ADB performance. This approach ensures that the ADB compliance test will be performed with a headlighting beam pattern that, as manufactured, at least meets a minimum level of performance. The end customer or dealer can then aim the headlamps to align the system appropriately.

The agency agrees that successful implementation of ADB using current technology requires the regulation to provide flexibility to permit headlamps to be aimed horizontally once installed on the vehicle to align the vehicle, camera, and headlamps. As explained below, while NHTSA agrees with the commenters that ADB systems should be exempt from several of the current requirements for horizontal VHADs, NHTSA does not agree that ADB-equipped VOA headlamps should be completely exempt from all the VHAD requirements.

FMVSS No. 108 does not permit VOA headlamps to be visually aimed with respect to horizontal aim. NHTSA explained the reason for this in the 1997 final rule that permitted VOA aim headlamps.[148] Because the lower beam of a headlamp designed to conform to Standard No. 108 does not have any visual cues for achieving correct horizontal aim when aimed visually or optically, and because it is not possible to add such visual features without damaging the beam pattern, horizontal aim should be either fixed and nonadjustable, or have a horizontal VHAD. The agency also noted that the negotiated rulemaking committee involved in that 1997 negotiated rulemaking ''considered features for horizontal visual/optical aiming but none were deemed sufficiently developed and designed to be usable.'' [149] Accordingly, that final rule did not permit any horizontal movement of VOA headlamps, with the lamp essentially being correctly aimed as installed, unless the headlamp was equipped with a horizontal VHAD. The horizontal VHAD was included as a compliance option (and required to be set to zero) as a means for manufacturers to meet European requirements for both a horizontal and vertical aim adjustment. For these reasons, in 1999 NHTSA denied a petition for rulemaking to allow VOA headlamps to have a horizontal adjuster system that does not have the required 2.5-degree horizontal adjustment range or a VHAD indicator.[150]

Although VHADs are not widely (if ever) used, NHTSA is not persuaded that a VHAD for horizontal aiming would not be feasible for ADB-equipped headlamps. The commenters did not present any information to show VHADs are necessarily incompatible with the aiming accuracy necessary for ADB systems. While VHAD devices used prior to the allowance of visual optical aiming in the U.S. may have been inaccurate, these limitations are not driven by the requirements placed on VHADs by the FMVSS.[151] The minimum requirements in FMVSS No. 108 for horizontal VHADs provide a floor below which accuracy cannot drop, but do not limit aiming accuracy.

For example, the requirements in S10.18.8.1.2 that the VHAD include references and scales relative to the longitudinal axis of the vehicle, including a ''0'' mark and an equal number of graduations from the ''0'' mark, limit neither precision nor accuracy. The horizontal VHAD need only be accurate enough to set at 0 in order to perform basic photometry testing in the lab. Other measurement cues (including more precise methods) may be used to more accurately aim the headlamps on the vehicle for the purposes of ADB functionality. The

[147] Ford noted that NHTSA has opined that horizontal aiming is permitted with VOA headlamps provided it is disabled or made inaccessible for consumers, but contended that this does not address the potential need for re-adjustment should the ADB system need to be aimed after sale to the consumer (for example, upon headlamp replacement due to vehicle damage).

[148] 62 FR 10710 (Mar. 10, 1997).

[149] *Id.,* p. 10715.

[150] 66 FR 42985 (Aug. 16, 2001) (denial of rulemaking petition from Federal-Mogul Lighting Products).

[151] *See* S10.18.8.

regulation does not restrict this but allows the flexibility to customize such methods to accommodate any unique features present in any beam.

Even if NHTSA were to agree with the commenters that VHADs were not optimal for ADB systems, the agency does not currently have, and the commenters did not provide, a workable alternative. For example, SAE's suggested amendments to S10.18 and S14.2.5 simply stated that ''if the headlamp is equipped with ADB, and has horizontal aim, it shall be adjusted according to the manufacturer's instructions.'' If the commenters sought allowance of horizontal VOA aim for ADB systems, they did not provide information on how this would work in practice. Unlike the lower beam pattern in Europe, where the lower beam pattern has a vertical cutoff component and uses VOA for horizontal aim, the U.S. lower beam pattern has no such required cutoff or other cues—meaning horizontal VOA in FMVSS No. 108 is not currently feasible.[152] If the beam pattern were to include cues that could be used to visually aim the headlamps horizontally, such a procedure could be workable. Such procedures, however, have not been developed for the United States market for visual/optical horizontal aim of the headlamps, and they would need to include, among other things, a cut-off requirement analogous to the current requirements for the horizontal cutoff for the lower beam.[153] In addition, such requirements would limit the flexibility of beam pattern design currently permitted by the standard. This could limit the potential for innovative safety solutions generally afforded by this final rule. On the other hand, if the commenters referred to non-VOA methods, they were not presented to the agency.

NHTSA agrees, however, that several of the requirements for horizontal VHADs (in S10.18.8.1.2.1–4) are not necessary for ADB systems. S10.18.8.1.2.1 requires that each graduation must represent a change in the horizontal position of the mechanical axis not greater than 0.38° (2 in at 25 ft) to provide for variations in aim at least 0.76° (4 in at 25 ft) to the left and right of the longitudinal axis of the vehicle, and must have an accuracy relative to the zero mark of less than 0.1°. As the commenters alluded to, this minimum accuracy of graduation is likely not adequate for aligning the camera and headlamps. NHTSA expects that a more accurate method will be utilized to align the lamps and the camera and does not expect this alignment procedure to be manually conducted by non-expert vehicle owners. Similarly, S10.18.8.1.2.2–3 pertain to the readability of those graduations. S10.18.8.1.2.4 specifies minimum horizontal indicator and aiming ranges. Those limits are not relevant to ADB aim because they are intended to align the lamp with the vehicle, whereas ADB systems require the alignment of the lamp with the camera. NHTSA expects that this alignment range will be determined by each manufacturer appropriate for their camera installation and body tolerances. Consequently, the final rule exempts ADB systems from these requirements.

With respect to harmonization, the agency recognizes that VHADs add some additional cost, but the option to use a horizontal VHAD was actually intended to facilitate harmonization by giving manufacturers a way to meet both the ECE requirements (which require both a horizontal and vertical aim adjustment) and the U.S. requirements (which require only vertical aimability). A VOA headlamp intended for sale in both the European and U.S. markets would likely have a vertical aiming screw and a horizontal VHAD, while one intended for use only in the U.S. market need only provide for vertical adjustment.[154] In practice, manufacturers wishing to sell essentially the same headlamp design in both markets, but not utilize a horizontal VHAD, would typically design a lamp with both a vertical and horizontal aiming screw, and lock out (or make inaccessible) the horizontal screw in the U.S.-market version.

d. Road Surface

The NPRM proposed several specifications related to the quality of the test track surface, including that the tests would be conducted on a dry, uniform, solid-paved surface; that the road surface have an International Roughness Index (IRI) measurement of less than 1.5 m/km; and that the test course surface be composed of concrete or asphalt. The proposal also included an allowance for momentary glare exceedances that might be related to, among other things, imperfections in the road surface. SAE J3069 specifies an identical IRI value and that the test course surface be uniform, straight, flat and represent a typical road surface.

Comments

Intertek commented that the IRI is not simple to measure quantitatively and that requiring a road surface quality of 1.5 m/km will impose unnecessary restrictions on the test track. The commenter recommend instead using the SAE J3069 value of 3 m/km.[155] Auto Innovators commented that, for its testing, longitudinal lane IRI measurements were within the NPRM specification, averaging near 0.475 m/km, but that atypical IRI measurements across transverse lanes (east/west) are unknown and may impact testing on curves.

ALNA commented that test ground conditions and variations should be reflected in the requirements and suggested applying tolerances in order to reflect variations such as ground unevenness. Toyota commented that the NPRM did not sufficiently define the test track conditions and that failure to do so would affect compliance test results.

Agency Response

The final rule deletes the IRI specification. The purpose of the IRI specification was to limit angular changes between the vehicle and the illuminance meters throughout the test run. This was anticipated to provide a boundary limit for which a vehicle manufacturer could certify performance of its vehicle. In other words, the ADB system was not expected to perform to the limits specified in the NPRM on a bumpy or wavy road. However, during NHTSA's most recent testing, it was found that a more direct approach—pitch adjustment—could be used to limit this orientation. IRI values are a general measurement of road roughness, but, in the context of the track test in this rule, are essentially a proxy for vehicle pitch: A test conducted on a test track surface with a low IRI will generally have less pitch variation than a test conducted on a surface with a high IRI. Directly measuring vehicle pitch eliminates the need for the IRI parameter.

NHTSA believes that directly accounting for vehicle pitch addresses Auto Innovators' concern that the transverse IRI may influence test results (by influencing vehicle pitch, which in turn influences test results) on curve scenarios. The area of the test facility that NHTSA used for its most recent

[152] The ECE horizontal aim test procedure is in R112 Annex 9. This procedure is not suitable for headlamps in the U.S. because it relies on features in the beam pattern, such as the kink, that are not required to be present in a lower beam pattern by FMVSS No. 108.

[153] *See* S10.18.9.1.

[154] 66 FR 42985, 42986 (Aug. 16, 2001).

[155] SAE J3069 JUN2016 states, in section 7.1, that it is recommended that the road have an IRI of less than 1.5 m/km, while the text accompanying Figure 5 states that the IRI should be less than 3. SAE J3069 MAR2021 corrects the text in Figure 5 to state 1.5.

testing had an IRI of 1.46 m/km in the EW direction and an IRI of 1.61 m/km in the NS direction. In conducting its testing, however, NHTSA nested the straight, right, and left curves of each radius on the TRC VDA large-area test facility. As such, those IRI measurements are not direct measurements of the longitudinal or transverse paths taken during ADB testing. While the final rule limits the number of scenarios, it retains 6 different curved-path scenarios, including various radii for right and left curves. These paths may have slight, but potentially meaningful, differences in longitudinal IRI. While this longitudinal test surface roughness measurement is possible along each path, requiring a new IRI measurement any time the path is altered would be unnecessarily burdensome, considering it is possible to instead directly measure vehicle pitch. Additionally, the IRI can change over time, especially considering large temperature changes; it is possible that a path that in one season is under 1.5 m/km will exceed that value in a different season. Replacing the IRI parameter with a procedure for directly measuring and limiting the pitch variation of the test vehicle eliminates these concerns.

With respect to the comments by ALNA and Toyota, the commenters did not identify specific additional ways to specify the test conditions. For the reasons given here and elsewhere in the preamble, NHTSA believes the final rule sufficiently accounts for test surface conditions to control for the major sources of testing variability—including vehicle pitch—related to the test track.

e. Ambient and Reflected Light

The NPRM proposed to control for ambient and reflected light, which can interfere with test results, in a few ways.[156] Ambient illumination recorded by the photometers must be at or below 0.2 lux; testing must be conducted on dry pavement, and with no precipitation; the test road must be free of retroreflective material; and the pavement must not be bright white (to avoid intense reflections). Notwithstanding such controls, some degree of ambient light is unavoidable. Accordingly, in testing for compliance the agency proposed to zero-calibrate the photometers. SAE J3069 similarly specifies that the test track does not contain retroreflective material and that testing be conducted during clear weather on dry pavement.

Comments

Intertek tentatively agreed with NHTSA's assessment of the impact of stray and ambient light on the test. Some commenters, however, stated that the proposal did not sufficiently control for ambient light. The Alliance and Volkswagen commented that ambient light can change throughout the data collection (*e.g.,* due to clouds, the moon) during a test, which could introduce uncontrolled variability and difficulty in repeatability and reproducibility of test results. ALNA suggested applying tolerances for variations in test course surface conditions including ground reflectivity.

Volkswagen commented that the presence of reflectors in the environment could cause test results to vary and that the NPRM did not address environmental conditions such as fog, dust, or pollution which exist in real-world testing and can introduce variability that will present challenges for repeatability and reproducibility. Mobileye commented that the track test requirements should specify that fog and dust should not be present when performing testing. TSEI recommended the agency clarify how ambient conditions should be treated.

Agency Response

The final rule adopts the proposed test procedures, but modifies the photometer zero-adjustment procedure to reflect the fact that the test uses fixtures, not stimulus vehicles. The meters will continue to be zero-calibrated for each scenario tested.

With respect to the comment about ambient light changing throughout the test, NHTSA found that the ambient light did not change significantly during a test session. Further, NHTSA's testing method accounted for ambient conditions by measuring ambient illuminance either immediately before or after each test trial and subtracting that value from the recorded test data. The repeatability analysis, which included testing on different nights, showed that the night on which testing occurred did not appear to be a significant source of variation. The commenters did not recommend any alternative methods to account for ambient or reflected light. SAE J3069 does not specify how ambient conditions or reflected lighting are to be treated aside from requiring that ''[n]o other vehicle lighting devices shall be activated or any retro-reflective material present and care should be taken to avoid other sources of light, reflected or otherwise.'' [157] Although the final rule does not specify a baffle, the regulatory text does not prohibit it if it provides more accurate results for a particular location. The agency did not study adding baffles in a systematic way because testing did not show stray light to be a significant contributor to variability.

With respect to reflectivity, as noted above, the proposal (and final rule) specifies that the test road be free of retroreflective material and that the pavement may not be bright white. With respect to tolerances, although the agency does not expect reflectivity to affect the illuminance measurements, the allowance for momentary exceedances would be applied to spikes in illuminance caused by any such factors. NHTSA is not aware of any standardized way of accounting for dust or fog, and the commenters did not identify any such method. In any case, the same test conducted on different nights did not lead to much variation in results. Certainly, if ambient environmental conditions were such that there was an unusual concentration of particulates—or any other unusual conditions that would be likely to affect test results—NHTSA would not attempt to conduct compliance testing. In addition, NHTSA's testing showed that the ambient light did not appear to fluctuate dramatically in the relatively short times it took to perform a test run. And, as noted above, the recorded test data was adjusted by subtracting the ambient illuminance. The agency therefore believes that test outcomes will generally not be affected by changes in ambient light.

f. Superelevation

Superelevation refers to the degree of banking of a road. The NPRM specified that the test track have a superelevation of 0% to 2%. We explained that it was desirable to minimize the degree of banking because photometry design as well as the existing and derived glare limits are based on flat surfaces.

Comments

Auto Innovators commented that it found that modifications to the specified superelevation were necessary to accommodate the track lengths at its test facility.

Agency Response

The VDA test pad, on which NHTSA's most recent testing was conducted, has

[156] Ambient light refers to light emitted from a source other than the ADB system. This may include moonlight, light pollution from nearby buildings, or light coming from the test fixture itself. Reflected light refers to light from the ADB vehicle's headlamps reflected off the road or other surfaces (including rain or fog droplets) onto the photometric receptors.

[157] 5.5.2.1 and 5.5.3.1.

a slope of 1% in the direction between the two loops. That means that the largest superelevation that we tested was less than 1%. The superelevation would be 1% had we tested across the width of the pad and 0% had we tested along the length of the pad. All the recent NHTSA tests were conducted somewhere between these two extremes. Accordingly, every test scenario traversed had a superelevation of less than 1% (based on the TRC site plan).[158]

We recognize that superelevation could, conceivably, influence test results.[159] Depending on the details of the curve/fixture location, a large superelevation can either increase or decrease the likelihood that the measured illuminance will exceed the relevant glare limit. Superelevation effectively rotates the beam pattern around the centerline of the vehicle. If the rotation causes the pattern to rotate down with respect to the sensor location, it is less likely that the measured illuminance will exceed the glare limit; if, on the other hand, the rotation causes the pattern to rotate up with respect to the sensor location, the measured illuminance is more likely to exceed the glare limit. More specifically, on a left curve a positive superelevation will always make it less likely that the glare limit will be exceeded because the fixture is always on the left side of the beam pattern and the superelevation causes a rotation of the beam pattern counterclockwise. For the portions of a right curve at which the photometric receptors are to the left of the beam pattern, a positive superelevation will increase the likelihood that the measured illuminance will exceed the glare limit because the beam pattern is rotated clockwise for a positive superelevation on a right curve. Finally, for straight-path test scenarios, a large positive superelevation will always be more stringent because the ''crown'' in the road rotates the beam pattern clockwise and the fixture is always to the left.

We do not expect superelevation to have a meaningful impact on the test results, especially compared to the effect of vehicle pitch, which can materially impact test results. For this reason, we concluded that it was not necessary to include an adjustment for superelevation.

[158] *See* TRC site plan at *www.trcpg.com/wp-content/uploads/2016/10/Vehicle-Dynamics-Area.pdf* last accessed on February 16, 2021.

[159] In addition, the wider the specified range of superelevation, the more stringent the test, because the vehicle must perform over a larger range of superelevation angles.

g. Lane Divisions

The NPRM specified that the test track lanes may have a median of up to 6.1 m (20 ft) wide and should not have any barrier taller than 0.3 m (12 in.) less than the mounting height of the stimulus vehicle's headlamps. SAE J3069 does not specify any lane divisions or medians but does specify that the test track area be free from obstructions and retroreflective markings.

Comments

Mobileye commented that roads with narrow curves do not typically have such wide medians, and this will place the stimulus vehicle at a very wide angle to the host vehicle. Intertek questioned the need to consider medians or barriers and suggested that the median be limited to a standard lane divider. SL Corporation commented that a traffic barrier is not necessary and may make it difficult for ADB systems to accurately detect oncoming traffic, recommending that final rule provide a more detailed specification if retained. SAE questioned the inclusion of a 20-ft median for a 320-ft curve because medians of that size are typically found only on higher speed interstate roads which do not contain curves of that sharpness.

Agency Response

NHTSA agrees with commenters that a median or barrier is not useful for testing. These features are not included in the final rule.

h. Hills

The NPRM did not propose testing on sloped (dipped or hilly) roads, explaining that even headlighting systems with compliant lower beam photometry can glare oncoming or preceding vehicles on sloped roads because the hill geometry may place that vehicle in the brighter portion of the lower beam pattern. NHTSA's testing was consistent with this, showing ADB headlighting systems and FMVSS-compliant lower beams glared oncoming and preceding vehicles on roads with dips.[160] NHTSA tentatively concluded that to require this performance of ADB systems would be neither practical nor consistent with the approach of this rulemaking (extending the existing lower beam glare requirements to ADB systems).

Comments

AAA asserted that the track test should include scenarios with undulating roadways and hills but seemed to suggest that this might be limited to ADB systems with higher-intensity upper beams (*i.e.,* at the ECE maximum). AAA commented that ADB technology has the ability to avoid glaring other drivers in these situations, and that including this in the test will create pressure to more quickly and successfully address this.

Agency Response

The final rule does not include testing on dips or hills for several reasons. First, this approach would be more stringent than current requirements. Current lower beams create glare for other drivers on hills. The general approach of this rulemaking was to extend the current headlamp requirements to ADB systems, not to increase the stringency of existing requirements for ADB systems. Second, NHTSA's testing indicated that current ADB systems did not perform well on hill scenarios. Although including such scenarios in the track test could help speed the development of ADB systems with these advanced capabilities, it would likely make the systems more costly and slow deployment. Finally, NHTSA has not developed test procedures for such scenarios. This would take additional time and resources and would require developing a complex test track that would be specific to ADB testing. However, while it is outside the scope of the current rulemaking to test ADB systems to ensure that they produce less glare than current headlamps, NHTSA intends to monitor this issue and will consider future action if warranted.

10. Data Acquisition and Measurement

a. Photometers

The proposed regulatory text specified that the photometer must be capable of a minimum measurement unit of 0.01 lux.

Comments

Intertek suggested specifying that the photometric receiver have a cosine response and be spectrally matched to the photonic response of the human eye. It also suggested an accuracy limit of +/− 5% nominal over the full range of illuminance from 0.01 lux to the upper limit (about 100 lux).

Agency Response

NHTSA's testing utilized a Minolta T10A illuminance meter. The manufacturer's specifications indicated that it has a spectral response within 6% of the (CIE) human eye photopic vision [V(λ)] and a cosine correction characteristic within 3%. The photometers used in agency research

[160] 2015 ADB Test Report, pp. 102, 108, 114.

were capable of measuring light within 3% of the ideal cosine response. NHTSA agrees with Intertek's suggestion and has modified the regulatory text to include photometer specifications drawn from S14.2.5.7.3 and to specify a cosine response within 3%.

The agency also notes that the IIHS headlamp testing procedures [161] used baffles on the photometry equipment at 25 degrees to ensure that the light captured was more directly attributable to the test vehicle light source, and not to stray lighting that may be captured by the photometer. This 25-degree angle is roughly equivalent to the angles of incidence of light received from the light source when the test vehicle is approaching the stimulus through a curve on the roadway surface and equates to the angles at which ADB systems are typically scanning for targets to shade. NHTSA finds the IIHS test method specifications closely match our intent and has adopted similar language to include a 25-degree angle of incidence.

b. Sampling Rate

The NPRM proposed to sample illuminance at a rate of at least 200 Hz. SAE J3069 specifies a sampling rate of 10 Hz, and IIHS test methods sample illuminance at 200 Hz.

Comments

Volkswagen commented that sampling at 200 Hz would lead to a more complex selection of measuring equipment and analysis for each experiment and supported the SAE J3069 specification. Global requested that NHTSA explain the appropriateness of this minimum sampling rate and whether a maximum sampling rate should be specified.

Intertek commented that 200 Hz is near or exceeding the capability of most high-grade light meters and recommended reducing the sampling rate to 100 Hz in order to resolve illuminance in the ranges necessary for this test. Intertek also stated that reducing the sampling time to 100 Hz is supported by the allowance of momentary exceedances up to 0.1 seconds in duration (100 Hz would include 10 measurements within that 0.1 seconds) and suggested determining acceptance based on a time-averaged sampling rate at 10 Hz to account for very fast variances in the illuminance level as well as the human eye response.

Agency Response

After considering the comments, the final rule adopts a sampling rate of at least 100 Hz. NHTSA is balancing the need for precise data collection with the cost and availability of equipment. NHTSA agrees that 200 Hz is faster than the minimum needed to verify compliance, particularly considering the 0.1 second allowance, but the SAE sampling rate of 10 Hz simply provides too little data to ensure that ADB performance is within the specified glare limits. While a 200 Hz sampling rate matches that used by NHTSA in both its most recent research and in the research reported in the 2015 ADB Test Report (as well as that used by IIHS), and did not present any issues, NHTSA agrees with Intertek that a sampling rate as low as 100 Hz would provide adequate date collection to detect exceedances lasting near the 0.1 s allowance. As described by Intertek, a 100 Hz data collection method collects 10 readings within 0.1 s. This is adequate to judge a short exceedance, and an extra 10 readings provided by a 200 Hz rate would not substantially change that ability. A sampling rate of 10 Hz however would collect only a single reading over 0.1 s, making it difficult to judge the actual time a short exceedance lasts. The agency considered adding a maximum sampling rate but does not believe doing so is necessary because the final rule specifies an allowance for momentary glare exceedances (up to 0.1 s) as well as a low-pass filter with a cutoff frequency of 35 Hz.

NHTSA is not incorporating time-averaged sampling due to concerns that the delay associated with time-averaging would make it difficult to properly synchronize illuminance and distance. This is particularly important at higher vehicle speeds. Time-averaging (depending on the parameters) could also collect illuminance levels from one location over time and report that data at a moment while the vehicle is closer to the fixture. This would have the result of shifting illuminance levels down because all tests are arranged such that the vehicle approaches the fixture, and never moves away from it.

c. Noise and Filtering

The NPRM did not specify any filters other than the 0.1 s or 1m spike allowance, and the proposal did not explore this issue although it sought comment on it. The IIHS test procedure does specify that photometric sensor signals be filtered through a low-pass filter with a cutoff frequency of 35 Hz. This allows for accurate measurement of all existing types of headlamp light sources, including pulse width modulated systems like LEDs. IIHS test methods sample illuminance at 200 Hz, and any ambient offset for the measurements is based on the minimum ambient illumination from 1–5 seconds after the test vehicle has passed the measurement location.

Comments

Global requested that the agency clarify which standards OEMs will be permitted to use when removing test data noise from measured data, and suggested incorporating any such standards in the final rule or the formal compliance test procedure (NHTSA understands this to refer to the laboratory test procedure, which is not part of the regulatory text but is published separately by the Office of Vehicle Safety Compliance). Intertek suggested that to ensure that all the energy is accounted for, the minimum data acquisition rate should be 100 Hz, and the data should be subject to averaging or boxcar smoothing to reduce the effective sampling rate to a frequency of 10 Hz. Intertek alternatively suggested an integrating photometer with a period of 100 ms. The final product would then be the filtered illuminance (with PWM, pitch, and other sources of noise averaged out) reported with a frequency of 10 Hz (or another frequency such as 25 or 33 Hz based on the human eye response), or if boxcar averaging, it could be reported at 100 Hz (with the understanding that each measurement carries 10 Hz of averaging).

Agency Response

In response to Global's request, the final rule specifies that NHTSA will use a low-pass filter with a 35 Hz cutoff frequency.[162]

The low pass filter essentially reduces high-frequency noise by adjusting each data point by comparing it to the average of the neighboring data. Any individual points that are higher than the immediately adjacent points are reduced, and any points lower than the immediately adjacent points are increased. As long as the general data trends in the underlying signal are true (low frequency—allowed to pass), then the signal will not be distorted by smoothing. This filter is suitable for the types of measurements collected as it

[161] *See supra* note 93.

[162] As NHTSA has pointed out in the past, the FMVSS specify the procedures NHTSA will use in compliance testing. While manufacturers must exercise reasonable care in certifying that their products meet applicable standards, they are not required to follow the compliance test procedures set forth in a standard.

results in the most complete response to noise without detrimental effects on the data. Because the noise effects are assumed to be evenly distributed with a standard deviation (d), the noise remaining in the measurements will be approximately d over the square root of the smooth width (m) of 35 samples at the 100 Hz we are collecting data. At the finalized low-pass filter rate, that reduces the noise to less than 0.03 of the standard deviation of the noise in the lux. Filtering will not eliminate the measurement noise and will result in a slight reduction of the peak lux values measured during the track test. The agency does not expect this to affect test results, however, both because the reduction in the peak value is limited by the higher sampling rate (100 Hz versus 10 Hz for SAE) and because even at the broad width of the smoothing filter, the filter only smooths values over roughly a third of the ''sudden spike'' timing, allowing for differentiation of a spike from a non-compliance.

The box-car averaging has the advantage of filtering out both signal and test condition noise. Such data treatment is useful for smoothing rapidly changing signal data, such as that type of data that may result from vibratory effects as the test vehicle moves across the track test bed. It is essentially equivalent to using a low pass filter, as specified in the IIHS test procedure. The final rule is therefore consistent with Intertek's comments.

d. Allowance for Momentary Glare Exceedances

The NPRM proposed an allowance for momentary glare exceedances (or ''spikes'') of not greater than 0.1 second in duration or spanning 1 m of vehicle travel. This was intended to account for variations in illumination due to uncontrolled testing variables, such as minor imperfections in the road surface.[163] Minor imperfections in the road surface can cause glare exceedances by affecting vehicle pitch.

Comments

Some commenters believed the proposed allowance was insufficient. Toyota stated that the requirements to minimize glare go beyond the levels currently specified in the standard and beyond what is needed to meet a safety need and that, given the strict allowance for momentary glare, additional test parameters would need to be defined; for example, the vehicle pitch can vary (due to the condition of the road, suspension, tires, and the vehicle's acceleration), potentially affecting the compliance result. Similarly, SAE and Volkswagen commented that a 0.1 second allowance is insufficient, would frequently be exceeded even by compliant lower beams (for example, due to momentary changes in vehicle pitch), and it would be unreasonable to expect an ADB system to comply with the glare limits in the numerous proposed test scenarios with only that allowance. Auto Innovators proposed that NHTSA increase this allowance to 2.5 seconds, based on the human response time to the sudden appearance of an opposing or preceding vehicle. ALNA agreed that it is appropriate to apply tolerances in order to cover on-road application and reflect variations in test ground conditions.

SAE, Global, Ford, and the Alliance stated that in order to account for otherwise uncontrolled-for test variability, NHTSA should follow SAE J3069 such that the glare limits may be exceeded if the ADB illuminance does not exceed 125% of the lower beam illuminance from the vehicle measured under the same conditions. SAE, Global and Ford commented that this better represents real-world conditions and compensates for environmental factors such as dips and bumps in the road, reflectivity of lane markers, ambient light, and vehicle pitch.

Global commented that the term ''spike'' is not defined and recommended that it be defined relative to accommodating the natural behavior of certain headlamp light sources to have a ''spike'' of light intensity during the sequence of use.

Global also pointed out that in the proposed regulatory text (''no longer that 1 meter'') ''that'' should be replace with ''than.''

Auto Innovators commented that the distance exceedance limit should be eliminated because specifying both a time and distance specification is duplicative, and timing is more relevant to real-world driving.

Agency Response

The final rule retains the 0.1 second component of the momentary glare exceedance allowance and adds (as discussed in the next section) an allowance for vehicle pitch.

The momentary glare exceedance allowance accounts for testing-related variability caused by noise and uncontrolled test factors (such as uncontrolled ambient illuminance).[164] NHTSA believes that 2.5 seconds is an inordinately long time for a ''momentary'' exceedance, for the reasons discussed earlier.[165] The agency also declines to follow SAE J3069 and allow ADB illuminance to exceed lower beam illuminance by up to 25%. The reasons for this are discussed in Section VIII.C.4, Maximum Illuminance Criteria (Glare Limits). NHTSA agrees with Global that there was a typographic error in the proposed S14.9.3.12.8.1 (now at S14.9.3.12.2), which has been corrected in the final rule. The agency also agrees that even at the slowest test speed of 25 mph the limiting factor is time, not distance, and has removed 1 m from the text as it serves no practical purpose.

NHTSA is removing the term ''spike'' and replacing it with a clearer description of the adjustment: The agency will not consider, in determining compliance, ''single illuminance values or consecutive illuminance values occurring over a span of no more than 0.1 seconds that exceed the applicable maximum illuminance[.]'' The momentary glare exceedance duration may end in at least two ways. First, the illuminance value can drop below the applicable glare limit. Second, the glare limit itself might change (*i.e.,* increase). This could happen if the exceedance is experienced just before the glare limit changes. In either case, if the glare limit is not exceeded for more than 0.1 s, the exceedance will not be considered a noncompliance.

e. Vehicle Pitch

Pitch refers to rotation of a vehicle about its transverse axis appearing as an opposing vertical motion of the front and rear ends of a vehicle. When a vehicle's pitch increases, the vehicle's front end, and therefore the angle of its headlamps, will raise in an upward direction away from the road surface. Conversely, when pitch decreases, the vehicle's front end will lower, and the headlamps light will be cast downward towards the road surface.

The amount of glare perceived by other roadway users may be more pronounced when the headlamp is pitched upward. Common causes of changes in vehicle pitch angle include vehicle loading condition or weight

[163] This is different from an allowance for an adaptation time (referred to as ''reaction time'' in SAE J3069) which we understand as referring to another possible reason for a testing allowance: To account for the operation of the ADB system itself, because, as the discussion in SAE J3069 points out, ''ADB cannot react instantaneously.'' This is discussed in Section VIII.C.5 above.

[164] NHTSA, in its testing, did not observe any test-related variable other than pitch that led to a glare exceedance. While some limited glare exceedances lasting less than 0.1 seconds were not caused by pitch, these appeared to result from marginal performance from the ADB system. The 0.1 second allowance means that such exceedances would not be considered a noncompliance.

[165] *See* Section VIII.C.5, ADB Adaptation Time.

distribution, tire inflation that deviates from specifications, irregularities or pitting in the road surface, vehicle suspension characteristics, and vehicle acceleration. As mentioned above, the NPRM did not propose any adjustments to correct directly for or take vehicle pitch into account as part of the compliance track testing, although it specifically sought comment on this.

In the IIHS test method, pitch effects are corrected by measuring road surface pitch changes through a self-leveling horizontal rotary laser system every 5 m along the test track surface. The pitch angles at each measured position are measured, and photometers placed at different heights provide the illuminance data for each measurement location. Once this illuminance data is collected, a pitch correction factor is calculated that is used to offset any exceedance of glare limits based on the roadway conditions.

Comments

As noted in the section above on allowances for momentary glare exceedances, several commenters noted the potential effect of vehicle pitch on test results. For this reason, Ford recommended NHTSA adopt the IIHS pitch correction protocol. Ford commented that pitch correction is essential to produce results that are independent of differences in vehicle suspensions and are repeatable at different test tracks and different locations on the test tracks themselves. Ford noted that dynamic testing makes illuminance more difficult to measure because throughout the driving event, the vehicle pitch changes and effects from instrumentation inaccuracies increase proportionately. On the other hand, Intertek claimed that pitch correction would not be necessary unless there is a sustained change in pitch longer than 0.1 seconds.

Agency Response

After analyzing the comments and its own testing NHTSA has modified the proposal by adding in an explicit allowance for pitch variation: The agency will not consider any illuminance measurements recorded while the vehicle pitch exceeds the average pitch recorded throughout the entire measurement distance range specified for that scenario by more than 0.3 degrees.

Although the NPRM did not propose any adjustments to directly take vehicle pitch into account, the NPRM requested comment on this issue. Further, the proposed test procedures controlled for the following factors that could affect pitch:

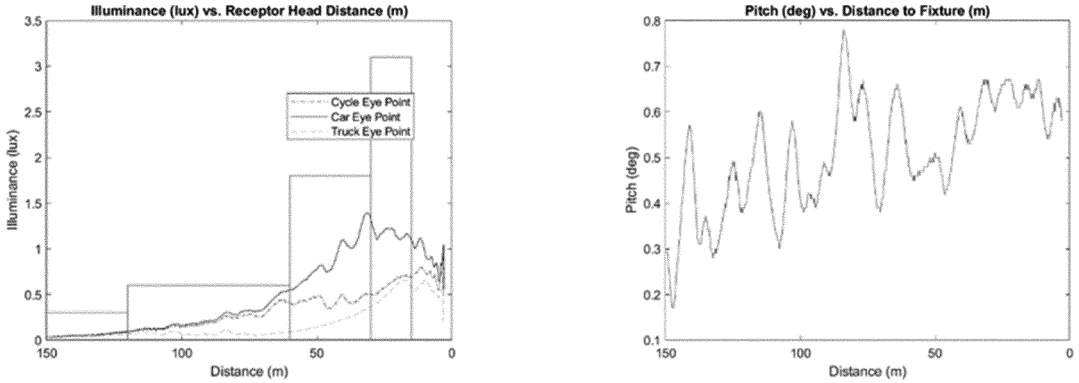
- Vehicle loading and suspension—the headlamps will be aimed when the vehicle is loaded as it will be during testing, and the gas tank (if the vehicle is equipped with one) is maintained at lease three-quarters full. The tires will be within 1 psi of recommended cold pressure.
- Road surface—the road surface must have an IRI measurement of less than 1.5 m/km.
- Vehicle acceleration—the vehicle speed must be maintained within 1 mph of the target test speed throughout the test run.

In addition to these procedures, as explained above, the proposal also contained an allowance for momentary glare exceedances that was intended to account for variations in illumination due to uncontrolled testing variables, including minor imperfections in the road surface that can cause glare exceedances by affecting vehicle pitch.

Despite these specifications, NHTSA's test data revealed two situations in which vehicle pitch still impacted measured illuminance and were not accounted for in the provisions listed above.

First, NHTSA repeatedly observed small cyclical pitch changes related to road surface undulations, which affected illuminance measurements. For one example, see Figure 34.

Figure 34. Fusion's lower beam 250 m left at 41 mph



Here, where the maximum pitch occurs (at about 85 m), there is a peak in the illuminance reading. The highest illuminance value (at about 31 m) also coincides with a positive spike in pitch. (In these instances, the pitch did not exceed the average pitch by more than 0.3 degrees, so if this were a compliance test, these values would still be considered when assessing compliance; in any case, in this instance, all illuminance values are still within the glare limits).

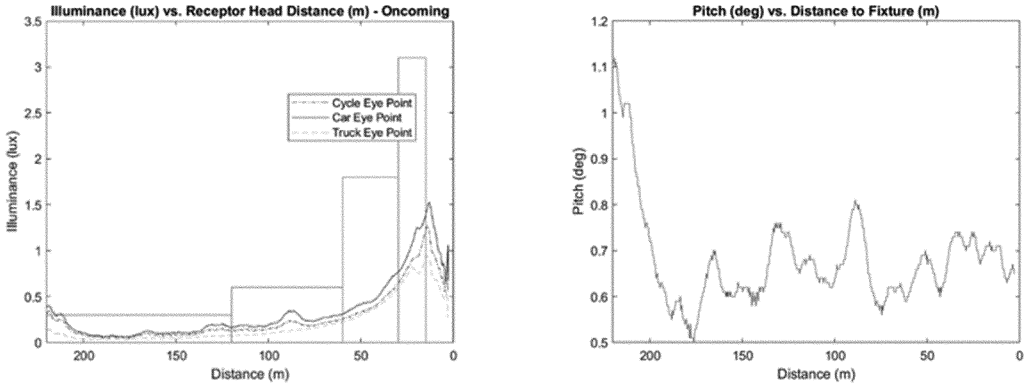
To better understand the sources of the pitch oscillations identified in testing, NHTSA collected pitch information both when the test vehicle was moving, and when it was stationary at the same (or as close as possible) location on the test surface. See Table 7. The pitch measurements were similar, indicating that dynamic contributors were generally small. Accordingly, although the testing did not show any instances where pavement-related vehicle pitching led to a glare exceedance that would be excused through the final pitch variation allowance, the agency recognizes the possibility for this to occur and has thus accounted for pitch in the regulatory text.

TABLE 7—VEHICLE PITCH IN STATIC AND DYNAMIC STATES

Distance	Pitch (deg.)
Speed: 41 mph:	
148.982	0.3
119.254	0.46
59.605	0.51
29.926	0.64
15.145	0.65
Speed: 0 mph (static):	
149.058	0.17
119.274	0.51
59.650	0.46
29.939	0.63
15.152	0.63

Second, NHTSA observed pitch changes related to acceleration. For example, NHTSA tested the lower beams on the Fusion at 69 mph in a straight-path scenario. See Figure 35. When the vehicle reached the beginning of the illuminance measurement range (220 m) it had not yet attained the target speed, so it was still accelerating and pitching upward, resulting in an ''exceedance'' of the applicable glare limit. The pitch of 1.1 degrees during the exceedance was greater than 0.3 degrees over the average pitch of 0.68 degrees. This shows that pitch in excess of the proposed allowance could lead to an exceedance of the glare limits.[166]

Figure 35. Example of application of vehicle pitch allowance



Based on these instances of vehicle pitch fluctuations impacting measured illuminance (due to either the road surface or acceleration), the final rule includes an allowance for vehicle pitch variation. NHTSA's testing demonstrated that it is generally possible to maintain pitch within less than 0.3 degrees of the average pitch recorded throughout the entire measurement distance. We believe that no allowance for pitch, or a higher pitch variation allowance (*e.g.,* ''by no more than 0.4 degrees)—resulting in a more stringent test—could lead manufacturers to design headlamps providing sub-optimal visibility (because manufacturers might aim the headlamps down to minimize the possible effects of pitch during a compliance test).

We believe this adjustment methodology is preferable to the IIHS pitch correction procedure for the purposes of this rule. The IIHS test procedure relies on interpolation, which introduces inaccuracy (without knowing the linearity of the beam pattern). The final rule methodology does not interpolate but instead measures pitch directly. By controlling pitch to 0.3 degrees or less and regulating performance only within that range, we are directly measuring the aspect of performance that matters to safety. The IIHS procedure also requires that the vehicle path be mapped with respect to pitch prior to running the test. The final rule procedure does not require this, which simplifies the test procedure.

11. Repeatability

The NPRM included an analysis of the repeatability of the test data from the 2015 ADB Test report.[167] That test data was based on the proposed test procedures, which utilized dynamic stimulus vehicles.

Comments

NHTSA received a variety of comments on the repeatability of the proposed test. One commenter, Intertek, agreed with NHTSA's repeatability analysis. Other commenters expressed concerns that the proposed test procedures were not repeatable based upon the complexity of the proposed test procedures and a variety of test conditions that might affect repeatability. Commenters identified several factors they argued would adversely affect repeatability.[168]

Auto Innovators, MEMA, the Alliance, TSEI, and Volkswagen commented that the proposed track testing was overly complicated and expressed concerns that it would not lead to repeatable results.

SAE commented generally that test results (both for tests conducted on the same track and for tests conducted on different tracks) would be sensitive to the environment because lighting measurements are affected by small changes in conditions. Other commenters echoed this and identified unspecified test conditions that they argued could introduce uncontrolled variability, causing acceptable levels of repeatability and reproducibility of the test scenarios to be extremely challenging to achieve, particularly given the stringency of the requirements. The Alliance and Volkswagen commented that, although the NPRM requires the photometers to be zero-calibrated to the ambient light, the ambient light can change throughout the data collection, introducing uncontrollable variability. Volkswagen

[166] Because the target speed had not yet been attained, had this been a compliance test, the measured illuminance value would not be having been considered in determining compliance. We also note that this glare exceedance lasted for more than 0.1 second, so it would not have been addressed with the momentary glare allowance.

[167] NPRM, pp. 51789–51798.

[168] A number of comments about repeatability were related to the proposal to use stimulus vehicles. Because the final rule does not use stimulus vehicles, we need not address those comments as the issue is moot.

also stated that the presence of reflectors in the environment may also cause variances by redirecting part of the test vehicle lights into the photometers. Volkswagen also commented that the NPRM only specified that there be no precipitation and a dry road surface, but other environmental conditions such as fog, dust, or pollution could affect results. TSEI identified variation in road materials and reflectivity, weather conditions, and road surface as other factors. Toyota identified the test vehicle's suspension, tires, and acceleration/deceleration during the test as affecting repeatability; it stated that it is unclear whether any test track meets the ideal conditions specified in the proposal, and, if so, whether such a test track can be reasonably accessible to conduct compliance testing.

Auto Innovators commented that to evaluate testing variability, one member company repeated a test series using a vehicle tested by FTTA and cited in the NPRM. The full test series was repeated under the same conditions using comparable measurement equipment. The commenter stated that, despite careful attention to test setup and test conditions, the results varied from those obtained by FTTA to the extent that the variation altered the compliance status of the vehicle.

Agency Response

The final rule substantially reduces the complexity of the test, especially by using test fixtures instead of stimulus vehicles and streamlining the test scenarios. Further, while it is true that lighting measurements can be sensitive to small changes in conditions, NHTSA's testing has shown that measurement of headlamp illuminance using the whole vehicle, rather than a component-level test, can be accomplished in a repeatable manner.[169] NHTSA has identified, and the test parameters and conditions specified in the final rule control for, the major sources of test-related variability, including vehicle pitch. This final rule also includes a data filter, which will smooth out the measured illuminance data, in addition to the proposed allowance for momentary glare exceedances, which should address any otherwise uncontrolled ambient illumination, among other things.

NHTSA conducted a series of tests to determine the level of variability in the track test finalized today, as well as the SAE J3069 test method.[170] To do this, NHTSA analyzed data from testing using the original-equipment lower beams on a FMVSS-certified 2016 Volvo XC90. Multiple runs of each test scenario were conducted to permit different types of repeatability analyses, including: Same night (gauge); different night (test procedure); and different headlamp aiming technician (reproducibility). Data from these test trials were analyzed for each measurement distance sub-range (interval), calculating the mean, standard deviation, 95% confidence interval, and 95% prediction interval.[171] Sample results of Test Number 1 (straight—oncoming) for the sub-range of 120 m to 220 m are shown below in Tables 8 through 10. (Throughout this section, ''Test Number'' refers to the scenario test numbers as reported in the repeatability report. Please see Table 1 (NHTSA Test Matrix) in that report. The test scenarios in the repeatability report are the same as the test scenarios specified in Table XXII of this final rule, but the numbering of the test scenarios differs.) Data similar to this (*i.e.,* 10 test repetitions, 10 separate test days, and 3 headlamp aiming technicians) were collected for every final rule scenario. Testing with the lower beam headlamps activated (the test vehicle was not ADB-equipped) allowed the agency to isolate variability to factors related to the test and to be certain that ADB performance itself did not contribute to variability. Oncoming and same direction data were collected during the same run, using receptor heads (*i.e.,* light sensors) placed in the appropriate positions.

TABLE 8—NHTSA TEST NO. 1, 220 M–120 M, GAUGE (MEASUREMENT SYSTEM) REPEATABILITY

Descriptive statistic	Repetition (all in one night)	Car eye point (lux)	Cycle eye point (lux)	Truck eye point (lux)	Difference between pitch maximum (sub-range) and pitch average (entire measurement distance) (degrees)
	1	0.0688	0.0751	0.0652	0.0900
	2	0.0666	0.0802	0.0602	0.1600
	3	0.0751	0.0724	0.0618	0.1400
	4	0.0665	0.0764	0.0560	0.1000
	5	0.0686	0.0675	0.0561	0.1100
	6	0.0711	0.0722	0.0599	0.1000
	7	0.0709	0.0730	0.0542	0.1100
	8	0.0830	0.0763	0.0590	0.1000
	9	0.0693	0.0822	0.0574	0.0900
	10	0.0736	0.0822	0.0625	0.1400
Mean		0.0714	0.0758	0.0592	
StdDev (*S*)		0.0049	0.0048	0.0034	
Min		0.0665	0.0675	0.0542	
Max		0.0830	0.0822	0.0652	
95% C.I. Margin of Error (+/-)		0.0035	0.0034	0.0024	
95% C.I. Upper Limit		0.0749	0.0791	0.0617	
95% C.I. Lower Limit		0.0678	0.0724	0.0568	
95% Prediction Interval Margin of Error (+/-)		0.0117	0.0113	0.0080	

[169] 2105 ADB Test Report, p. 172.

[170] *See* Mazzae, E.N., Baldwin, G.H.S., Satterfield, K., & Browning, D.A. 2021. Adaptive Driving Beam Headlamps Test Repeatability Assessment. Washington, DC: National Highway Traffic Safety Administration. The discussion here is a summary of that report, which has been placed in the docket for this rulemaking.

[171] NHTSA has used similar analyses before to assess the reliability and repeatability of test methods developed for FMVSS. As an example, refer to the test report ''Repeatability, Reproducibility, and Sameness of Quiet Vehicle Test Data'' supporting the development of FMVSS No. 141, Minimum sound level for hybrid and electric vehicles. *See* Docket number NHTSA–2016–0125–0006 at *www.regulations.gov.*

TABLE 8—NHTSA TEST NO. 1, 220 M–120 M, GAUGE (MEASUREMENT SYSTEM) REPEATABILITY—Continued

Descriptive statistic	Repetition (all in one night)	Car eye point (lux)	Cycle eye point (lux)	Truck eye point (lux)	Difference between pitch maximum (sub-range) and pitch average (entire measurement distance) (degrees)
95% P.I. Upper Limit		0.0831	0.0870	0.0673	
95% P.I. Lower Limit		0.0596	0.0645	0.0512	

TABLE 9—NHTSA TEST NO. 1, 220 M–120 M, TEST PROCEDURE REPEATABILITY

Descriptive statistic	Repetition (one per night)	Car eye point (lux)	Cycle eye point (lux)	Truck eye point (lux)	Difference between pitch maximum (sub-range) and pitch average (entire test number range) (degrees)
	1	0.0839	0.0905	0.0774	0.1048
	2	0.0847	0.0805	0.0564	0.1072
	3	0.0796	0.0857	0.0662	0.1030
	4	0.0713	0.0772	0.0522	0.1313
	5	0.0745	0.0865	0.0634	0.1061
	6	0.0777	0.0865	0.0614	0.1260
	7	0.0717	0.0745	0.0554	0.1226
	8	0.0794	0.0718	0.0559	0.1271
	9	0.0817	0.0884	0.0679	0.1210
	10	0.0815	0.0686	0.0581	0.0990
Mean		0.0786	0.0810	0.0614	
StdDev (*S*)		0.0048	0.0076	0.0076	
Min		0.0713	0.0686	0.0522	
Max		0.0847	0.0905	0.0774	
95% C.I. Margin of Error (+/-)		0.0034	0.0055	0.0054	
95% C.I. Upper Limit		0.0820	0.0865	0.0668	
95% C.I. Lower Limit		0.0752	0.0755	0.0560	
95% Prediction Interval Margin of Error (+/-)		0.0113	0.0181	0.0179	
95% P.I. Upper Limit		0.0899	0.0991	0.0794	
95% P.I. Lower Limit		0.0673	0.0629	0.0435	

TABLE 10—NHTSA TEST NO. 1, 220 M–120 M, REPRODUCIBILITY

Descriptive statistic	Aimer	Repetition	Car eye point (lux)	Cycle eye point (lux)	Truck eye point (lux)	Difference between pitch maximum (sub-range) and pitch average (entire test number range) (degrees)
	A	1	0.0545	0.0599	0.0578	0.1323
	B	1	0.0673	0.0672	0.0581	0.1522
	B	2	0.0658	0.0662	0.0556	0.0977
	C	1	0.0632	0.0631	0.0545	0.0983
	C	2	0.0676	0.0663	0.0540	0.1549
Mean			0.0637	0.0645	0.0560	
StdDev (*S*)			0.0054	0.0030	0.0019	

The standard deviation is a measurement of the variation within the data set. The 95th percentile confidence interval is the estimate of the upper and lower illuminance values in which there is a 95% probability that the true mean falls within this interval. The confidence interval is calculated using the equation

$$CI_{95\%} = \bar{x} \pm t_{0.975,n-1} S \sqrt{\frac{1}{n}}$$

Where the margin of error is calculated using t as the upper critical value for the t distribution with n-1 degrees of freedom, S as the standard deviation, n as sample size. The confidence interval is then calculated by summing the mean ($\bar{x}$) and the margin of error. The 95th percentile prediction interval is the estimate of the interval of which there is a 95% probability that future measurements will be within. The prediction interval is calculated using the equation:

$$PI_{95\%} = \bar{x} \pm t_{0.975,n-1} S \sqrt{1 + \left(\frac{1}{n}\right)}$$

Where the margin of error is calculated using t as the upper critical value for the t distribution with n-1 degrees of freedom, S as the standard deviation, and n as the sample size. The prediction interval is then calculated by summing the mean ($\bar{x}$) and the margin of error.

Note that $CI_{95\%}$ and $PI_{95\%}$ are dependent on the number of values collected ($t_{0.975}$ is large for small sample sizes and decreases as more data are collected). That is to say, the more data collected for a distribution, the more confident we can be of where the true mean is located and where future measurement values will fall. While a standard deviation can be calculated for a very small sample size, CI and PI will be large for small samples, even if the population standard deviation is small. Taken together, the standard deviation and the prediction interval can be used to quantify the repeatability of the test procedure. The smaller the standard deviations and the tighter the prediction interval, the smaller the range of values we will expect future values to be within, indicating a tighter precision of measurement system.

The magnitude of the prediction intervals can be used to determine how a vehicle with a similar headlighting system and beam pattern is likely to perform with respect to the glare limits. The prediction interval indicates the range within which a similar vehicle's measured illuminance value is 95% likely to fall (5% chance of not falling within the range). If the upper end value of the prediction interval is less than the glare limit for a measurement distance sub-range, then a similar vehicle's measured value is at least 95% likely to be less than the glare limit when tested by NHTSA.[172] Because the repeatability of the measurement system and test procedure produced small standard deviations, the variability of the illuminance values should not differ substantially, even if the maximum illuminance value for other headlighting systems is higher. This assumption holds true provided the headlamp beam pattern under test demonstrates similar gradients in and around the measurement locations.

Table 11 below pools the standard deviation for the oncoming straight and left curve scenarios (Test Number 1,3,4,7—each of these tests provide similar means), and the same direction straight and left curve scenarios (Test Number 2,5), and lists the standard deviation observed for the oncoming right medium curve (Test Number 6) and oncoming-right large curve (Test Number 8) for each measurement distance sub-range.

TABLE 11—TEST PROCEDURE: STANDARD DEVIATION RESULTS

NHTSA	Oncoming NHTSA test numbers 1, 3, 4, 7 (lux)	Same direction NHTSA test numbers 2, 5 (lux)	Oncoming right NHTSA test number 6 (lux)	Oncoming right NHTSA test number 8 (lux)
Measurement Distance Sub-Range:	All standard deviations were at or below:			
220 m–120 m	0.0076			
150 m–120 m	0.0068			
119.9 m–60 m	0.0156			
100 m–60 m		0.0153		
70 m–60 m				0.5996
59.9 m–30 m	0.0599	0.0494		0.5921
50 m–30 m			0.9648	
29.9 m–15 m	0.0713	0.1324	0.0651	0.0602

TABLE 12—PREDICTION INTERVAL MARGIN OF ERROR VALUES OF THE TEST PROCEDURE
[NHTSA Test]

Measurement distance sub-range	Glare limit (lux)	Test number 1	Test number 2	Test number 3	Test number 4	Test number 5	Test number 6	Test number 7	Test number 8
95th Percentile Prediction Interval Car Eye Point/Passenger Side Mirror (Values in lux)									
220 m–120 m	0.3	0.0113 (3.8%)						0.0128 (4.3%)	
150 m–120 m	0.3				0.0145 (4.8%)				
119.9 m–60 m	0.6	0.0357 (6.0%)			0.0238 (4.0%)			0.0171 (2.9%)	
70 m–60 m	0.6								1.4225 (237%)*
50 m–30 m	1.8						2.2890 (127%)*		
59.9 m –30 m	1.8	0.0741 (4.1%)		0.0690 (3.8%)	0.0933 (5.2%)			0.0812 (4.5%)	1.4047 (78%)*
29.9 m–15 m	3.1	0.1436 (4.6%)		0.1672 (5.4%)	0.1693 (5.5%)		0.1534 (4.9%)	0.1637 (5.3%)	0.1427 (4.6%)
100 m–60 m	4.0		0.0331 (0.8%)			0.0189 (0.5%)			

[172] For example, if this analysis produces a 95% prediction interval of 0.180 lux and the limit is 1.8, a system with a true performance of 1.62 or less will have a 95% or greater probability of receiving a passing score if the agency were to do a compliance test, using a single run.

TABLE 12—PREDICTION INTERVAL MARGIN OF ERROR VALUES OF THE TEST PROCEDURE—Continued
[NHTSA Test]

Measurement distance sub-range	Glare limit (lux)	Test number 1	Test number 2	Test number 3	Test number 4	Test number 5	Test number 6	Test number 7	Test number 8
59.9 m–30 m	18.9	.....	0.0963 (0.5%)	.....	.....	0.1121 (0.6%)	.....	.....	
29.9 m–15 m	18.9	.....	0.2348 (1.2%)	.....	.....	0.3141 (1.7%)	.....	.....	

The prediction intervals shown in Table 12 are small compared to the limits that are finalized for each measurement distance sub-range. For instance, we found that within the sub-range of 120 m to 220 m Test Number 1 resulted in a prediction interval of 0.0113 lux as compared to the limit of 0.3 lux. This interval represents 3.8% of the limit.

Both measurement system (gauge) repeatability results and full test repeatability results revealed NHTSA test scenarios involving right curves (Test Numbers 6 and 8) to be less repeatable than the other test scenarios (marked with * in the table). Unsurprisingly, these two scenarios showed a pattern of higher standard deviations with respect to the other NHTSA test scenarios. SAE Test Drive 3, in which the test fixture was located to the right of the test vehicle also showed a pattern of higher standard deviations as compared to the other scenarios. As is the case with many U.S. vehicle lower beam headlamps, the 2016 Volvo XC90 lamps produced beam patterns with a higher right-side horizontal cutoff. The variability of measurements recorded on the right side of the vehicle (right curve scenarios) is attributable to the cutoff at the right portion of the headlamp pattern of this vehicle projecting near the location of the lower-mounted light sensors. The lower beam headlamps tested in this repeatability study exceeded the glare limits for these two-measurement distance sub-ranges as well. An ADB pattern designed to meet the requirements finalized today will need to provide a greater angular distance between the cutoff and the light sensors to meet the minimum glare requirements as described earlier in the right curve discussion. With such a design, the agency anticipates that similar repeatability will be obtained for right curves as was demonstrated for the other scenarios.

Breaking down the 8 NHTSA test scenarios by measurement distance sub-range and measurement points (light sensor locations) gives a total of 99 data points. The finalized test method found the same pass/fail results for 97 of the 99 data points in every one of the 10 test procedure repetitions. For the vehicle's lower beam headlamps under test, 94 of those data points, without fail, were under the glare limit criteria and 3 of the data points consistently exceeded the glare limits. The vehicle consistently failed to meet the glare criteria for Test Number 6 (medium right curve) at the car eye point for the sub-range 50 m–30 m. It also consistently failed to meet the glare criterion for Test Number 8 (Large Right Curve) at the Car Eye and Cycle Eye point for the sub-range 70 m–60 m. The 2 data points with inconsistent results (sometimes the test reported that the vehicle met the criteria and other times it reported a failure) were also found on these two right curve tests. Test Number 6 had mixed results at the cycle eye point for the sub-range 50 m–30 m and Test Number 8 had mixed results at the car eye point for the sub-range 59.9 m–30 m. As discussed above, we do not expect any mixed results for an ADB beam pattern designed to meet the track test finalized today.

NHTSA also conducted testing to examine the possibility of variability introduced by different technicians visually aiming the headlamps. This reproducibility analysis examined the effects of three different technicians performing headlamp aiming prior to running a test set. This analysis found only small differences in illuminance measurements between datasets associated with different headlamp aiming operators. The pooled standard deviations for each orientation are shown in Table 13 below.

TABLE 13—REPRODUCIBILITY: STANDARD DEVIATION RESULTS

	Oncoming NHTSA test numbers 1, 3, 4, 6, 7, 8 (lux)	Same direction NHTSA test numbers 2, 5 (lux)
Measurement Distance Sub-Range:	All standard deviations were below:	
220 m–120 m	0.0055	.....
150 m–120 m	0.0069	.....
119.9 m–60 m	0.0123	.....
100 m–60 m	N/A	0.0153
70 m–60 m	0.0122	.....
59.9 m–30 m	0.0366	0.0521
50 m–30 m	0.0355	.....
29.9 m–15 m	0.0933	0.1264

NHTSA also assessed the repeatability of the SAE J3069 test (Table 14). We found that the SAE test resulted in similar variability of both measured illuminance and test outcomes.

TABLE 14—TEST PROCEDURE: STANDARD DEVIATION RESULTS

NHTSA	Oncoming NHTSA test numbers 1, 3, 4, 7 (lux)	Same direction NHTSA test numbers 2, 5 (lux)	Oncoming right NHTSA test number 6 (lux)	Oncoming right NHTSA test number 8 (lux)
Measurement Distance Sub-Range:	All standard deviations were at or below:			
220 m–120 m	0.0076	.....	.....	.....
150 m–120 m	0.0068	.....	.....	.....
119.9 m–60 m	0.0156	.....	.....	.....
100 m–60 m	.....	0.0153	.....	.....
70 m–60 m	.....	.....	.....	0.5996
59.9 m–30 m	0.0599	0.0494	.....	0.5921
50 m–30 m	.....	.....	0.9648	.....
29.9 m–15 m	0.0713	0.1324	0.0651	0.0602
SAE	**Oncoming SAE test drives 1, 2 (lux)**	**Preceding SAE test drives 10, 11, 12 (lux)**	**Oncoming SAE test drive 3 (lux)**	**Preceding SAE test drive 12 (lux)**
Measurement Distance:	All standard deviations were at or below:			
155	0.0141	0.0228	0.1234	0.1436
120	0.0132	0.0231	0.1489	0.1909
60	0.0219	0.0226	0.2464	0.3020
30	0.0380	0.0341	0.0413	0.3503

D. Laboratory (Component-Level) Testing

1. Need for Laboratory Testing

The NPRM proposed that an ADB system would also be subject to the existing component-level laboratory-based upper and lower beam photometry requirements. With respect to the adaptive beam, the NPRM proposed that an area of reduced intensity meet the applicable Table XIX lower beam photometry requirements (maxima and minima), and that an area of unreduced intensity meet the applicable Table XVIII upper beam photometry requirements. The NPRM proposed that when the ADB system is producing a lower beam, that beam be subject to all the Table XIX lower beam requirements, and when producing an upper beam, the beam be subject to all the Table XVIII upper beam photometric requirements. The NPRM proposed to require that the system provide only a lower beam when the vehicle is travelling less than 25 mph (unless overridden by the driver).[173]

This differed from SAE J3069 in some respects. SAE J3069 only specifies that the lower beam maxima are not exceeded within the area of reduced intensity, and that the lower beam minima be met in the area of unreduced intensity. (These provisions reference the relevant SAE photometric standards; the proposal instead appropriately referenced the upper and lower beam photometric requirements in Tables XVIII and XIX of the standard.)

Comments

Some commenters supported the inclusion of at least some laboratory testing requirements. AAA and Intertek supported applying the existing upper beam photometric requirements to the upper beam, Consumer Reports supported requiring that the part of the adaptive beam that is cast near other vehicles not exceed the current lower beam maxima, and the part of the adaptive beam that is cast onto unoccupied roadway not exceed the current upper beam maxima. Consumer Reports also supported applying the lower beam minima to areas of reduced intensity and the upper beam minima to areas of unreduced intensity. Zoox supported applying the existing laboratory requirements to the upper and lower beams.

In contrast, both SAE and Global disagreed that photometric component testing is necessary in addition to vehicle testing. SAE explained that, when SAE J3069 was published, component level testing was included as an additional metric to aid in lamp manufacturers' process controls and also because it is a familiar compliance method. The SAE J3069 rationale accordingly explained that, if vehicle-level testing of ADB systems were to be included in FMVSS No. 108, ''any need for laboratory photometric requirements may be reconsidered for removal.'' SAE therefore requested that the final rule not include component testing.

Agency Response

The final rule retains the laboratory testing requirements because the full-vehicle track test alone may not be sufficient to ensure that an ADB system provides adequate visibility and does not glare other vehicles, as discussed further below. Accordingly, the final rule applies the existing laboratory testing requirements to any beam an ADB system may provide (a lower beam, an upper beam, or an adaptive driving beam). (The different types of beams classified in the final rule are discussed in Section VIII.D.2.)

The full vehicle track test and the laboratory-based component test are complementary. The full vehicle dynamic track test only evaluates glare; it does not evaluate visibility. The final requirements include laboratory testing requirements that ensure that the ADB system always provides the driver with a minimum level of visibility.

The laboratory testing requirements generally assure adequate visibility by specifying minimum levels of light at certain locations (test points) that roughly correspond to different locations on the road. As explained in Section VIII.D.2, we have modified the proposal to give manufacturers greater flexibility in determining which areas of the roadway receive an area of reduced intensity or an area of unreduced intensity. For the former, the appropriate minimum visibility is the applicable lower beam minima; for the

[173] For a general explanation of the laboratory photometry requirements, see the NPRM at p. 51770.

latter, the appropriate minimum visibility is the applicable upper beam minima. Similarly, the lower beam minima indicate the appropriate minimum visibility for the lower beam, and the upper beam minima for the upper beam.

Laboratory testing will complement the track test to minimize glare to other vehicles. The laboratory testing requirements minimize glare by specifying photometric maxima at certain test points. The track test evaluates whether an ADB system glares a test fixture in specific scenarios. While the final track test requirements encompass many common scenarios (*e.g.,* a single oncoming vehicle in the adjacent lane), they do not test every conceivable scenario. Laboratory testing will therefore help serve as a backstop to the track test. Moreover, the track test evaluates glare out to 220 meters. Extremely bright upper beams (for example, an ECE-approved upper beam that exceeds the current FMVSS No. 108 75,000 cd upper beam maximum) could create glare further than this distance. The laboratory testing requirements will therefore also ensure that upper beams are not exceedingly bright. (Indeed, if the current upper beam maxima did not apply to the upper beam of an ADB system, upper beam maximum intensity would effectively be unregulated). Accordingly, the final rule specifies that the lower beam and an area of reduced intensity must not exceed any applicable Table XIX (lower beam) maxima, and the upper beam and areas of unreduced intensity must not exceed any applicable Table XVIII (upper beam) maxima.

2. Definitions of Areas of Reduced and Unreduced Intensity

The NPRM proposed (in S9.4.1.6.6–.7) that ''when the system is producing a lower beam with an area of reduced light intensity designed to be directed towards oncoming or preceding vehicles, and an area of unreduced intensity in other directions,'' the system must meet the Table XIX (lower beam) photometric requirements within the area of reduced intensity and the Table XVIII (upper beam) photometric requirements in the within the area of unreduced intensity. The proposed rule did not otherwise define the areas of reduced and unreduced intensity.

Comments

Several commenters suggested clarifications to the definitions or references to the areas of reduced and unreduced intensity. ALNA, Zoox, and Valeo commented that the definitions of the area of reduced intensity and/or area or unreduced intensity were unclear. Mercedes suggested expanding the definition of the area of reduced intensity to include portions of the roadway other than those occupied by other vehicles because sophisticated ADB systems are capable of dimming areas of the beam pattern directed towards retroreflective signs or wet road surfaces in order to minimize glare to the driver. Stanley requested confirmation that the area of reduced intensity corresponds to the windshield area of an oncoming vehicle and the area of unreduced intensity refers to the area outside of the area of reduced intensity. Ford suggested edits to clarify the regulatory text setting out the dimmed and undimmed area requirements. It suggested that instead of referring to the lower beam, the regulatory text refer to the ''adaptive driving beam,'' and suggested rearranging the regulatory text. Valeo similarly commented that classifying the adaptive beam as a lower beam is misleading because it is actually a modified driving or upper beam and suggested including a definition of ''adaptive driving beam.'' Intertek suggested requiring that the system emit a base lower beam, which is only augmented by adding light to the portions of the beam in which a preceding or oncoming vehicle is not detected, to the limit that when there are no preceding or coming vehicles detected the emitted beam is a compliant upper beam. This would, it contended, ensure that the augmented lower beam is always compliant to the applicable lower beam photometry requirements. Zoox commented that the NPRM appeared to assume that the adaptive beam is a defined, static beam pattern that is generated based on camera recognition of oncoming or preceding traffic. It stated that the laboratory test requirements should be technology neutral with respect to the manner and method of controlling and producing an adaptive beam.

Some commenters requested that the agency establish more specific laboratory test requirements. Zoox commented that the proposed laboratory test requirements were not clear on how to determine which portion of an adaptive beam is to be checked against the lower beam or upper beam minima and maxima. For example, a system may progressively dim an LED array across the headlamp width as vehicle distance closes for oncoming traffic. The ADB pattern may also differ for oncoming versus preceding traffic. Zoox requested clarification of which test points would apply and how they would be evaluated. SL and Intertek commented that specific test requirements need to be established because it would be impracticable to test the hundreds of possible adaptive beam patterns.

Agency Response

The final rule does not adopt the proposed regulatory text that referred to an area of reduced intensity as being ''designed to be directed towards oncoming or preceding vehicles,'' and to the area of unreduced intensity as being directed ''in other directions.'' The proposed text implied that an area of reduced intensity must be directed towards oncoming or preceding vehicles and that an area of unreduced intensity must be directed towards unoccupied portions of the roadway. The final rule defines a new beam type, an ''adaptive driving beam,'' and adopts the definition of this in SAE J3069 MAR2021 as ''a long-range light beam for forward visibility, which automatically modifies portions of the projected light to reduce glare to traffic participants on an ongoing, dynamic basis.'' It requires that areas of reduced intensity conform to the Table XIX test points, areas of unreduced intensity conform to the Table XVIII test points and allows for a 1-degree transition zone between areas of reduced and unreduced intensity.

The final rule is intended to give manufacturers the flexibility to design systems that provide an area of reduced intensity not only to prevent glare to oncoming or preceding vehicles, but also in other situations in which a dimmed beam would be beneficial (such as towards retroreflective signs). Creating a new ''adaptive driving beam'' classification, distinct from the existing lower and upper beam definitions, accomplished this.[174] The intent behind these changes is to essentially, as Intertek suggested, provide that the system emit a lower beam, which is only augmented by adding light to the portions of the beam in which a preceding or oncoming vehicle is not detected, to the limit that when there are no preceding or coming vehicles [175] the emitted beam is an upper beam.

[174] This is also related to comments that recommended not specifying the upper beam minima in the area of unreduced intensity. The final rule retains the specification of the upper beam minima in the area of unreduced intensity, but now gives manufacturers the flexibility to use an area of reduced intensity on roadway not occupied by oncoming or preceding vehicles. This is discussed in more detail in Section VIII.D.4.

[175] Or other situations, such as the presence of retroreflective signs, in which it would be appropriate or optimal to provide less than a full upper beam.

Manufacturers will therefore have the flexibility to design the system to produce areas of reduced intensity and areas of unreduced intensity as they see fit, subject to several requirements or constraints:

- The adaptive driving beams must consist only of area(s) of reduced intensity, area(s) of unreduced intensity, and transition zone(s).
- When the ADB system is operating in manual mode, the system must provide only an upper beam or a lower beam. This was implicit in the proposed regulatory text but is made explicit in the final rule.
- When the ADB system is operating in automatic mode, the system must provide an adaptive driving beam. The adaptive driving beam is subject to several requirements, including the following:
  - The adaptive driving beam must be designed to conform to the track test requirements.
  - For speeds below 20 mph, the system must provide only lower beams (unless manually overridden).
  - In an area of reduced intensity, the adaptive driving beam must be designed to conform to the Table XIX (lower beam) photometry requirements.
  - In an area of unreduced intensity, the adaptive driving beam must be designed to conform to the Table XVIII (upper beam) photometry requirements.
  - A 1-degree transition zone is permitted between any areas of reduced and unreduced intensity.

These requirements are discussed in more detail in the following sections (except for the track test requirements, which were discussed in Section VIII.C).

In conducting its compliance testing, NHTSA will request information from the manufacturer on how to power and control the headlamp.[176] The lower and upper beams will be aimed prior to testing, and the aim will remain unchanged during testing. Testing of the lower and upper beams will be the same as it is currently. To test the adaptive driving beam, NHTSA will activate the headlamp in the goniometer according to the manufacturer's instructions to produce an adaptive driving beam pattern that is consistent with an ADB pattern that would appear in the real world with areas of reduced intensity, unreduced intensity, and/or transition zone(s). The ADB pattern generated will result in light directed toward all the test points in Tables XVIII and XIX. The issue then becomes which fixed test point falls within an area of reduced intensity, an area of unreduced intensity, or a transition zone. NHTSA will have manufacturers identify the portion(s) of the adaptive beam which are areas of reduced intensity and which are areas of unreduced intensity. The areas of reduced intensity must conform to the requirements for the test points in Table XIX, and the area of unreduced intensity must conform to the requirements for the test points in Table XVIII. Procedures for determining the transition for lower beams (similar to how the cutoff is determined, *i.e.,* a scan) can be used to determine whether the transition zone exceeds 1 degree. Appendix B provides an example of how this would work in practice.

Although NHTSA will rely on manufacturers to inform it on how to produce the beam—to some extent determining the precise contours of the beam—this will still adequately ensure both visibility and glare prevention. The adaptive driving beam may only consist of areas of reduced intensity conforming to Table XIX, areas of unreduced intensity conforming to Table XVIII, and/or transition zones between such areas. With respect to visibility, the beam must meet either the lower beam minima or the upper beam minima (other than in a transition zone). The driver will at a minimum always have the visibility provided by a traditional lower beam regardless of the size of the dimmed portion, up to and including a situation where the entire beam is an area of reduced intensity (*i.e.,* a lower beam).

This approach should also help ensure adequate glare minimization. First and most important, the system must be designed to conform to the track test requirements, which evaluate the adaptive driving beam in specific scenarios. Second, the laboratory testing requirements will ensure that any areas of reduced intensity (up to and including a pattern equivalent to a full lower beam) do not exceed the Table XIX (lower beam) maxima, and any areas of unreduced intensity (up to and including a pattern equivalent to a full upper beam), do not exceed the Table XVIII (upper beam) maxima.[177]

These modifications should address the concerns raised by commenters about which Table XVIII or XIX test points apply to various portions of the adaptive beam. The agency agreed with many of Ford's suggested revisions to the proposed regulatory text and is incorporating many of the suggestions into the final rule. The agency does not believe that this presents too many cases to test or for a manufacturer to certify. While it is true that an ADB system will be capable of generating many different adaptive driving beam patterns, it is reasonable to require that each beam pattern comply with the applicable test points. As with all the FMVSSs, these requirements would not require vehicle manufacturers to test every single case, or to test at all; they may certify their vehicles using other means. Manufacturers must use due care to ensure, however, that the system is designed to conform with the FMVSS requirements when tested by NHTSA when we use the test procedure specified in the FMVSS.

With respect to Zoox's comment regarding technological neutrality, the agency intends the requirements to be technology-neutral, and compatible with ADB systems that use bulbs and shutters, or LED arrays, as well as any sensing technology. The requirements do not assume that an adaptive beam is a static beam pattern. (As explained above, the ADB pattern is dynamic; the laboratory testing will evaluate snapshots of the dynamic ADB pattern while the dynamic aspects of ADB are tested using the track test). Although the areas of reduced and unreduced intensity will be subject to the longstanding lower and upper beam laboratory photometric requirements, manufacturers will still have the flexibility to design systems that provide a wide array of different beam patterns to accommodate not only other cars on the road, but also retroreflective signs among other things, and bicyclist and pedestrians.

3. Requirements for Area of Reduced Intensity

The NPRM applied the Table XIX lower beam photometric requirements, both minima and maxima, to areas of reduced intensity. This differed from SAE J3069, which specifies only the lower beam maxima in this area.

Comments

While Consumer Reports appeared to support requiring the lower beam minima in this area, and Intertek supported requiring both the lower beam maxima and minima, several commenters contended that if a laboratory test was required for the area of reduced intensity, it should specify the lower beam maxima (perhaps with some adjustments) but not the lower beam minima. (Some commenters argued that the maxima above 10

[176] This will include, as requested by Auto Innovators, calibration of any sensors required for ADB system performance in the laboratory prior to testing.

[177] We would expect manufacturers to design systems that avoid glare even in scenarios not included in the track test. A system that did not appropriately shade other vehicles, if not a non-compliance, could potentially be a safety-related defect.

degrees should not apply. This is discussed in Section VIII.D.6.)

Volkswagen, SAE, SL, GM, Koito, Mercedes, the Alliance, IIHS, AAA, Zoox, and Valeo commented that specifying the lower beam minima would limit the ability of ADB systems to reduce glare below current lower beam levels. The Alliance further commented that it would restrict hardware design, entail separate development programs for different markets, and add significant cost. IIHS commented that requiring the lower beam minima would effectively create a lower beam ''cutoff'' within the area of reduced intensity and mean that drivers of other vehicles below the horizontal axis of the ADB headlamps could experience excessive glare. IIHS and AAA stated that current lower beams produce high levels of glare in common situations such as cresting hills, driving on bumpy roads, or the higher headlamp mounting height of pickups and many SUVs, and that ADB systems have the ability to reduce glare below these levels if the lower beam minima are not specified.

Zoox suggested that market forces would ensure sufficient visibility because, in order to avoid customer complaints of lack of illumination, manufacturers are unlikely to provide ADB illumination below the current lower beam minima. SL commented that the NPRM disregarded the upper area of the cut-off line in this region.

Agency Response

The final rule adopts the proposed requirements for an area of reduced intensity, including that it meet the Table XIX minima. NHTSA believes requiring an area of reduced intensity to meet the lower beam minima is justified because the rule does not include any ''false positive'' tests, *i.e.,* tests to ensure that an ADB system does not mistakenly dim the beam in the absence of any oncoming or preceding vehicles. The sensitivity of the system is largely left to the manufacturer to design, provided it responds to the stimulus test fixtures in the track test and passes the photometry tests. If a manufacturer produces a very sensitive system that shades for things that are not actually other vehicles, a beam pattern that provides less visibility than a current lower beam would be less safe than the current standard. Requiring the lower beam minima be met in the area of reduced intensity ensures that the driver will always have a minimum amount of light providing adequate visibility.

NHTSA does recognize that it would likely be possible to revise the current lower-beam minima, as applied to ADB systems, to allow for reductions in intensity below the currently-required limits without risking safety. However, NHTSA does not have data, and no data were supplied, that would allow it to establish the minimum size and roadway scenario for an area of reduced intensity with less light below the cutoff. Without such data, NHTSA does not have a clear basis on which to revise or remove the current lower beam minima.

As some commenters pointed out, requiring the dimmed portion of the ADB beam to meet the lower-beam minima means that an ADB system might not be able to reduce glare below current levels in some situations. This would likely occur in situations, as AAA alludes to, on undulating roadways and hills where the ADB vehicle crests a hill and there is an oncoming or preceding vehicle in front of it, in which case the lower beam minima might coincide with that vehicle. In light of the concerns noted above, NHTSA believes that accepting some level of glare in such situations—which is already present with current lower beams—is a reasonable trade-off to ensure adequate visibility for the driver. This will result in disharmonization with the ECE regulations, which permit the area of reduced intensity to project intensities below the lower beam minima. However, this is justified for the reasons given above. Specifying the lower beam minima will result in a situation that is unchanged from present, in terms of both safety, costs, and disharmonization.

NHTSA recognizes that market forces are more likely to ensure adequate visibility than mitigate glare, thereby potentially obviating the need to specify any minima. As noted in the NPRM, ''a vehicle manufacturer's incentive, absent regulation, might be to provide forward illumination at the expense of glare prevention because the benefits of forward illumination are enjoyed by the vehicle owner.'' The agency believes such an argument has merit, and closely considered the matter. As more experience is gained with these systems the agency may consider modifying or eliminating this requirement. For now, however, given the importance of visibility, the agency will err on the side of caution and apply the lower beam minima to the dimmed portion of the beam.

Potential issues of glare due to headlamp mounting height on pickups and SUVs can be addressed with the on-vehicle aim of the headlamps, much as it is currently addressed.[178] Manufacturers might also be able to further minimize glare if they use on-vehicle dynamic aiming. In the past, NHTSA has explained that for headlamp systems capable of dynamically re-aiming the headlamps (for example, based on the steering angle), the laboratory photometry requirements ''must be met in the nominal position of the lower beam headlamp (*i.e.,* considering the location of the axis of reference to coincide with the longitudinal axis of the vehicle).'' [179] This means, for example, that an ADB system that dynamically re-aimed the headlamps downward when cresting a hill with an oncoming vehicle (which, in line with AAA's comments, is the prime concern motivating the request to not apply the lower beam minima) could effectively shift down the dimmed area so as not to glare the oncoming vehicle.

Although the final rule does not disregard the cut-off as suggested by SL, the final rule modified the right curve scenarios to consider the fact that the Table XIX (lower beam) photometry requirements permit greater illuminance on the right side than on the left side.

4. Requirements for Area of Unreduced Intensity

The NPRM applied the current Table XVIII upper beam photometric requirements (both the minima and the maxima) to the area of unreduced intensity. This differed from SAE J3069, which specifies the lower beam minima and does not specify any maxima.

Comments

Several commenters (GM, SL, ALNA, Koito, SAE, TSE, Auto Innovators, and Texas Instruments) asserted that NHTSA should specify the lower beam minima instead of the upper beam minima. SAE commented that SAE J3069 intentionally replaced the upper beam minima with lower beam minima to assure a performance comparable to the wider lower beam versus the narrower upper beam. SAE also stated that specifying the lower beam minima would harmonize with ADB systems already in use in other regions. Texas Instruments commented that while it might be appropriate to require mechanical shutter and low-resolution ADB systems to meet the lower beam minima, the proposal would negatively impact many of the potential safety

[178] *See* SAE J599 Lighting Inspection Code.

[179] Letter from NHTSA to Kiminori Hyodo, Koito Manufacturing Co., Ltd. (Feb. 10, 2006). *See also* 68 FR 7101 (Feb. 12, 2003) (discussing application of laboratory photometry requirements to adaptive frontal-lighting systems).

improvements enabled by high-resolution ABD systems, such as luminous intensity optimization on retroreflective street signs and differentially illuminating the face and body of a pedestrian. TSEI similarly commented that specifying the lower beam minima would provide a greater degree of design freedom, and also claimed that requiring the system to meet the upper beam minima in the area of unreduced intensity (in combination with the requirements for the area of reduced intensity) would create potentially insurmountable technical challenges because ADB systems require a transition zone between the area of reduced intensity and the area of unreduced intensity.

A few commenters (SAE, GM, and Koito) supported the proposal to specify the existing upper beam maxima in the area of unreduced intensity.[180] However, several commenters urged NHTSA to either not specify any maxima or, alternatively, to adopt the higher maximum allowed by the ECE. These commenters contended that adopting the higher maximum would lead to greater safety benefits than the proposed specification. Global commented that there are no safety reasons to specify the upper beam maxima in the absence of other road users. The Alliance commented that the safety benefits of ADB would be limited by not allowing ADB systems to exceed the current upper beam maxima, and recommended that, if NHTSA decides to specify a maximum, it should harmonize with the ECE maximum of 430,000 cd (215,000 per headlamp). It contended that, while glare is a concern, it is difficult to determine glare as a direct cause to crashes or fatalities, referring to past agency reports finding that evidence linking headlamp glare and crash risk is difficult to obtain, and noting that the percentage of accidents that could be at least partly related to headlamp glare is no more than 1%. Notwithstanding the many consumer complaints regarding glare noted by the agency, the Alliance stated that it was not aware of any agency action to investigate issues related to headlamp glare. On the other hand, the Alliance pointed out that in 2012, 70% of pedestrian fatalities occurred at night, and by 2016 this had increased to 75%. The Alliance also referred to the NPRM discussion that referenced a study from the Insurance Institute for Highway Safety finding that pedestrian deaths in dark conditions increased 56% from 2009 to 2016. Volkswagen supported the Alliance's comments and cited studies it said showed headlamp intensities exceeding the current FMVSS No. 108 upper beam maximum (last updated in 1978) would significantly increase visibility and therefore safety. Mercedes also encouraged NHTSA to adopt the ECE maximum because it could increase forward visibility by 40% compared to the FMVSS No. 108 maximum.

IIHS commented that, for properly-functioning ADB systems, an upper beam maximum was either not necessary or that the higher ECE maximum should apply. IIHS stated that the proposal would prevent ADB systems from realizing their full visibility-enhancing potential. They stated that if NHTSA is concerned that there are scenarios where ADB systems may not properly detect and shadow other vehicles, it would be preferable to include these in the set of dynamic tests rather than limit ADB output to the same level as manually-controlled upper beams. AAA commented that European specifications require camera recognition and reaction at distances of 400 meters (1,312 feet), and that if ADB systems are effective at this distance, the intensity limits could be increased to the ECE maximum. It suggested that additional criteria for raising the upper beam maximum should include proven ability to quickly adapt to changes in vehicle elevation, as result from driving on undulating roadways and hills.

Agency Response

The final rule follows the NPRM and specifies the existing upper beam minima, not the lower beam minima. Because ADB systems can detect other vehicles, the areas of the beam directed where other vehicles are not present should be an upper beam. Because the track test evaluates the ability of the ADB system to appropriately recognize and shade other vehicles, requiring the upper beam minima should not result in glare to other motorists.

However, NHTSA agrees with the comments about the possible safety-enhancing effects of allowing manufacturers to shade areas of the roadway in addition to those occupied by other vehicles (*e.g.,* retroreflective signs). The final rule therefore gives manufacturers the flexibility to design an ADB system that provides an area of reduced intensity to any area of the roadway, not just areas occupied by other vehicles (see Section VIII.D.2). This essentially gives manufacturers the flexibility to meet the lower beam minima instead of the upper beam minima for any part of the roadway it chooses, and more closely harmonizes with SAE J3069. Because we have modified the proposal to allow manufacturers the flexibility to provide an area of reduced intensity on parts of the roadway that are not occupied by other vehicles, they will have the ability to innovate and optimize luminous intensity for objects such as retroreflective signs and other roadway users. We also believe this will, in conjunction with the transition zone allowance, address the transition zone issue (see Section VIII.D.5). With respect to SAE's comment about the preferability of a wider lower beam, nothing in the final rule prevents this wider beam pattern in an area of unreduced intensity. The lower beam pattern extends to test points at 20L and 20R, whereas the upper beam test points only extend to 12L and 12R.

The final rule follows the NPRM in specifying the existing Table XVIII upper beam maximum for the area of unreduced intensity. NHTSA has decided not to adopt the higher ECE upper beam maximum. Table XVIII specifies a maximum at H–V of 75,000 cd per headlamp, or 150,000 cd for a headlighting system. The purpose of this maximum is to control glare that would occur if the upper beam is improperly activated (*i.e.,* when other vehicles are within 500 ft)[181] and to control glare to vehicles that are more than 500 ft away, which is the distance outside of which most States permit upper beam use.[182]

While NHTSA agrees with the commenters that brighter upper beams would lead to safety benefits in the form of increased visibility in the absence of other road users, NHTSA remains concerned about potential glare from brighter upper beams in situations in which an ADB system might not recognize and shade other vehicles. The final rule includes a track test that evaluates an ADB system's ability to recognize and shade other vehicles in a

[180] SAE appears to suggest this approach if NHTSA does not adopt a transition zone. As we discuss in Section VIII.D.5, the final rule adopts a transition zone.

[181] 43 FR 32416, 32417 (July 27, 1978) (final rule increasing upper beam headlamp intensity to 75,000 cd).

[182] 61 FR 54981, 54982 (Oct. 23, 1996) (denial of rulemaking petition to increase the upper beam maximum intensity to 140,000 cd). *See also* NPRM, p. 51779 n.75. Table XVIII also specifies an upper beam maximum at 4D–V. This regulates foreground light that affects a driver's ability to see objects far down the road. High levels of foreground illumination tend to draw a driver's attention away from the distant road scene to the foreground because the foreground light appears brighter than the road scene further away. In addition, high foreground intensities reduce the ability to see dimly illuminated objects further down the road. *See* 62 FR 31008, 31010 (June 6, 1997) (denial of petition for reconsideration). The magnitude of this maximum is based on the H–V maximum. Because we are not adjusting the H–V maximum we do not need to consider the 4D–V maximum.

variety of scenarios. The NPRM proposed an even greater variety of scenarios that the agency could test, but many commenters argued that the proposed testing was onerous and impracticable. Pursuant to these comments, the final rule significantly streamlines the scenarios that NHTSA may test. While the final rule includes a sufficient variety of track test scenarios to reasonably ensure that an ADB system does not glare other motorists, the track test does not include—nor could NHTSA feasibly test—every scenario that an ADB system might encounter in the real world. Maintaining the current upper beam maximum as a backstop to the dynamic tests will help assure that if an ADB system fails to properly detect and dim lighting towards another vehicle (whether due to topography, sudden appearance, or any other situation that leads the ADB system to fail to recognize and shade another vehicle), the system will not produce glare beyond what a current FMVSS 108-compliant upper beam would.

If the final rule were to adopt the higher ECE maximum, an expansion of the track test scenarios might be warranted to ensure that these brighter beam patterns do not glare other motorists. There are at least two ways the agency might consider expanding the track test scenarios. First, testing the ADB system for glare beyond the 220 m proposed and included in this final rule. As explained in the NPRM, testing out to 220 m is appropriate because at this distance, the glare from an upper beam at the current implied system maximum of 150,000 cd would be 3.1 lux, which is equivalent to the glare cutoff implied by many State upper beam-use laws.[183] Adopting the ECE system maximum of 430,000 cd could justify testing out to 372 m (the distance at which 430,000 cd equals 3.1 lx.). This is consistent with AAA's suggestion that the upper beam maximum could be increased if NHTSA dynamically tested headlamp illuminance at ranges of up to 400 meters. Second, NHTSA might consider additional test scenarios related to other concerns that might be associated with brighter beam patterns. For example, as AAA suggested, expanding the track test scenarios might be appropriate to ensure that the brighter upper beam does not glare other road users, for example, by testing the ability of the system to quickly adapt to changes in vehicle elevation.

NHTSA, however, is not currently prepared to expand the track test scenarios in this way. In order to extend the distances at which we evaluate glare in the track test, the agency would likely want to consider, among other things, the appropriate glare limits at those distances and whether the existing test procedures would need to be modified to accommodate greater testing distances (for example, the availability of test tracks with those distances).[184] Further research might also include the development of additional test scenarios appropriate for higher-intensity headlamps.[185] In short, NHTSA is not currently prepared to make any further changes to the proposal related to a brighter upper beam. The goal of this rulemaking is to extend the existing photometry requirements to enable the safe introduction of ADB systems, and to expeditiously finalize this rule to enable deployment of ADB systems.

Because NHTSA is not prepared to extend the test requirements to ensure that ADB systems with a higher maximum intensity would operate safely, increasing the photometric maximum, without also adding such additional test requirements, would result in a situation where glare past 220 m was not regulated. Some commenters stated that there is insufficient data to conclude that the disbenefits from glare at these distances outweigh the benefits from greater visibility and pointed to the increase in pedestrian fatalities. NHTSA agrees that evidence linking headlamp glare and crash risk is difficult to obtain, that there are benefits to increased visibility, and that there has been an increase in pedestrian fatalities. However, we note that NHTSA has previously declined to increase the upper beam maximum beyond 150,000 cd to the ECE maximum because of a lack of data on whether any improvements would outweigh any associated disbenefits associated with potential increases in glare.[186] We are not aware of any compelling new research on the issue, and the comments did not identify any such research. Accordingly, we have no reason to revise our previous conclusions that the current upper beam maximum appropriately balances the benefits of visibility and the disbenefits of glare. In short, NHTSA is presently unable to conclude that more than doubling the maximum permitted intensity from 75,000 cd to 215,000 cd (per headlamp) would provide a significant enough advantage to warrant risking the potential negative externalities of glare.[187] Nevertheless, ADB systems will still provide increased visibility outside of the area of reduced intensity, as well as increase upper beam use, which will help prevent crashes.

5. Transition Zone

The NPRM applied the Table XIX lower beam photometric requirements to areas of reduced intensity and the Table XVIII upper beam photometric requirements to areas of unreduced intensity. The NPRM did not provide for a transition zone between areas of reduced and unreduced intensity.

Comments

Many commenters (SAE, ALNA, the Alliance, Global, Valeo, Honda, SL, Stanley, Koito, Mercedes, Volkswagen, Toyota, and TSEI) pointed out that the proposed photometric requirements could not be met without allowing for a transition zone between the areas of reduced and unreduced luminous intensity. Mercedes, Volkswagen, Toyota, Auto Innovators, and TSEI specifically agreed with SAE's comments on this issue.

SAE commented that a transition zone can only be minimized, not eliminated, and because the transition between reduced and unreduced areas does not comply with either upper or lower beam photometry it must be eliminated in the photometric testing. Without a transition zone, an ADB system would

[183] *See* NPRM n. 75 and accompanying text.

[184] The research on which the track test requirements are based developed those requirements and test procedures only for testing glare—commensurate with the current FMVSS No. 108-compliant upper beams—out to 220 m, not at the greater distances that would be necessary with ECE-approved upper beams.

[185] NHTSA's earlier research did include some testing related to ADB performance on hills. However, such scenarios were not proposed because of relatively poor ADB system performance in those trials. *See* 2105 ADB Test Report at p. 102.

[186] Most recently, in 2009 NHTSA denied a petition for rulemaking from The Groupe de Travail ''Bruxelles 1952'' and SAE to amend FMVSS No. 108 to, among other things, increase the upper beam maximum to 140,000 cd. 74 FR 42639 (Aug. 24, 2009). NHTSA declined to increase the maximum because of a lack of data to allay the concern that the benefits due to increased visibility might be outweighed by the disbenefits from increased glare. Similarly, when NHTSA increased the (implied) system-level upper beam maximum from 75,000 to 150,000 in 1978, it referred to contemporaneous research ''demonstrating that an increase in photometrics to a maximum of 150,000 cp will enhance seeing ability without any significant increase in glare form properly aimed headlights, but that photometric output exceeding 150,000 cp results in only a marginal increase in visibility with an increase in glare.'' 43 FR 32416 (July 27, 1978). *See also* 61 FR 54981 (Oct. 23, 1996) (denial of rulemaking petition to increase upper beam system-level maximum to 140,000 cd) (citing the 1978 rulemaking notice and stating that ''the agency has done no similar research work on upper beam headlamps since then nor is it aware of other safety research in this area'').

[187] While we agree with the Alliance that adopting the ECE maximum would enhance harmonization, we still believe that there is a headlamp harmonization window. *See* 61 FR 54981.

be expected to modify its illumination from very low light levels to above 40,000 cd over a zero angle, which is physically impossible. SAE gave an example of an area of reduced intensity around the upper beam minimum at 1U, 3L, with the edge of the area of reduced intensity to the left of 3L, and the area of unreduced intensity at 3L. SAE pointed out that in this example, the upper beam minimum of 5,000 cd and lower beam maximum of 700 cd (at 1.5 U, 1.5 L to L) are impossible to coincidentally satisfy, even with the 0.25 degree re-aim allowance in FMVSS No. 108, because the transition from the unreduced intensity to the reduced intensity is much larger than 0.25 degrees. To illustrate this, SAE provided a horizontal scan through an ADB headlamp beam pattern showing a transition zone of greater than 1 degree for the minimum at (1U, 3L) to be met. SAE noted that similar issues will occur in other parts of the beam pattern. Toyota similarly commented that the absence of a transition zone leads to a distinctive vertical line between the area of reduced intensity and the area of unreduced intensity. It has been Toyota's experience that a sharp cutoff distracts drivers and leads to customer complaints that the sharp cutoff reduces visibility over bumps, dips, and twisty roads. Toyota also noted that ADB systems it sells in other markets include a transition zone and it has received positive consumer feedback.

There were a variety of comments related to how the agency might account for a transition zone in the final rule. SAE suggested that the transition zone be ''disregarded.'' SAE recommended several different alternative modifications to the proposal if final rule were not to disregard the transition zone. These included specifying only the lower beam maximum values in the area of reduced intensity, and not minimum values; excluding the boundaries of 10U to 90U from the lower beam maxima requirements; specifying the lower beam minima instead of the upper beam minima in the area of unreduced intensity; and modifying the regulatory text by adding ''fully'' before the text describing the area of reduced intensity. SAE also recommended reorganizing the regulatory text of S9.4.1.6.6–.7.[188] Some of SAE's suggestions were echoed by other commenters. Global suggested that the final rule should allow for a mid-beam independent of the lower or upper beam. SL suggested that the manufacturer be permitted to set the boundary area or that the final rule should specify light intensity criteria for the transition zone.

Agency Response

NHTSA agrees with commenters that the final rule should allow for a transition zone between areas of reduced and unreduced intensity. The final rule allows for a 1-degree transition zone between an area of reduced intensity and an area of unreduced intensity, within which the Table XVIII and XIX requirements will not apply, except that the maximum at H–V in Table XVIII as specified in Table II for the specific headlamp unit and aiming method may not be exceeded at any point in a transition zone. Manufacturers essentially will be free to determine the areas of reduced and unreduced intensity and, therefore, the boundaries of the transition zone. In addition, the vehicle will still need to pass the track test.

In considering how to account for a transition zone NHTSA consulted photometric requirements specified in other technical standards and comparable foreign regulations. Because SAE J3069 does not explicitly define or identify a transition zone,[189] the agency researched references to aiming tolerances in other SAE-recommended practices for headlamps. J2838 Full Adaptive Forward Lighting Systems specifies aiming procedures for adaptive lighting systems. Section 6.5 includes provisions for adjusting vertical and horizontal aim, including expected aiming tolerances, and provides for a +/− 0.5 degree (or 1 full degree) vertical tolerance to transition between the lower beam zones and the upper beam zones. The J2838 procedures, though not specifically for a transition zone, suggest that a similar 1 degree transition between areas of reduced and unreduced intensity in an adaptive driving beam pattern would be appropriate.

This is consistent with the ECE requirements for adaptive front lighting systems. NHTSA could not find reference to a direct specification of a transition zone in either ECE R.48 or R.123. Section 6.22.6.3 of R.48 does, however, specify a +/− 0.5 degree tolerance for the cutoff of a lower beam. Similarly, Section 6.3.5 of R.123 specifies a +/− 0.5 degree vertical and +/− 1 degree horizontal tolerance for aiming of systems prior to testing to ensure photometric requirements are met for ADB systems. Annex 8 of R.123 cites the same cutoff and aiming provisions cited in SAE J2838 mentioned above.

A 1 degree transition should resolve the concerns of and be consistent with the information presented by the commenters. SAE raised the example of an adaptive driving beam pattern with an area of reduced intensity with vertical cutoffs around 3L and 6L.[190] As SAE pointed out, there is an upper beam minimum of 5,000 cd at 1U 3L and a lower beam maximum of 700 cd from 1U–1.5 L to L. As SAE also correctly pointed out, it would impossible for an adaptive driving beam with an area of reduced intensity with a vertical cutoff around 3L to simultaneously satisfy both the upper beam minimum and the lower beam maximum without a transition zone. A 1 degree transition zone resolves this issue and gives the system room to gradually modify the intensity. The data presented by SAE[191] shows that a real-world ADB system could comply with the final requirements: The upper beam minimum at 1U 3L would fall within the transition zone, and the area of reduced intensity would comply with the lower beam maximum. SAE's example also indicates that 1 degree is sufficient for a cutoff between an area of unreduced intensity and an area of reduced intensity because it shows that it takes the beam less than 1 degree to transition from intensities characteristic of an upper beam (*e.g.,* 5,000 cd) to intensities characteristic of a lower beam (*e.g.,* 700 cd). In addition to the transition zone, the existing provision (in S14.2.5.5) for a 0.25 degree re-aim in any direction at any test point would also apply. NHTSA believes that this specification for a transition zone, together with allowing manufacturers the flexibility to project an area of reduced intensity on areas of the roadway other than oncoming and preceding vehicles, also resolves the other concerns raised by the commenters.

6. Veiling Glare

The NPRM extended the Table XIX lower beam photometric requirements to areas of reduced intensity. These include a maximum of 125 cd in the region of 10U to 90U and 90L to 90R.

[188] SAE stated that these recommendations are also intended to address the veiling glare issue. *See* Section VIII.D.6, Veiling Glare.

[189] SAE J3069 MAR2021 added a definition for the transition zone (''The area in the ADB where the unreduced intensity transitions to the non-glare zone''). It states that the prior version assumed the existence of a transition zone and that this definition was added for clarity. The transition zone allowed in this final rule is similar in concept, but is more specific in order to provide a more objective test procedure for the purposes of compliance testing.

[190] SAE comment (NHTSA–2018–0090–0167), p. 6 (Fig. 2).

[191] *Id.*

The purpose of these test points controlling veiling glare is to limit back-scatter in environmental conditions such as fog, mist, and snow.

Comments

Some commenters opposed applying the veiling glare limits to the area of reduced intensity. ALNA commented that these maxima are not necessary because the increased safety provided by an ADB system justifies less strict self-glare (back-scatter) requirements. SAE commented that if the final rule did not include a transition zone, the area from 10U to 90 U should be excluded from photometric testing because light from areas of unreduced intensity can fall into the area of reduced intensity, exceeding the veiling glare requirement in the 10U to 90U zone. GM commented similarly.

Agency Response

The concerns the commenters expressed about the veiling glare limits are addressed by two of the modifications to the proposal. First, as explained in the preceding section, in response to the comments the final rule added a transition zone between areas of reduced and unreduced intensity. Second, the final rule modifies the proposal to give manufacturers the flexibility, in designing the adaptive beam, to illuminate portions of the roadway other than those occupied by oncoming or preceding vehicles with either an area of reduced intensity or area of unreduced intensity. An adaptive beam may therefore provide an area of unreduced intensity that covers the entirety of the 10U to 90U region, for which the Table XVIII upper beam requirements do not contain any test points. NHTSA believes that these modifications resolve the commenters' concerns about veiling glare exceedances.[192]

E. Minimum Activation Speed

The NPRM proposed that an ADB system must produce a lower beam below 25 mph, explaining that since the primary purpose of ADB is to provide additional light at relatively higher speeds, it may be likely that the potential disbenefits from glare outweigh the potential benefits from additional illumination at lower speeds.

Comments

One commenter, Consumer Reports, supported requiring the lower beam as a default any time the vehicle is traveling at a speed below 25 mph in order to limit glare in circumstances where upper beams are not intended for use.

Other commenters, however, disagreed with the proposal. Toyota, Honda, and Ford stated that there should be no speed restriction on ADB activation. SAE, Koito, Valeo, Zoox, and Volkswagen asserted that ADB operation should not be restricted to 25 mph and above. Texas Instruments and Harley Davidson commented that ADB activation below 25 mph should be allowed in certain circumstances. The commenters made a variety of arguments in support of these positions.

Some commenters suggested that the benefits of allowing ADB at lower speeds outweighed any potential glare disbenefits. SAE stated that the potential disbenefits from glare would be mitigated as ADB systems become more advanced and able to recognize and respond appropriately in low speed-environments. Honda commented that there is a safety need for visibility at lower speeds and calculated that, based on 2011 to 2016 GES data for pedestrian accidents, approximately 40% of nighttime accidents occur when the vehicle speed is estimated to be under 25 mph (when the vehicle speed can be estimated). Toyota commented that there are not any data that show a safety need to regulate the activation speed.

SAE commented that there is no single driving speed where the benefits of ADB disappear to the point where automatic deactivation should be required. They stated that changes in the driving environment are not necessarily correlated with vehicle speed and it is the changes in driving environment where the driver most benefits from an adaptive driving beam. (Honda had a similar comment.) SAE asserted that sudden deprivation of light based only on a specific speed threshold presents potential safety risks and is contrary to the purpose of ADB. Toyota stated that there was customer demand for ADB to be operable in urban areas and in residential areas where visibility can be extremely low and the speed limit is typically 25 mph, and believed it can provide safety benefits, especially because there is a higher probability for drivers to interact with pedestrians or cyclists in these areas. Honda commented that ADB should provide active forward illumination under certain environmental lighting conditions to address safety needs.

Valeo, Toyota, and Ford suggested that there should be no speed limitation because FMVSS No. 108 contains no such speed restriction for semiautomatic beam switching devices. SAE, Valeo, and Ford similarly stated that FMVSS No. 108 does not contain a speed threshold for manual switching between lower and upper beams. SAE commented that a deactivation threshold speed of 25 mph may also encourage drivers to exceed this speed where it is the posted limit or when road conditions warrant lower speeds in order to maintain activation of the adaptive driving beam. SAE also commented that if drivers want to override ADB operation they can do so manually.

Zoox recommended that the agency consider reducing the minimum speed to 20 mph so ADB use would be available for lower-speed city use, especially to see pedestrians and cyclists on the roadway shoulder. Texas Instruments commented that high-resolution ADB systems can change this perceived disbenefit/benefit relationship, and that NHTSA should exempt high-resolution systems to allow innovative uses of hazard marking applications in urban settings.

Harley Davidson commented that activation of the adaptive beam below 25 mph should be allowed on motorcycles because they lean during cornering and use the upper beam for more than just additional light down the road. They claim that the beam pattern projected from a leaning motorcycle differs significantly from the beam pattern of a four-wheel vehicle, and that this is particularly pronounced during low-speed maneuvering where the vehicle dynamics required to maneuver through a 90-degree intersection often results in a more severe lean of the vehicle than required during higher speed turns with a larger turn radius. They claimed that when traffic conditions allow, motorcycle riders use the upper beam during these low-speed maneuvers to take advantage of the enhanced illumination in the direction the rider is looking. Harley Davidson further contended that motorcycle cornering lighting systems have been developed to enhance the lower beam illumination during vehicle leaning, and that ADB systems are potentially an enhancement to current systems, which are can operate at all speeds.

Agency Response

After considering the comments, NHTSA has decided to retain a minimum activation speed, but has

[192] SAE J3069 MAR2021 excludes the boundaries of 10U to 90U and 90L to 90R from the requirement in that practice that the non-glare zone (area of reduced intensity) meet the lower beam maximum values specified in SAE J1383. The modifications to the proposal are consistent with this.

lowered it to 20 mph to give greater flexibility to manufacturers wishing to provide a hysteresis in the system design. (Hysteresis is the difference in the activation or deactivation speed of the system based on whether the vehicle is increasing or decreasing speed.)

NHTSA believes that lower beams generally provide adequate visibility at speeds below 25 mph, given typical driver reaction time and vehicle stopping distances. This is consistent with the information that Toyota provided in its petition for rulemaking, which indicated that lower beams provide sufficient illumination up to about 30 mph (or about 160 ft).[193] This is also consistent with many of the ADB systems NHTSA tested, which had activation speeds between 20 mph and 40 mph and deactivation speeds from 15 mph to 25 mph.[194] A more recent model NHTSA tested (a MY 2018 Lexus NX built for the European market) had three ADB modes, and the lowest activation speed was 9 mph (with a deactivation speed of 7.5 mph).

A 20 mph activation speed is also supported by research on glare and driving performance. In 2008 NHTSA published a summary of this research and found that in areas with high ambient light levels such as city downtown areas, lower-beam headlamps provide sufficient visibility because driving speeds are lower in urban areas (*i.e.,* under 30–40 mph) and because ambient light levels (from street lighting or other sources) are usually higher; the study also noted that lower beam intensities might even be able to be reduced in these areas to reduce glare to other drivers without strongly affecting forward visibility.[195] This is also consistent with NHTSA's data on nighttime crashes involving pedestrians and cyclists.

Even if increased illumination at speeds under 20 mph were to result in incremental benefits,[196] omitting a minimum activation speed could require expanding the dynamic track test scenarios to evaluate ADB performance in the types of environments (*e.g.,* urban) and situations (*e.g.,* intersections) associated with these lower speeds. This is particularly important because the early ADB systems tested were not able to pass low-speed scenarios such as intersection scenarios.[197] While it is likely true that the capabilities of ADB systems have advanced since then—including but not limited to the development of high-resolution systems—that does not obviate the need for testing. However, the agency has not yet proposed or fully developed the appropriate test scenarios to evaluate ADB performance in these types of environments and speeds. To do so, NHTSA would have to consider a number of factors, such as the relevant scenarios for testing. Because such test scenarios have yet to be developed, the agency is currently unable to test whether ADB systems would create glare in those situations. Development of such test scenarios would take additional time and resources. In the interests of facilitating ADB deployment—especially in situations (*i.e.,* at speeds over 20 mph) at which it will provide the most benefit—NHTSA believes it is expedient to finalize a rule with a minimum activation speed instead of developing such additional test scenarios.

Because NHTSA is not extending the testing scenarios to include typical low speed/urban environment scenarios, allowing ADB activation at these lower speeds would allow glare in these situations to be essentially unregulated. A few commenters suggested that the likely benefits from enhanced visibility in these situations outweighed the potential disbenefits from glare, or that ADB systems would be able to mitigate any potential disbenefits from glare at lower speeds. However, in light of the studies indicating that lower beams generally provide adequate visibility at speeds under 25 mph and NHTSA's testing showing that ADB systems may not yet reliably adapt to lower-speed scenarios, the agency is not yet confident that any possible incremental benefits to increased illumination (above present lower beam levels) below 20 mph would be likely to offset the possible disbenefits due to glare.[198]

If a driver desires additional illumination at speeds under 20 mph, the driver can manually switch to the upper beam mode. This balances the concerns of glare and visibility better than (as suggested in the comments) allowing activation of the adaptive beam below 20 mph and relying on the driver to manually override the ADB and activate the lower beam if that would be more appropriate (and the ADB system does not automatically switch). This is both because such situations will be relatively infrequent and because glare is a negative externality[199]—that is, the driver has more incentive to switch to upper beam mode to obtain more visibility in the relatively rare situations in which it is needed at lower speeds than to override the adaptive beam and switch to lower beam mode to avoid glaring others. Commenters did not provide data supporting their contention that specifying a minimum activation speed will encourage drivers to exceed the minimum activation speed in order to maintain ADB operation; drivers that recognize they lack adequate visibility can switch to upper beam mode. The agency expects this to be more likely than a driver increasing speed when they feel that the headlamps are not providing enough visibility.

NHTSA has decided not to allow a lower activation speed for motorcycles. Riders are provided a manual switch that activates the upper beam in situations where the rider recognizes the need for additional lighting. As such, the factors to consider for motorcycles are the same as those for other motor vehicles discussed above.

F. Operator Controls, Indicators, Malfunction Detection, and Operating Instructions

The NPRM included a variety of system requirements for ADB systems that were either extensions of existing requirements for semiautomatic beam switching devices or new requirements that would apply only to ADB systems. These included requirements for controls, telltales, and malfunction detection. Manufacturers would be free to devise supplemental telltales as long

[193] Toyota rulemaking petition, Appendix C. Consumer Reports, in its comment, estimated a longer lower beam seeing distance (300 ft) but still supported the proposed minimum activation speed.

[194] 2015 ADB Test Report, p. 91.

[195] DOT HS 811 043 (2008) at I–9 (citing and discussing research).

[196] *See id.,* p. I–9 (''Modifications to low beam patterns have been suggested and demonstrated to provide incremental benefits in terms of visibility, but light levels comparable to those from typical high beam headlamps appear to be desirable in terms of forward lighting, particularly for faster driving speeds. Yet these same light levels would almost certainly be undesirable by drivers facing them in nighttime driving situations.'').

[197] *See* 2015 ADB Test Report, p. 172 (''All of the ADB systems produced considerably more glare in intersection scenarios than was seen with lower beam mode.'').

[198] While there are no speed limitations in the current requirements for semiautomatic beam switching devices (which date to the 1960s), we believe that a minimum speed is justified for ADB systems for the reasons given above. Such a requirement may or may not also be appropriate for conventional semiautomatic beam switching devices, but such a requirement is out of the scope of this rulemaking, which is focused on ADB systems. However, we also note that ADB systems differ from conventional semiautomatic beam switching devices because ADB systems provide more illumination than a lower beam. We similarly note that the fact that there are no current speed limitations on manual upper beam use is not relevant, because ADB is automatic, not manual.

[199] A negative externality occurs when one party's actions impose uncompensated costs on another party. Glare is a negative externality because motorists exposed to glare are uncompensated for the disability or discomfort they experience.

as they did not impair the required elements.

The NPRM proposed extending existing semiautomatic beam switching device requirements for manual override, fail-safe operation,[200] and an automatic referred dimming indicator to apply both to conventional semiautomatic beam switching devices (classified in the proposed regulatory text as ''Option 1'' systems) and adaptive driving beam systems (to as ''Option 2'' systems). With respect to the manual override requirements, the proposal extended the current requirement that a semiautomatic beam switching device include a convenient means for the driver to switch beams. With respect to the automatic dimming indicator requirement, the proposal followed the approach taken in SAE J3069.[201] The NPRM proposed requiring a telltale informing the driver when the ADB system is activated.[202] The agency tentatively decided against following the approach of ECE Regulation 48, which requires the upper beam telltale be used to indicate ADB activation, because the NPRM did not classify the adaptive driving beam as an upper beam. The NPRM also did not propose requiring a telltale indicating an enabled ADB system is projecting an adaptive driving beam because providing the driver with a visual indication of the type of beam an ADB system is providing is not necessary for safe driving and could distract the driver. For similar reasons, the NPRM also proposed revising the existing upper beam indicator requirement in S9.5 to state that the upper beam indicator need not activate when the ADB system is activated.

NHTSA also proposed adopting additional requirements with no analogs in the current semiautomatic beam switching device requirements. The NPRM proposed that the ADB system must be capable of detecting system malfunctions (including but not limited to sensor obstruction); notify the driver of a fault or malfunction; and disable the system until the fault is corrected. Most of these are also specified in SAE J3069.

NHTSA also identified and sought comment on a requirement in Table I–a that might affect design choices for the headlamp and/or ADB controls. This requirement states the ''wiring harness or connector assembly of each headlighting system must be designed so that only those light sources intended for meeting lower beam photometrics are energized when the beam selector switch is in the lower beam position, and that only those light sources intended for meeting upper beam photometrics are energized when the beam selector switch is in the upper beam position, except for certain systems listed in Table II.'' This could mean that the headlamp and ADB controls could not be designed so the ADB system is activated when the beam selector switch is in the lower beam position, because the adaptive driving beam might utilize upper beam light sources, which would violate Table I-a because upper beam light sources would be activated when the beam selector switch is in the lower beam position.

Comments

NHTSA received several comments on the manual override requirements. The United Drive-In Theatre Owners Association and a number of drive-in theatre owner/operators asked that ADB systems be required to provide manual deactivation. Many of these commenters expressed concern that ADB systems could interfere with the enjoyment of drive-in movies. Consumer Reports also recommended applying the manual override requirement to ADB systems. One commenter (Victor Hunt) suggested requiring a warning to the driver when the ADB system has been manually overridden. Ford and Zoox suggested modifying the manual override regulatory text. Both commenters noted that under the current standard, when only lower beams and upper beams are provided, switching to ''the opposite beam'' is clear since there are only two options. However, when ADB is additionally provided it becomes less clear, because ADB essentially introduces a third beam. To address this, Ford recommended deleting the reference to the ''opposite'' beam in S9.4.1.2. Zoox recommended that this requirement apply only to systems certified to S9.4.1.5.The proposed fail-safe requirements (which mirrored the current regulatory text) required simply that a failure of the automatic control portion of the device must not result in the loss of manual operation of both upper and lower beams. Consumer Reports supported applying the existing requirements to ADB systems. Global and Subaru recommended that the system should fail-safe to the upper beam mode, while Zoox suggested requiring the system to default to a lower beam until the fault is corrected.

Global and AAA commented on the wiring harness requirement. Global stated that this might adversely affect design choices because it could mean that the ADB system may not be activated when the beam selector switch is in the lower beam position. To address this, Global recommended adding an exception for ADB systems to Table I–a. Global alternatively recommended that there could be three operational modes that a driver could choose: Lower beam, upper beam, and adaptive driving beam. AAA recommended amending Table I–a to account for distributed control modules and recommended amending the regulatory text so that the current language applies to distinct light sources, which by design operate independently, and adding additional language that the requirement is not applicable to headlamp beam systems that are controlled at the headlamp component level.

Ford supported not requiring the upper beam indicator to be activated when the ADB system is activated because Ford believed it would be distracting for driver, is unnecessary because ADB is designed not to glare, and harmonizes with SAE and Canada. Consumer Reports agreed with extending the existing automatic dimming indicator requirements to ADB systems and agreed that an indicator for the type of beam ADB is providing or the upper beam indicator should not be required. AAA also supported the proposed requirements for telltale indicators and supported the focus on reducing driver distraction and encouraged that additional indicators be designed so as not to contribute to driver distraction.

Consumer Reports agreed with the additional operational requirements in FMVSS No. 108 for ADB systems to detect system malfunctions (including sensor obstruction), notify the driver of a fault or malfunction, and automatically disable the system until any detected fault is corrected. Subaru recommended that S9.4.1.6.2 be amended to clarify that the ADB disablement requirement is only applicable for non-mechanical failures because, if a mechanical portion of the ADB system fails, the fault will not be able to be corrected because the mechanism will be unable to function mechanically.

Zoox suggested edits to the regulatory text, commenting that S9.4.1.3, S9.4.1.6.1 and S9.4.1.6.2 are very similar and may be duplicative. It recommended that a system certified to

[200] The regulatory text in FMVSS No. 108 has long used the unhyphenated ''fail safe.'' To maintain continuity, this final rule maintains that spelling in the regulatory text.

[201] SAE J3069 S6.8 and discussion at p. 2.

[202] We note that the automatic dimming indicator (indicating that the semiautomatic beam switching device is controlling the headlamps automatically) is different than the upper beam indicator (indicating that the upper beams are activated).

S9.4.1.5 must meet S9.4.1.3 for fail-safe operation, while a system certified to S9.4.1.6 must meet S9.4.1.6.1 and .2 for fail-safe operation. Further, instead of using ''shall work in manual mode'' in S9.4.1.6.2, Zoox suggested the following alternatives to accommodate both human and AI drivers: ''if a manual mode is provided, the lighting system shall work in manual mode. . .'' or ''the lighting system shall permit control of the beam(s) by the driver until the fault is corrected.''

Brent Peterson commented that upper beam light often creates detrimental back scatter under certain weather conditions (*e.g.,* fog or rain) and that the driver may not know how to respond.

Agency Response

NHTSA agrees that a manual override is necessary and, as proposed, is extending the manual override requirements to ADB systems.

The final rule does not require a specific warning when the driver chooses to switch the beam from the one provided by the ADB system. Because switching from the beam provided is an action initiated by the driver, a warning seems unnecessary because the driver would presumably know the action was initialized and the required automatic dimming indicator would indicate that the ADB system is no longer active. The final rule does not prohibit such a warning, provided the warning does not interfere with the functionality of the upper beam indicator.

NHTSA agrees with Ford and Zoox's suggested changes to the manual override requirements. The regulatory text incorporates Ford's recommended language (''The device must include a means convenient to the driver for switching the beam from the one provided.'') The agency believes this language provides sufficient flexibility for switch design while ensuring that the driver is provided control over beam switching for situations where the ADB system does not provide what the driver needs for visibility and glare prevention. NHTSA is also similarly amending the definition of ''semiautomatic beam switching device'' to reflect the fact that the final rule adopts ''adaptive driving beam'' as a third type of beam, and have amended that definition to clarify that when a semiautomatic beam switching device—whether or not an ADB system (*i.e.,* certified to either Option 1 or Option 2)—is in manual mode, the driver may obtain either the lower beam or upper beam.[203]

The final rule does not adopt the commenters' suggested changes to the fail-safe requirements but gives the manufacturer the flexibility to determine whether the ADB system defaults to the lower or upper beam in the event of an ADB system failure. Requiring an ADB system to default to an upper beam would not ensure that other roadway users are not glared; if, however, the ADB system were required to default to the lower beam, visibility could be diminished. Because the appropriate beam depends on a variety of situation-specific factors (*e.g.,* presence of other roadway users, the speed of the ADB vehicle, overall visibility)—reflected in the conflicting comments on what the appropriate fail-safe should be—NHTSA is giving manufacturers the flexibility to determine the appropriate system response.

NHTSA has adopted Global's suggestion and added to Table I–a an exception for ADB systems. The simultaneous activation of a full lower beam and a full upper beam will continue to be prohibited for ADB systems [204] (except momentarily in certain situations and except for certain systems listed in Table II [205]). The final rule does not adopt AAA's suggestion to account for distributed control modules because the current language is sufficiently clear to apply to both traditional wiring as well as serial communication between the vehicle and the headlamps. For example, with respect to powering the headlamp, S14.2.5.4 specifies that headlamps are tested at 12.8 V–DC as measured at the terminals of the lamp. This provision applies whether the terminals of the lamp are also the terminals of the light sources or the headlamp distributes this power to the appropriate light sources (whether integral beam headlamp sources or replaceable light sources). In essence, the wiring harness or connector assembly requirements listed in Table I–a and Table I–c are the same whether they apply to the basic vehicle wiring harness, or to the internal wiring within the headlamp as instructed by the ADB system through a serial line.

The final rule adopts the proposed telltale and malfunction provisions. With respect to the telltale requirements, we have clarified the proposal by requiring that the driver be provided with a visible warning that an ADB system malfunction exists. With respect to the malfunction provisions, the final rule does not adopt Subaru's suggested changes to the malfunction requirements. If the ADB system is not able to operate safely in automatic mode due to a malfunction, the automatic mode should be deactivated, regardless of whether the malfunction is mechanical. We have modified the proposed regulatory text to make clear that the system is not required to be deactivated if the malfunction does not prevent the system from operating in automatic mode safely and in conformance with the requirements applicable to such systems. The proposal would have required that, in the event of a malfunction, the ADB system must be ''disabled.'' However, in order to be less design restrictive, the final regulatory text simply requires that the headlighting system must operate in manual mode in the event of such a malfunction.

In response to Zoox's comment regarding editorial changes to S9.4.1.3, S9.4.1.6.1, and S.9.4.1.6.2, the agency does not believe these provisions are duplicative. The longstanding requirements for semiautomatic beam switching devices at S9.4.1.3 requires that a failure of the automatic control portion of the device must not result in the loss of manual operation and control of both upper and lower beams; neither S9.4.1.6.1 nor S9.4.1.6.2 clearly requires this. The final rule also does not adopt Zoox's suggested edits regarding fully autonomous vehicles. The appropriate fail-safe requirements in the event that a fully automatic (with no manual controls) ADB system fails raises a variety of issues that are outside the scope of this rulemaking.

NHTSA agrees that upper beams may cause backscatter under certain weather conditions but does not believe this merits regulatory requirements for dealing with backscatter. The agency encourages manufacturers to provide, as part of the required operating instructions, information or instructions to the vehicle operator explaining the conditions in which an upper beam or an adaptive beam may or may not be optimal or appropriate.

[203] The term ''manual'' in this definition, as well as in S9.4.1.2 and S9.4.1.3, has a general meaning that encompasses both hand-operated and foot-operated controls. *See* S9.4 (''Each vehicle must have a means of switching between lower and upper beams designed and located so that it may be operated conveniently by a simple movement of the driver's hand or foot.'').

[204] For an ADB system in manual mode, for which the only beams permitted are lower and upper beams, simultaneous activation of lower and upper beams (subject to some limited exceptions) is prohibited by the current language in S9.4, which requires that ''except as provided by S6.1.5.2, the lower and upper beams must not be energized simultaneously except momentarily for temporary signaling purposes or during switching between beams.'' However, to make this clear, we have added a cross-reference to S9.4 in S4 in the ADB requirements. For an ADB system in automatic mode, we have also clarified that the system may only switch between lower, upper, and adaptive driving beams and may not simultaneously activate any of those beams.

[205] *See* S6.1.5.2, S9.4, Table I–a, and Table II.

G. Accommodation of Different Technologies

In the NPRM, we explained that our intent was to ensure that ADB systems operate robustly, while not unduly restricting manufacturer design flexibility.

Comments

NHTSA received a variety of comments regarding the appropriateness of the requirements for high-resolution ADB systems. Infineon commented that the final rule must allow for innovation (*e.g.,* high-resolution systems). Texas Instruments also highlighted the existence of high-resolution pixelated ADB systems that make it possible to design more flexible and precise beam patterns. It commented that the final rule should exempt high-resolution ADB systems from the requirement that the upper beam minima be met in areas of unreduced intensity and suggested allowing variable light levels between the lower beam minima and the upper beam maxima. It also asserted that the final rule should exempt high-resolution systems from the 25-mph minimum activation speed requirement to avoid blocking innovative uses of high-resolution lighting in urban settings. Texas Instruments also commented that the proposal did not consider advanced functions other than ADB (such as symbol generation) and requested that NHTSA consider including guidance in the regulations on how such systems could be deployed, possibly by considering them supplemental lighting. Volkswagen requested that NHTSA reconsider its past interpretation of the lower beam headlamp requirements as applied to LEDs (namely, that an integral beam headlamp that uses multiple LEDs would be compliant as long as the LEDs were designed to operate or fail as though they are wired in series) to accommodate high-definition ADB systems.

Zoox commented that the final rule should permit highly-automated vehicles, those without manual controls for human drivers, to certify to the ADB requirements. Zoox also suggested deleting or modifying (by replacing ''must'' with ''may'') the operating instructions requirement in S9.4.1.1 to accommodate highly automated vehicles.

Honda stated that manufacturers may employ multiple methods to produce an ADB beam, such as an enhanced lower beam, an enhanced upper beam, or a separate mid beam (essentially a partial upper beam in addition to a lower beam). Honda requested clarification on how NHTSA would interpret such ADB variations, and how this may impact technology innovation in this area. Honda also stated that opportunities exist to provide lighting patterns that are physically directed above lower beam levels and below higher beam levels. The goal of such a mid-beam lighting pattern would be to further balance the needs of visibility and glare prevention and expand potential ADB operation speeds and environments. They noted that since such a mid-beam would not solely be able to comply with the existing lower beam requirements, this mid beam would still require the lower beam to be activated. Honda requested clarification on how NHTSA would interpret the standard with respect to this.

Agency response

NHTSA believes the final rule is generally technology neutral, and accommodates high-resolution technologies, provided they meet the rule's performance criteria. The agency disagrees with Texas Instruments' comment that the final rule should exempt high-resolution systems from certain requirements because the final rule is intended to be performance-based and technology neutral.

However, as explained earlier, we have modified the proposal in response to the comments to provide more flexibility in beam design. The final rule does not limit the number or shape of areas of reduced or unreduced intensity, and permits localized dimming of the beam within the photometric limits of the region of the beam in which it is located (*e.g.,* an area of reduced intensity may vary in intensity based on the surrounding environment provided that intensity stays within the corresponding maximum and minimum limits for the lower beam applicable to the direction of light). The final rule also provides for a transition zone. While the rule specifies the upper beam minima in the area of unreduced intensity, the definitions of the areas of reduced and unreduced intensity have been revised to give manufacturers more flexibility in beam design.[206] The minimum activation speed has also been lowered to provide more flexibility to manufacturers.[207]

We are not revising the rule in response to the comments by Texas Instruments and Zoox regarding advanced functions such as on-road symbols and highly autonomous vehicles because those issues are outside the scope of this rulemaking. Volkswagen's comment regarding NHTSA's interpretation of the requirements with respect to LED failures applies to LED headlamps generally, not just ADB systems, and is also outside the scope of this rulemaking.

With respect to Honda's comments, the final rule has two sets of requirements for an adaptive driving beam: The laboratory requirements and the track test requirements. Any ''mid-beam'' patterns would be tested according to these requirements and test procedures. For example, if Honda wishes to provide greater intensities than 1,400 at the 1.5 U line as required for a lower beam, but less than the 5,000 cd that is required at the upper beam test point 1U, 3R, the requirements finalized today would prohibit this (unless if it were within a transition zone, which may not exceed 1.0 degree in either the horizontal or vertical direction). As explained previously, this assures drivers that both glare protection and visibility of an ADB lighting system will be equivalent to that of an upper and lower beam. The reduced and unreduced intensity areas only need to meet the lower and upper beam requirements, not the levels of intensity provided by actual upper and lower beams installed on the vehicle. In the example above, if that point is an area of unreduced intensity, 5,000 cd is all that is required at 1U, 3R, even though many upper beams produce more than 30,000 cd in that area. In this way, aspects of a middle beam are permitted. For instance, if the upper beam installed on the vehicle produces high levels of reflected light from a sign in the 1U, 3R region, but a shaded area meeting the lower beam requirements are more limiting than desired because, the upper beam may be reduced to as little as 5,000 cd. The agency believes this provides flexibility to customize a headlighting system to achieve the performance described by Honda.

Accordingly, the final rule does not adopt Honda's suggested edits of the NPRM's regulatory text. Nor does the rule adopt its suggestion that the lower beam (or area of reduced intensity) need only comply with the maximum photometric requirements of Table XIX[208]; as explained earlier in this document (Section VIII.D, Laboratory (Component-Level) Testing), the final rule retains the Table XIX requirements (both minima and maxima) for areas of

[206] *See* Section VIII.D, Laboratory (Component-Level) Testing.

[207] *See* Section VIII.E, Minimum Activation Speed.

[208] Honda's comment referred to ''Table XVIII'', but since these are the upper beam requirements, and Honda's edit concerned the lower beam, we assume Honda meant to refer to Table XIX, which contains the lower beam photometric requirements.

reduced intensity (and does not alter the lower beam requirements). However, the final rule does modify the regulatory text to clarify which photometry requirements apply to areas of reduced and unreduced intensities—for example, for an area of reduced intensity, the Table XIX test points that correspond (with respect to angular location) to that area of reduced intensity apply.

H. Requirements for Semiautomatic Beam Switching Devices Other Than ADB and Applicability of Compliance Options

The proposal retained the existing semiautomatic beam switching requirements for standard systems (*i.e.,* beam switching devices that switch only between an upper beam and a single lower beam), explaining that these requirements have been in the standard for several decades, and while they might be updated, the focus of the rulemaking was on amending the standard to allow the adoption of ADB systems. The proposal classified these requirements as compliance Option 1, and the requirements for ADB systems as compliance Option 2.

Comments

Valeo commented that ADB is essentially an advanced type of semiautomatic headlamp beam switching device and suggested that it could be certified to the existing requirements for these devices (classified under Option 1 in the proposal), without any of the proposed restrictions and vehicle level testing. Conversely, Global commented that a standard semiautomatic beam switching feature should be permitted to certify to the new ADB requirements (Option 2).

Bosch and Volkswagen requested that NHTSA update the semiautomatic beam switching device requirements for conventional automatic ''hi-beam'' systems (Option 1) to harmonize with SAE J656 (FEB 2010). Bosch commented that the current semiautomatic beam switching requirements (in S9.4.1 and 14.9.3.11 of the standard) are based on a 1969 SAE standard (SAE J565), and beam switching technology has evolved considerably since then. Bosch urged NHTSA to issue a supplemental notice of proposed rulemaking or a separate rulemaking proceeding to update the requirements to account for such advancements, including the use of camera-based systems and advanced light sources. Volkswagen pointed out that SAE J565 allows for a system without sensitivity adjustment, which modern camera-based systems no longer use, and modernized the luminous intensity minimum and maximum value requirements.

Agency Response

The NPRM did not discuss, and, other than Valeo's comment, the commenters did not raise, the issue of whether an ADB system could be certified to the first option. NHTSA agrees that an ADB system is a type of semiautomatic beam switching device, but not necessarily that ADB systems were allowed by the standard prior to today's amendments. As explained in the NPRM, NHTSA's understanding has been that most, if not all, ADB systems would not have complied with at least some of the requirements that apply to semiautomatic beam switching devices. Among other things, most ADB systems would not comply with the semiautomatic beam switching device requirements that existed prior to today's rule (and are now classified as compliance Option 1) because they would not always comply with the existing photometry requirements. Accordingly, NHTSA expects that ADB systems will be certified to Option 2 and not Option 1.

The NPRM also did not address whether standard semiautomatic beam switching systems could be certified to Option 2. The proposed regulatory text (along with the preamble) implied that semiautomatic headlamp beam switching devices other than ADB systems could only be certified to Option 1 and that ADB systems could only be certified to Option 2. In light of the fact that the proposal did not squarely raise this issue, and the fact that this approach maintains the status quo with respect to conventional semiautomatic beam switching devices, the final rule retains the proposed labels for the two compliance options. The final regulatory text provides that standard semiautomatic beam switching systems may only be certified to Option 1.

As Bosch suggested in its comment, updating the Option 1 semiautomatic beam switching requirements to account for advances in technology is outside the scope of this rulemaking. NHTSA will consider this idea as a suggestion for future rulemaking.

I. Physical Test Requirements

The NPRM explained that FMVSS No. 108 sets forth a variety of performance requirements for semiautomatic beam switching devices (in S14.9.3.11), including a series of physical tests (*e.g.,* vibration requirements). The NPRM did not propose to subject the switch controlling the ADB system to any physical test requirements, explaining that the existing physical test requirements date from the 1960s and do not appear to extend usefully to modern ADB technologies. The NPRM also did not propose any new physical test requirements, based upon a tentative belief that market forces would ensure an ADB system's switching device will operate robustly. The proposal explained, however, that other FMVSS No. 108 headlamp requirements would apply to ADB systems, including the physical test requirements in S14.6 (*e.g.,* an abrasion test and a chemical resistance test).

Comments

Global concurred that new physical test requirements were unnecessary. Intertek agreed that ADB systems should be subject to all existing physical test requirements for current headlamps.

Agency Response

The final rule follows the proposal and does not contain any physical tests specific to ADB systems. ADB systems will be subject to the physical test requirements applicable to all headlamp systems.

J. Other Requirements

Comments

A few commenters mentioned unique challenges presented by the requirements for vertical headlamp arrangement for vehicles with high-mounted headlamps. The Alliance and Ford commented that glare increases as vehicle mounting heights increase and stated that this may result in light trucks, utility and crossover vehicles not meeting NHTSA's glare requirements. They asserted that this fact could either exclude a significant portion of the new vehicle population from utilizing ADB technology or increase vehicle cost and complexity by necessitating additional hardware and components. To address this, they requested making the vertical beam arrangement requirement in S6.1.3.5.1 optional. Toyota similarly stated that vehicles with headlamps mounted higher than the height from which glare limits were derived (0.62 m) would have difficulty meeting the proposed glare limits and could prevent introduction of ADB on a significant number of trucks and SUVs. Toyota stated that the 0.62 m height is based on the typical height of a passenger vehicle, which is not representative of the current vehicle fleet. Toyota stated that the shift in the fleet mix from the time this limit was derived makes it difficult for OEMs to meet the requirements at nominal or zero aim for these high-volume vehicles. Toyota suggested that

the design would have to aim the lower beams downward on higher-mounted headlamps in order to meet the glare limits for ADB, thereby deteriorating the lower beam visibility provided to the driver. Toyota claimed that this would reduce the safety benefits of ADB by either sacrificing optimal lower beam performance or limiting the introduction of ADB on a significant number of vehicles.

Related to this, Subaru commented specifically on the proposed requirements for headlamp arrangement,[209] stating that it seemed to imply that a vehicle without parking lamps might somehow be permitted by the rule. They requested that NHTSA clarify this provision and asked whether it would simply mean a vehicle must illuminate the outermost lamps when the ADB system is active.

Agency Response

With respect to the comments about vehicles with high-mounted headlamps, this issue is also present with respect to the lower beams on those vehicles. As such, those vehicles already tend to have their headlamps aimed downward, to avoid glaring oncoming or preceding vehicles. While manufacturers might feel the need to aim the headlamps somewhat lower to accommodate an adaptive driving beam, that would be likely to have the greatest impact on areas of reduced intensity, not areas of unreduced intensity (due to the characteristics of lower beam and upper beam patterns), and would not likely have an outsized impact on visibility.

Additionally, as suggested by the Alliance and Ford, manufacturers might wish to alter the vertical arrangement of the headlamps and/or light sources. However, the commenters who commented about high-mounted headlamps appeared to overlook that the proposed rule permitted (in S9.4.1.6.8) the adaptive driving beam to be provided by any combination of headlamps. In light of the comments, the final rule retains the proposed provision (now codified at S9.4.1.6.5) but modifies and clarifies the regulatory text to reflect that the adaptive driving beam is now considered a new beam type and not a lower beam as was initially proposed.

Regarding Subaru's comment, the proposed S9.4.1.6.8 was not intended to imply that parking lamp requirements were being eliminated. The standard requires parking lamps on all passenger cars, and MPVs, trucks, and buses less than 2032 mm in overall width. Today's final rule does not alter this requirement. On vehicles for which parking lamps are not required, the final rule requires that the adaptive driving beam may be provided using any combination of headlamps but must include the outermost installed headlamps to show the overall width of the vehicle.

The final rule amends 10.14.1, 10.15.1 and 10.16.1 to require that a headlamp system provide not more than two adaptive driving beams; this parallels the same requirement for upper beams and lower beams. The final rule does not amend 10.13.1 because ADB does not appear feasible for sealed beam systems.

K. Information Reporting

The NPRM did not propose any reporting requirements related to ADB system performance in the field.

Comment

Consumer Reports commented that NHTSA should require manufacturers to submit detailed and timely information regarding the performance of ADB systems and the consumer experience with them as they are introduced. They suggested that this information be made available in aggregate form publicly, at a minimum, and include crash reduction estimates, near-miss statistics that are reasonably related to lighting, and consumer satisfaction data, including documentation of the technology's impact on glare experienced by other drivers.

Agency Response

NHTSA is not adopting the information collection requirement suggested by Consumer Reports. If, after ADB systems have been deployed, the agency sees a need to obtain detailed information on the performance of ADB systems, it will address the matter at that time.

L. Aftermarket Compliance

Motor vehicle manufacturers are required to certify that their vehicles comply with all applicable FMVSS, including FMVSS No. 108.[210] FMVSS No. 108 also applies to replacement equipment (*i.e.,* equipment sold on the aftermarket to replace original equipment installed on the vehicle).[211] Replacement equipment must be designed to conform to meet any applicable requirements and include all functions of the lamp it is designed to replace or be capable of replacing.[212] Each replacement lamp designed or recommended for particular vehicle models must be designed so that it does not take the vehicle out of compliance with the standard when the device is installed on the vehicle.[213] A manufacturer of replacement equipment is responsible for certifying that equipment.[214]

The NPRM stated that it may be the case that only the manufacturer of the original equipment and/or vehicle would be able to make a good-faith certification of ADB replacement equipment because requirements are vehicle-level, not equipment level, and sought comment on this.

Comments

TSEI requested clarification of whether the rule permits aftermarket ADB systems and stated that the benefits of ADB systems would be the same for aftermarket systems as for original equipment. Intertek supported allowing aftermarket parts, and believed that it is entirely feasible in aftermarket certification to rent or purchase the vehicle for which the ADB headlamp or switch is designed in order to conduct vehicle-level testing, and that while technical challenges could make aftermarket systems/parts cost-prohibitive, that will be driven by market demand.

Agency Response

The final rule permits certification of aftermarket ADB systems and parts. There would seem to be essentially two categories of aftermarket ADB systems. The first is an aftermarket ADB system replacing an original-equipment system; the second is an aftermarket ADB system replacing a non-ADB headlamp. In either case, the aftermarket ADB headlamp would be a ''replacement'' headlamp subject to FMVSS No. 108 because it would be ''replacing like equipment on vehicles to which the standard applies.'' [215] As such, the

[209] *See* S9.4.1.6.8 in the proposed regulatory text. (''When the ADB system is activated, the lower beam may be provided by any combination of headlamps or light sources, provided there is a parking lamp. If parking lamps meeting the requirements of this standard are not installed, the ADB system may be provided using any combination of headlamps but must include the outermost installed headlamps to show the overall width of the vehicle.'') The NPRM considered the adaptive driving beam to be a lower beam. As explained earlier, under the final rule the adaptive driving beam is defined as a new beam type and is accordingly not considered a lower beam.

[210] 49 U.S.C. 30115.

[211] S3.3 (the standard applies to ''[l]amps, reflective devices, and associated equipment for replacement of like equipment on vehicles to which this standard applies.'').

[212] S6.7.1.1.

[213] S6.7.1.2.

[214] 49 U.S.C. 30115; Letter from NHTSA to George Van Straten, Van Straten Heated Tail Light Co., Inc. (Aug. 11, 1989).

[215] S3.3.

aftermarket manufacturer will need to certify the headlamp to FMVSS No. 108; that is, the headlamp ''must be designed so that it does not take the vehicle out of compliance with the standard when the individual device is installed on the vehicle.'' This would include the ADB requirements, as well as any other applicable requirements. Accordingly, an aftermarket manufacturer could certify and sell ADB headlamps, if the product complies and the manufacturer was able to make a good-faith certification.[216]

As noted in the NPRM, it might be difficult as a practical matter for aftermarket manufacturers to make the necessary certification. For example, if an aftermarket supplier wanted to develop an ADB system for a vehicle not originally equipped with ADB, it would need to certify that the aftermarket ADB system was designed to conform with this final rule and that it would not otherwise take the vehicle out of compliance with any other standards. Because the final rule requires specific switching conditions, the aftermarket system may need to replace the interior lighting control systems to allow for control of the ADB system. On the other hand, the final rule significantly simplifies the test procedures the agency will use to determine compliance, which could ease the certification of aftermarket systems.

M. Exemption Petitions

In 2016, Volkswagen submitted a petition for a temporary exemption (under 49 CFR part 555) from some of the requirements of FMVSS No. 108 to sell up to 2,500 exempted vehicles equipped with ADB systems during each of the 12-month periods covered by the requested exemption. NHTSA published a notice of receipt of this petition on September 11, 2017 and provided a 30-day comment period.[217] BMW of North America, LLC (BMW) submitted a similar petition, dated October 27, 2017. On March 22, 2018, NHTSA published a notice of receipt of the BMW petition and requested additional information from both petitioners.[218] Both Volkswagen and BMW subsequently submitted additional information to the docket. Prior to today, NHTSA had not made a decision on either petition.

Comments

The Alliance, Volkswagen, and Auto Innovators requested NHTSA grant these petitions to facilitate gathering of usage and performance data.

Agency Response

NHTSA believes that the publication of this final rule obviates the need for the requested exemptions. NHTSA is today publishing a separate notice of decision denying the petitions (Docket No. NHTSA–2017–0018).

N. Compliance Date

This final rule is effective on the date of publication in the **Federal Register**. The Alliance requested that the final rule be effective on publication. This final rule permits the certification of vehicles equipped with ADB systems if a manufacturer chooses to equip a vehicle with such a system. NHTSA believes there is good cause to permit ADB systems meeting FMVSS No. 108 quickly as possible because the systems produce increased illumination without increasing glare, and have the potential to offer significant safety benefits in avoiding collisions with pedestrians, cyclists, and roadside objects. Good cause exists for these amendments to be made effective immediately pursuant to 49 U.S.C. 30111(d), which allows an FMVSS to become effective sooner than 180 days after publication of the standard if an earlier effective date is in the public interest.

O. Regulatory Alternatives

In developing the final rule, NHTSA considered the ECE ADB requirements and SAE J3069. As explained earlier, the ECE requirements are not sufficiently objective to be incorporated into an FMVSS. Accordingly, the main regulatory alternative NHTSA considered was SAE J3069.

The proposal deviated from SAE J3069 in several ways; the NPRM explained this in detail. In general, we explained that there were two major differences.

First, the proposed vehicle-level track test was more realistic and complex than the SAE J3069 track test. SAE J3069 specifies testing using a straight-path scenario (and simulating curves with fixture placement), and instead of using oncoming or preceding stimulus vehicles, uses stationary test fixtures positioned at specified locations adjacent to the test track. The proposed test permitted NHTSA to test using scenarios having curved paths (with various radii of curvature) using a broad range of FMVSS-certified vehicles as oncoming or preceding vehicles.

Second, the proposal specified additional component-level photometric requirements to regulate both glare and visibility that were not included in the SAE document. We proposed to require that an area of reduced intensity be designed to conform to the Table XIX lower beam photometry requirements (both maxima and minima). This differed from SAE J3069, which only specified the lower beam maxima for the area of reduced intensity. We similarly proposed that an area of unreduced intensity conform with the Table XVIII upper beam photometric maxima and minima. SAE J3069 required only that the lower beam minima be met in this area.

NHTSA tentatively concluded that the differences between the proposal and SAE J3069 were needed to ensure the ADB systems meet the dual safety needs of glare prevention and visibility.

Comments

Many commenters asserted that NHTSA should adopt either SAE J3069 or the ECE requirements. Concerns about the proposal not harmonizing with either the SAE or ECE requirements were mainly focused on the broad acceptance of existing systems in the world market and the additional costs associated with development of systems that would comply with the proposal. No data were presented to quantify any additional development or system costs to comply with the proposed rule.

As noted at various points earlier in this document, a few commenters did support a variety of specific departures from SAE J3069. More generally, Intertek agreed that the SAE J3069 approach may not be sufficient to validate ADB performance over the full range of typical real-world situations; it supported a more rigorous track test than specified in SAE J3069, but also believed that the full set of proposed test scenarios might not be necessary.

Many commenters, however, strongly supported harmonization with SAE J3069 and/or the ECE requirements in order to align with requirements or approaches in other markets. Honda, Global, GM, SAE, CEI, Toyota, the Alliance, Mobileye, and OSRAM specifically supported SAE J3069. MEMA, Infineo, Valeo, and NAFA supported either SAE J3069 or the ECE requirements. Ford, Volkswagen, SMMT, Mobileye, OICA, NAFA, and Hella supported global harmonization generally, and Seastrunk and Montgomery supported harmonizing with the ECE requirements. Mobileye

[216] *See also* 70 FR 65972, 65974 (Nov. 1, 2005) (Notice of Interpretation) (''To the extent the vehicle manufacturer could have certified the vehicle using the replacement lamp, instead of the lamp it actually used, we believe the replacement lamp should be viewed as being designed to conform to FMVSS No. 108.'')

[217] 82 FR 42720 (Docket No. NHTSA–2017–0018).

[218] 83 FR 12650 (Docket No. NHTSA–2017–0018).

supported making relatively minor changes to SAE J3069 (such as more realistic lamps). Commenters made a variety of arguments related to this.

A number of commenters (Global, MEMA, EMA, Intertek, CEI, Volkswagen, SAE, Mobileye, the Alliance, Hella, OSRAM, SMMT, Ford, and OICA) commented or supported the comments of others that the proposed departures from the SAE and ECE standards would lead to additional costs, both because the different requirements would require different hardware, components, and/or software and because the proposed testing was more complex. Global also commented that the lower costs would come with no diminution in performance and an increase in visibility. SAE commented that SAE J3069 was designed to harmonize with the ECE requirements in order to allow common headlamps, controllers, and sensors across markets; any aspects not harmonized could be accommodated in headlamp aim or software calibration differences to avoid hardware differences. OSRAM, SMMT, Volkswagen, Ford, MEMA, and OICA agreed with or echoed SAE's comment. Hella commented that the NPRM will demand completely different headlamp systems and additionally different forward sensor designs compared to those already in use. This means, that additional development is needed to establish an ADB system in the US when compared to the rest of the world. EMA added that its members have been developing ADB systems based on the ECE requirements and have no experience with the proposed requirements; moreover, heavy-duty vehicles are often engaged in cross-border operation that makes harmonized requirements even more appropriate. Intertek estimated that that the proposed track testing could cost as much as two to four times more than testing to the SAE standard, which itself is around three times costlier than current headlamp testing.

Several commenters (MEMA, the Alliance, Ford, Volkswagen, OICA, Hella, GM, SAE, CEI, and SMMT) stated that the proposal would disharmonize with Canada. MEMA noted that the Canadian regulations accept either ECE R123 or SAE J3069, and stated that the proposal was inconsistent with a Memorandum of Understanding between the U.S. and Canada regarding regulatory cooperation.[219] The Alliance commented that while there have been longstanding differences with headlighting requirements between the U.S. and Europe, differences between the U.S. and Canada have been minimal. Ford commented that harmonization makes sense given the close integration of the two markets.

Infineon, EMA, Volkswagen, the Alliance, CEI, and NAFA commented that the increased costs associated with the proposal would increase the cost to consumers, hindering ADB adoption and the accompanying safety benefits. CEI also contended that reduced consumer demand for ADB systems could also reduce manufacturer investment in lighting system research and development. NAFA highlighted the potential impact on adoption by vehicle fleets for which cost is important.

Global, Volkswagen, and the Alliance suggested that the disharmonized aspects of the proposal would not lead to safety benefits or could decrease safety benefits. For example, Volkswagen stated that, compared to the proposal, SAE J3069 would lead to ADB systems providing better visibility. Volkswagen also stated that there is no evidence that the ECE requirements are leading to excessive glare, and that it has developed numerous ADB systems for other markets and tested to the SAE standard, and has not received any complaints from customers or regulatory authorities about glare. A few commenters (GM, Toyota, MEMA, Global, Volkswagen) also stated that J3069 would provide a more objective, practicable, and/or repeatable test procedure.

Agency Response

NHTSA agrees with the commenters that harmonization is an important goal. Moreover, the National Technology Transfer and Advancement Act directs Federal agencies to use voluntary consensus standards in lieu of government-unique standards.[220] This directive, however, is not absolute. The NTTAA goes on to provide that an agency may decline to use existing consensus standards if it determines that such standards are inconsistent with applicable law or otherwise impractical.[221] ''Impractical'' includes circumstances in which the use of consensus standards would fail to serve the agency's regulatory needs; be inconsistent with a provision of law; or be less useful than the use of another standard.[222]

In light of these requirements, as well as the requirements of 49 U.S.C. 30111, and in response to the comments, NHTSA has modified the proposal to more closely follow SAE J3069 where warranted, but to deviate from that standard where necessary. The most important of these changes were specifying stationary stimulus test fixtures instead of dynamic stimulus vehicles and substantially simplifying the number and complexity of the test scenarios. However, there are several aspects of the final rule for which NHTSA ultimately concluded that deviation from SAE J3069 is warranted because J3069 did not adequately address glare or visibility. The major differences are summarized in Table 12. The preceding sections of this document discuss in detail the ways in which the final rule follows and differs from SAE J3069, and explains why we believe these departures are justified.

TABLE 15—SUMMARY OF MAJOR DIFFERENCES BETWEEN THE FINAL RULE AND SAE J3069

Test elements	Final rule	SAE J3069
Track test:		
Glare limit applicability	Applies the glare limits throughout the measurement range specified for each scenario.	Applies the glare limits only at 30 m, 60 m, 120 m, and 155 m.
Fixture lighting	Specifies actual vehicle lamp.	Specifies lamp assemblies intended to simulate vehicle lamps.
Test track geometry	Specifies actual curves of various sizes	Specifies a straight path and uses fixture placement to simulate curves.

[219] The comment cited the Memorandum of Understanding Between the Treasury Board of Canada Secretariat and OIRA Regarding the Canada-United States Regulatory Cooperation Council, June 4, 2018.

[220] National Technology Transfer and Advancement Act of 1995, Public Law 104–113, 12(d)(1), 110 Stat. 775 (1996).

[221] *Id.* at § 12(d)(3).

[222] Office of Management and Budget, Circular No. A–119, ¶ 5(c)(ii), Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities (Jan. 26, 2016).

TABLE 15—SUMMARY OF MAJOR DIFFERENCES BETWEEN THE FINAL RULE AND SAE J3069—Continued

Test elements	Final rule	SAE J3069
Compliance criteria	Specifies allowances for momentary glare and vehicle pitch fluctuations.	Allows measured illuminance to exceed an applicable glare limit if it does not exceed 125% of the lower beam illuminance under the same conditions.
Specifications related to smoothness of road surface.	Specifies vehicle pitch allowance	Recommends the test track have an International Roughness Index of less than 1.5 m/km.
Laboratory Test:		
Area of reduced intensity	Specifies lower beam (Table XIX) minima and maxima.	Specifies lower beam maxima.
Area of unreduced intensity	Specifies upper beam (Table XVIII) minima and maxima.	Specifies lower beam minima.
Physical tests	Not specified	Specifies various physical tests.
Minimum activation speed	20 mph	Not specified.

NHTSA recognizes that the final rule is more demanding than SAE J3069 in several respects, and further recognizes that this will result in some additional costs to develop and test these systems. The agency believes these additional costs are justified because the departures from the SAE test methods are warranted to properly address either glare or visibility concerns. NHTSA is not persuaded that the test procedures represent a significant cost burden over testing ADB systems per the SAE J3069 test. Much of the development work the industry has conducted on ADB systems for use in markets that permit certification to the UNECE or SAE standards would directly apply to the performance tests finalized today. As explained throughout this document, NHTSA has adopted parameters similar to either the SAE standard or the UNECE standard where appropriate.

For these same reasons, the agency believes that the resulting disharmonization will not hinder ADB deployment. Similarly, NHTSA concludes that the disharmonization with Canada is justified, and is not inconsistent with the Memorandum of Understanding, which provides, among other things, that the countries' respective regulations continue to apply, and that closer alignment of regulations would be consistent with their respective national laws and policies.

NHTSA also concludes the final rule is practicable. As explained in previous sections in the preamble, ADB systems performed the same on many of the final rule scenarios and the most closely analogous SAE scenarios. As also explained above, there are likely certain test scenarios (for example, right direction curves) with which some current ADB systems may not comply; however, in these instances NHTSA believes that manufacturers should be able to modify existing systems to meet the requirements.

NHTSA has also concluded that the final rule is objective and repeatable. The final rule sets out a rational test procedure that yields a clear answer based upon readings obtained from measuring instruments and is capable of producing identical results when test conditions are exactly duplicated.[223] Further, the final rule establishes the specific scenarios the agency may test, including ranges and values for key testing parameters, and specific numeric limits for the maximum allowable illuminance at certain distances. NHTSA believes that the final rule specifies the test parameters that contribute to most of the test-related variability, and that there is no ambiguity with respect to the parameter values (*e.g.,* differing radii of curvature) NHTSA may select in compliance testing. To further evaluate the repeatability of the track test, NHTSA conducted a repeatability analysis, which shows that the test is repeatable (see Section VIII.C.11, Repeatability).

P. Overview of Benefits and Costs

The NPRM considered the qualitative costs and benefits of the proposal compared to both the current baseline in which ADB systems are not deployed as well as the primary regulatory alternative (SAE J3069).[224] Based on this qualitative analysis, NHTSA tentatively concluded that ADB systems should be permitted (because the proposal would lead to higher net benefits compared to the status quo in which ADB systems are not deployed) and that the proposed requirements and test procedures would lead to higher net benefits than SAE J3069.[225]

Comments

With regard to allowing the introduction of ADB systems, as noted earlier, all the industry and public-interest commenters supported amending the standard to allow the introduction of ADB technology. Many of the drive-in theatre owner/operators indicated some level of support for the rule (assuming it provides for manual control). The majority of comments from individual members of the public supported the proposal, frequently on the grounds that it would likely reduce glare or increase safety. Some individual commenters, and some owner/operators of drive-in movie theatres, opposed the proposal and/or expressed concern that the introduction of ADB systems could lead to increased glare.

With respect to the proposed requirements and test procedures, most industry commenters stated that the proposed requirements were too stringent, and did not meet the need for safety because they overemphasized glare prevention at the expense of visibility. [226] Several commenters (Mobileye, the Alliance, IIHS, Auto Innovators, Toyota, Volkswagen) contended that the proposal did not maximize overall benefits because it prioritized glare prevention over enhanced visibility and stated that the final rule should instead place greater weight on the benefits from enhanced visibility. For example, Mobileye commented that the proposal would not allow OEMs to tune an ADB system to

[223] *See Chrysler Corp.* v. *Dept. of Transp.,* 472 F.2d 659, 676 (6th Cir. 1972) (construing ''objective'').

[224] NHTSA has not quantified the costs and benefits of the proposal for the reasons discussed in the NPRM and below in Section X, Rulemaking Analyses and Notices (in connection with the discussion of Executive Order 12866).

[225] For additional information, see the NPRM, pp. 51799–51801.

[226] There were numerous comments as to why specific aspects of the proposal were too stringent (for example, testing on small right curves). These specific comments are addressed in the preceding sections of the preamble. This section deals with more general comments about the overall stringency of the requirements and the relative benefits of visibility and glare prevention.

provide optimal visibility to drivers. Mobileye contended that the result would be that the benefit of providing a driver with higher visibility will be diminished with negligible gain in preventing glare. IIHS also argued that, in terms of safety, the glare problem appears relatively small (glare was cited in only 1% of non-daylight crashes in the National Motor Vehicle Crash Causation Survey). Auto Innovators similarly commented that NHTSA's own research indicates that it is difficult to determine glare as a direct cause of crashes or fatalities.[227] Auto Innovators noted that NHTSA's own research has shown that while glare was a contributing factor in only about 0.3% of nighttime fatal crashes [228] over 70% of pedestrian fatalities occur at night.[229] Auto Innovators also pointed to IIHS research finding that between 2009 and 2016, pedestrian deaths in dark conditions increased 56%[230] and a report from the Government Accountability Office finding that the number of pedestrians killed annually in motor vehicle crashes increased 43% between 2008 and 2018 and recommending NHTSA take additional actions to address pedestrian safety.[231] Toyota also asserted that glare is predominantly an issue of inconvenience and discomfort, and that the proposal was not justified by data showing that glare is a safety concern that requires such stringency.

Similarly, many commenters contended that the proposal, particularly the track test, was costly, burdensome, and impracticable. See Section VIII.C.1, Practicability of Proposed Test Scenarios. Honda also stated more generally that the proposed dynamic track test procedure did not strike the appropriate balance between effectiveness and practicality. On the other hand, AAA recommended that the requirements be technology-forcing with respect to improvements in both glare prevention and visibility, and not simply adhere to established minimums because absent such requirements such improvement may not be made.

A few commenters commented that the final rule would better balance visibility and glare if it exempted ADB systems from some or all the laboratory photometric requirements. In this context, IIHS specifically asserted that the Table XIX lower beam requirements should not apply to ADB, the Alliance suggested that none of the laboratory requirements should apply to ADB, and Volkswagen stated that the upper beam maximum should not apply.

Mobileye and the Alliance argued that the proposal's emphasis on glare was also unnecessary because market forces would sufficiently incentivize glare prevention. Mobileye explained that OEMs are more likely to hear from owners of ADB-equipped vehicles about problems with glare than with visibility. The Alliance commented that manufacturers are concerned with customer safety and satisfaction; for example, automatic high beam systems are evaluated from both driver and other motorist perspectives via intracompany test drive scenarios, some of which include the presence of simulated ''other motorists.'' The Alliance asserted that the deployment of ADB systems will result in a decrease in the volume of glare complaints received by NHTSA.

As noted in the regulatory alternatives section, many commenters recommended adopting SAE J3069. Some commenters (Global, Volkswagen, the Alliance) suggested that the disharmonized aspects of the proposal would not lead to safety benefits or could decrease safety benefits. Commenters also claimed that the proposal would be more costly than SAE J3069 and/or the ECE requirements because the disharmonization would result in additional development and component costs.

Agency Response

With respect to the costs and benefits of the final rule compared to the current baseline in which ADB systems are not deployed, NHTSA has concluded that because the rulemaking expands the set of consumer choices (compared to the status quo), it is an enabling regulation. NHTSA also concludes that, because it expects positive benefits and cost savings,[232] this final rule will lead to higher net benefits compared to the status quo in which ADB systems are not deployed.

With respect to the costs and benefits of the proposal compared to SAE J3069, in the NPRM NHTSA tentatively concluded that although the proposal was likely more costly than SAE J3069 (due to higher compliance testing and equipment costs), these higher costs were likely outweighed by the higher safety-related benefits (and lower glare disbenefits). We therefore tentatively concluded that the likely net benefits of the proposal were greater than if we adopted SAE J3069 in every respect. As we explain below, however, after considering the comments NHTSA has concluded that more closely following SAE J3069 in certain respects would lead to higher net benefits than the proposal through lower costs (testing and equipment) and higher benefits (visibility) without meaningfully increasing disbenefits (glare). We believe the final rule appropriately balances benefits and costs and that the net benefits of the final rule are greater than if we adopted SAE J3069 in every respect.

As an initial matter, NHTSA agrees with the commenters that it is difficult to precisely determine the risk from glare; that pedestrian fatalities are on the rise; and therefore that improved visibility could help to address this trend. Nevertheless, in the absence of empirical evidence to the contrary, the agency still believes that glare poses a non-trivial safety risk that justifies some departures from the SAE standard.

NHTSA agrees with the commenters that the proposed track test to evaluate glare was too stringent in a couple of ways. First, the proposed track test somewhat overemphasized glare at the expense of visibility. This includes that lower beams that currently comply with FMVSS No. 108 may not have complied with some of the proposed scenarios. NHTSA also recognizes that the proposed requirements may have led manufacturers to tune ADB systems to be overly conservative in order to have acceptable compliance margins, potentially diminishing the visibility benefits that ADB can provide. Second, the agency agrees that the proposed track test procedure included redundant scenarios, and that the final rule can more closely follow SAE J3069 without sacrificing the evaluative power of the test.

The modifications we have made to the proposal address those issues regarding stringency. The most important of the modifications are the reduced number of test scenarios and the specification of stationary test

[227] Comment from Alliance for Automotive Innovation (NHTSA–2018–0090–0219), p. 8 (*citing* Nighttime Glare and Driving Performance, Report to Congress, National Highway Traffic Safety Administration, Department of Transportation (2007)).

[228] *Id.* (*citing* National Highway Traffic Safety Administration. 2014. Traffic Safety Facts 2012 Data: Pedestrians, DOT HS 811 888. Washington, DC: National Highway Traffic Safety Administration.).

[229] *Id.* (*citing* National Highway Traffic Safety Administration. 2018 (Revised). Traffic Safety Facts 2016 Data: Pedestrians, DOT HS 812 493. Washington, DC: National Highway Traffic Safety Administration.).

[230] *Id.* (*citing www.iihs.org/iihs/sr/statusreport/article/53/3/1.*).

[231] *Id.,* pp. 8–9 (*citing* Government Accountability Office. (2020, April). NHTSA Needs to Decide Whether to Include Pedestrian Safety Tests in Its New Car Assessment Program. (Publication No. GAO–20–419) (retrieved from *www.gao.gov/assets/710/706348.pdf.*).

[232] As we explained in the NPRM, the estimated cost savings of an enabling regulation include the full opportunity costs of the previously foregone activities (*i.e.,* the sum of consumer and producer surplus, minus any fixed costs). NPRM at p. 51800.

fixtures instead of dynamic stimulus vehicles to follow SAE J3069 more closely and reduce the complexity of testing. However, the final track test procedure continues to depart from SAE J3069 in a few ways, especially in that it retains the use of curved test path scenarios and uses fixtures fitted with actual vehicle lamps. The agency believes that the final test scenarios are efficient yet sufficient to determine whether an ADB system prevents glare to other motorists, and that the final rule strikes an appropriate balance between visibility and glare prevention, and between safety and practicability. The reasons for the agency's specific choices are explained earlier in the preamble.

NHTSA believes the final rule is neither cost-prohibitive nor impracticable compared to the alternatives. As explained in Section VIII.O (Regulatory Alternatives), design and development costs will not significantly differ from those that would have been incurred by compliance with the SAE or ECE standards. On the other hand, with respect to AAA's comment that the final rule be technology-forcing, NHTSA believes the final rule is somewhat technology forcing with respect to glare: While the requirements are generally within the capabilities of current ADB system, there are some respects in which tested ADB performance fell short (for example, appropriately responding to the motorcycle fixture). ADB systems may therefore need to be improved or modified to certify to some aspects of the requirements. With respect to visibility, the final rule does depart from SAE J3069 in requiring the lower beam minima in an area of reduced intensity and the upper beam minima in an area of unreduced intensity.

With respect to the comments about market incentives to mitigate glare, NHTSA does not doubt that OEMs are attentive to owner concerns but believes that vehicle owners are less likely to notify OEMs about issues with glaring other motorists. Manufacturers pointed to the lack of warranty claims or vehicle owner complaints about glare issues (and Volkswagen noted that it has not received any owner complaints about ADB systems causing glare). Of course, this could indicate that there are no glare issues, but it also could indicate that glare issues go unreported. In any case, the fact that glare is largely an externality would seem to make glare mitigation less likely to be incentivized by market signals.

NHTSA also believes that the final component-level laboratory testing requirements strike an appropriate balance between visibility and glare. In particular, the agency believes (and the comments did not convince us otherwise) that specifying the lower beam photometric minima for areas of reduced intensity and the upper beam minima in areas of unreduced intensity are important for guaranteeing a minimum level of visibility. Conversely, as discussed earlier in the preamble, it is important to specify the current upper beam maximum for areas of unreduced intensity.

IX. Appendix to FMVSS No. 108 (Table of Contents)

When NHTSA re-wrote FMVSS No. 108 (the final rule for which was published in 2007), it added an appendix that contained a table of contents for the standard.[233] The Office of the Federal Register no longer allows appendices to sections, and § 571.108 is the only section in Part 571 to have a table of contents. Because the appendix may be a useful aid to users of the standard, rather than simply deleting the appendix NHTSA is moving it to the end of subpart B of Part 571.

X. Rulemaking Analyses and Notices

Executive Order 12866, Executive Order 13563, and DOT Regulatory Policies and Procedures

We have considered the potential impact of this final rule under Executive Order 12866, Executive Order 13563, and DOT Order 2100.6A. This final rule is not significant and so was not reviewed by OMB under E.O. 12866 and is not of special note to the Department under DOT Order 2100.6A. Pursuant to E.O. 12866 and the Department's policies, we have identified the problem this rule addresses, assessed the benefits and costs, and considered alternatives. These analyses have been provided in preceding sections of the preamble; benefits and costs are summarized in Section VIII.P. As explained below, NHTSA has determined that quantifying the benefits and costs is not practicable for this rulemaking.

Quantifying the benefits of the rule—the decrease in deaths and injuries due to the greater visibility made possible by ADB—is difficult because of a variety of data limitations related to accurately estimating the target population and the effectiveness of ADB systems (as well as the potential penetration rate of ADB systems). For example, headlamp state (on-off, upper-lower beam) is not reflected in the data for many pedestrian crashes. Nevertheless, in the NPRM we attempted to broadly estimate the magnitude of the target population.[234]

Quantification of costs is similarly not practicable. The only currently-available ADB systems are in foreign markets such as Europe. We believe, as explained in the discussion of regulatory alternatives and elsewhere in the preamble, that an ECE-approved ADB system (modified to have FMVSS 108-compliant photometry) would, with some further modifications, be able to comply with the rule's requirements (see the discussion of regulatory alternatives). For the reasons explained in detail in the preamble, we believe that the final requirements are generally within the capabilities of existing ADB systems, although some adjustments might be necessary. We also note that this final rule does not require manufacturers to equip their vehicles with ADB systems. The requirements of this final rule specify minimum performance requirements for the lighting systems that only apply if manufacturers choose to equip vehicles with ADB systems.

Although NHTSA has concluded that quantification of costs and benefits is not practicable, we have qualitatively assessed the benefits and costs of the final rule. As we explain in Section VIII.P, Overview of Benefits and Costs, we believe the final rule appropriately balances benefits and costs and that the net benefits of the final rule are greater compared to both the status quo in which ADB systems are not deployed and if we adopted SAE J3069 in every respect.

Executive Order 13609: Promoting International Regulatory Cooperation

The policy statement in section 1 of Executive Order 13609 provides that the regulatory approaches taken by foreign governments may differ from those taken by the United States to address similar issues, and that in some cases the differences between them might not be necessary and might impair the ability of American businesses to export and compete internationally. It further recognizes that in meeting shared challenges involving health, safety, and other issues, international regulatory cooperation can identify approaches that are at least as protective as those that are or would be adopted in the absence of such cooperation and can reduce, eliminate, or prevent

[233] 72 FR 68234 (Dec. 4, 2007). This was an administrative rewrite; it did not impose any new substantive requirements on manufacturers.

[234] *See* Appendix A in the NPRM. Toyota's rulemaking petition also includes a target population analysis using a different methodology. Letter from Tom Stricker, Toyota Motor North America, Inc. to NHTSA, Appendix D (Mar. 29, 2013).

unnecessary differences in regulatory requirements.

This rule is different than comparable foreign regulations. For the reasons described in this preamble, these differences are justified because they have the potential to enhance safety.

Executive Order 13132 (Federalism)

NHTSA has examined this rule pursuant to Executive Order 13132 (64 FR 43255; Aug. 10, 1999) and concluded that no additional consultation with States, local governments, or their representatives is mandated beyond the rulemaking process. The agency has concluded that the rule does not have sufficient federalism implications to warrant consultation with State and local officials or the preparation of a federalism summary impact statement. The rule does not have ''substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.''

NHTSA rules can have preemptive effect in two ways. First, the National Traffic and Motor Vehicle Safety Act contains an express preemption provision: When a motor vehicle safety standard is in effect under this chapter, a State or a political subdivision of a State may prescribe or continue in effect a standard applicable to the same aspect of performance of a motor vehicle or motor vehicle equipment only if the standard is identical to the standard prescribed under this chapter. 49 U.S.C. 30103(b)(1). It is this statutory command by Congress that preempts any non-identical State legislative and administrative law address the same aspect of performance.

The express preemption provision described above is subject to a savings clause under which ''[c]compliance with a motor vehicle safety standard prescribed under this chapter does not exempt a person from liability at common law.'' 49 U.S.C. 30103(e). Pursuant to this provision, State common law tort causes of action against motor vehicle manufacturers that might otherwise be preempted by the express preemption provision are generally preserved. However, the Supreme Court has recognized the possibility, in some instances, of implied preemption of State common law tort causes of action by virtue of NHTSA's rules—even if not expressly preempted.

This second way that NHTSA rules can preempt is dependent upon the existence of an actual conflict between an FMVSS and the higher standard that would effectively be imposed on motor vehicle manufacturers if someone obtained a State common law tort judgment against the manufacturer—notwithstanding the manufacturer's compliance with the NHTSA standard. Because most NHTSA standards established by an FMVSS are minimum standards, a State common law tort cause of action that seeks to impose a higher standard on motor vehicle manufacturers will generally not be preempted. However, if and when such a conflict does exist—for example, when the standard at issue is both a minimum and a maximum standard—the State common law tort cause of action is impliedly preempted. See *Geier* v. *American Honda Motor Co.,* 529 U.S. 861 (2000).

Pursuant to Executive Order 13132, NHTSA has considered whether this rule could or should preempt State common law causes of action. The agency's ability to announce its conclusion regarding the preemptive effect of one of its rules reduces the likelihood that preemption will be an issue in any subsequent tort litigation.

To this end, the agency has examined the nature (*e.g.,* the language and structure of the regulatory text) and objectives of this rule and does not foresee any potential State requirements that might conflict with it. We note that many or most States have laws that regulate lower and upper beam use. These laws require that a motorist use a lower beam within a certain distance of an oncoming or preceding vehicle. We do not believe that there is a conflict between the rule and these laws. A vehicle equipped with a compliant and properly functioning ADB system should not glare other vehicles. Moreover, the rule requires an ADB-equipped vehicle to provide the driver with a means of manually overriding the automatically provided beam. Therefore, if, for any reason the driver determines that the automatically provided beam is not appropriate, the driver can manually switch to the appropriate beam (*e.g.,* lower beam). NHTSA does not intend this rule to preempt State tort law that would effectively impose a higher standard on motor vehicle manufacturers than that established by this rule. Establishment of a higher standard by means of State tort law would not conflict with the standards in this final rule. Without any conflict, there could not be any implied preemption of a State common law tort cause of action.

National Environmental Policy Act

The National Environmental Policy Act of 1969 (NEPA) (42 U.S.C. 4321–4347) requires Federal agencies to analyze the environmental impacts of proposed major Federal actions significantly affecting the quality of the human environment, as well as the impacts of alternatives to the proposed action.[235] When a Federal agency prepares an environmental assessment, the Council on Environmental Quality (CEQ) NEPA implementing regulations (40 CFR parts 1500–1508) require it to (1) ''[b]briefly provide sufficient evidence and analysis for determining whether to prepare an environmental impact statement or a finding of no significant impact'' and (2) ''[b]briefly discuss the purpose and need for the proposed action, alternatives . . ., and the environmental impacts of the proposed action and alternatives, and include a listing of agencies and persons consulted.'' 40 CFR 1501.5(c). This section serves as the Final Environmental Assessment (Final EA).

Purpose and Need

This notice sets forth the purpose of and need for this action. As explained earlier in this preamble, ADB technology improves safety by providing a variable, enhanced lower beam pattern that is sculpted to traffic on the road, rather than just one static lower beam pattern, thereby providing more illumination without glare to other motorists. In addition, ADB technology will likely lead to increased upper beam use, thereby improving driver visibility distance at higher speeds. In the NPRM, NHTSA concluded that FMVSS No. 108 does not currently permit ADB technology.

Alternatives

NHTSA considered a range of regulatory alternatives for the proposed action. Under a ''no action alternative,'' NHTSA would not issue a final rule amending FMVSS No. 108, and ADB technology would continue to be prohibited. NHTSA has also considered the ECE requirements and SAE J3069, which are described above in this preamble. In the final rule, NHTSA incorporates elements from these standards, but departs from them in significant ways, which are also described above.

Environmental Impacts of the Proposed Action and Alternatives

This final rule is anticipated to result in increased upper beam use as well as greater illumination provided by the adaptive driving beams (in patterns designed to prevent glare to other motorists). As a result, the primary

[235] 42 U.S.C. 4332(2)(C).

environmental impacts anticipated to result from this rulemaking are associated with light pollution, including the potential disruption of wildlife adjacent to roadways. The National Park Service (NPS) defines ''light pollution'' as the introduction of artificial light, either directly or indirectly, into the natural environment.[236] Forms of light pollution include sky glow (the bright halo over urban areas at nighttime), light trespass (unintended artificial lighting on areas that would otherwise be dark), glare (light shining horizontally), and over illumination (excess artificial lighting for a specific activity).[237] Light pollution caused by artificial light can have various effects on flora and fauna, including disrupting seasonal variations and circadian rhythms, disorientation and behavioral disruption, sleep disorders, and hormonal imbalances.[238]

Although this rule is anticipated to result in increased levels of illumination caused by automobiles at nighttime, NHTSA does not believe these levels would contribute appreciably to light pollution in the United States. First, the rule requires that the part of an ADB beam that is cast near other vehicles not exceed the current lower beam maxima and the part of an ADB beam that is cast onto unoccupied roadway not exceed the current upper beam maxima. Although overall levels of illumination are expected to increase from current levels due to increased upper beam use and the sculpting of the adaptive driving beams to traffic on the road, total potential brightness would not be permitted to exceed the potential maxima that already exists on motor vehicles today. These maxima not only reduce the potential for glare to other drivers but also limit the potential impact of light pollution.

Second, we note that ADB systems remain optional. Because of the added costs associated with the technology, NHTSA does not anticipate that manufacturers would make these systems standard equipment in all their vehicle models at this time. Thus, only a percentage of the on-road fleet will feature ADB systems, while new vehicles without the systems are anticipated to continue to have levels of illumination at current rates.

Third, while ADB systems generally would increase horizontal illumination, they likely would not contribute to ambient light pollution to the same degree as other forms of illumination, such as streetlights and building illumination, where light is intentionally scattered to cover large areas or wasted due to inefficient design, likely contributing more to the nighttime halo effect in populated areas. According to NPS, the primary cause of light pollution is outdoor lights that emit light upwards or sideways (but with an upwards angle).[239] As the light escapes upward, it scatters throughout the atmosphere and brightens the night sky. Lighting that is directed downward, however, contributes significantly less to light pollution. Lower beams generally direct light away from oncoming traffic and downward in order to illuminate the road and the environs close ahead of the vehicle while minimizing glare to other road users. As a result, any increases in lower beam illumination are not anticipated to contribute meaningfully to light pollution. As discussed further in the next paragraph, increases in upper beam illumination would be anticipated largely in less populated areas, where oncoming traffic is less frequent and small sources of artificial light (such as motor vehicles) likely would not change ambient light levels at nighttime to a meaningful degree.

Fourth, NHTSA believes that the areas that would see the greatest relative increase in nighttime illumination are predominantly rural and unlikely to experience widespread impacts. The rule requires ADB systems to produce a lower beam at speeds below 20 mph. These slower speeds are anticipated primarily in crowded, urban environments where the current impacts of light pollution are likely the greatest. As a result, such urban environments should not experience changes in light levels produced from motor vehicles as a result of this rule. In moderately crowded, urban environments, nighttime vehicles may travel above 20 mph, thereby engaging the ADB system. However, in those cases, upper beam use would likely be low, as the high level of other road users would cause the ADB system to rely on lower beams for visibility in order to reduce glare for other drivers. These areas may experience small increases in light pollution as the upper beams occasionally engage, as well as increased illumination associated with the adaptive driving beam. In rural areas, where traffic levels are lower and driving speeds may be higher, the use of ADB systems is anticipated to result in increased upper beam use. However, the low traffic levels would result in only moderate additional light output, and the low quantity of artificial light sources in general would mean that light pollution levels overall would be anticipated to remain low.

The final rule is anticipated to improve visibility without glare to other drivers. In addition to the potential safety benefits associated with reduced crashes, this rule could result in fewer instances of collisions involving animals on roadways. Upper beams are used primarily for distance illumination when not meeting or closely following another vehicle. Increased upper beam use in poorly lit environments, such as rural roadways, may allow drivers increased time to identify roadway hazards (such as animals) and to stop, slow down, or avoid a collision.

In addition, the impact of added artificial light on wildlife located near roadways would depend on where and how long the additional illumination occurs, whether wildlife is present within a distance to detect the light, and the sensitivity of wildlife to the illumination level of the added light. Wildlife species located near active roadways have likely acclimated to the light produced by passing vehicles, including light associated with upper beams (which would be the same under the proposal in terms of brightness, directionality, and shape as under current regulations). Any additional disruption caused by increased use of upper beams is not feasible to quantify due to the extensive number of variables associated with ADB use and wildlife.

NHTSA is unable to comparatively evaluate the potential light pollution impacts of the rule compared to the other regulatory alternatives (ECE requirements and SAE J3069). For example, the rule requires that the area of unreduced intensity meet the upper beam minima and the area of reduced intensity meet the lower beam minima. The SAE standard only requires that the area of unreduced intensity meet the lower beam minima. However, NHTSA also proposes that the area of unreduced intensity may not exceed the upper beam maxima, whereas the SAE standard does not specify any maxima for the undimmed portion. Thus, while the final rule establishes requirements for minimum levels of light, it also limits the maximum level of light in the area of unreduced intensity; both differ from the SAE standard. This combined with the wide variations still permitted under the final rule and the SAE standard make it difficult to compare them with any level of certainty.

[236] National Park Service, Light Pollution. *https://www.nps.gov/subjects/nightskies/lightpollution.htm* (last accessed Sept. 26, 2018).

[237] Chepesiuk, R. 2009. Missing the Dark: Health Effects of Light Pollution. *Environmental Health Perspectives,* 117(1), A20–A27.

[238] *Id.*

[239] NPS, Light Pollution Sources. *https://www.nps.gov/subjects/nightskies/sources.htm* (last accessed Sept. 26, 2018).

However, to the degree to which ABD systems would function similarly under each of those standards, the environmental impacts would be anticipated to be similar.

Agencies and Persons Consulted

This preamble describes the various materials, persons, and agencies consulted in the development of the proposal.

Finding of No Significant Impact

I have reviewed this EA. Based on the EA, I conclude that any of the impacts anticipated to result from the alternatives under consideration will not have a significant effect on the human environment and that a ''finding of no significant impact'' is appropriate. This statement constitutes the agency's ''finding of no significant impact,'' and an environmental impact statement will not be prepared. 40 CFR 1501.6(a).

Executive Order 12988 (Civil Justice Reform)

With respect to the review of the promulgation of a new regulation, section 3(b) of Executive Order 12988, ''Civil Justice Reform'' (61 FR 4729, February 7, 1996) requires that Executive agencies make every reasonable effort to ensure that the regulation: (1) Clearly specifies the preemptive effect; (2) clearly specifies the effect on existing Federal law or regulation; (3) provides a clear legal standard for affected conduct, while promoting simplification and burden reduction; (4) clearly specifies the retroactive effect, if any; (5) adequately defines key terms; and (6) addresses other important issues affecting clarity and general draftsmanship under any guidelines issued by the Attorney General. This document is consistent with that requirement.

Pursuant to this Order, NHTSA notes as follows. The issue of preemption is discussed above in connection with E.O. 13132. NHTSA notes further that there is no requirement that individuals submit a petition for reconsideration or pursue other administrative proceeding before they may file suit in court.

Regulatory Flexibility Act

Pursuant to the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.,* as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996), whenever an agency is required to publish an NPRM or final rule, it must prepare and make available for public comment a regulatory flexibility analysis (RFA) that describes the effect of the rule on small entities (*i.e.,* small businesses, small organizations, and small governmental jurisdictions). The Small Business Administration's regulations at 13 CFR part 121 define a small business, in part, as a business entity ''which operates primarily within the United States.'' (13 CFR 121.105(a)). No regulatory flexibility analysis is required if the head of an agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. The SBREFA amended the Regulatory Flexibility Act to require Federal agencies to provide a statement of the factual basis for certifying that a rule will not have a significant economic impact on a substantial number of small entities.

NHTSA has considered the effects of this final rule under the Regulatory Flexibility Act. According to 13 CFR 121.201, the Small Business Administration's size standards regulations used to define small business concerns, manufacturers of the vehicles covered by this final rule would fall under North American Industry Classification System (NAICS) No. 336111, *Automobile Manufacturing,* which has a size standard of 1,500 employees or fewer.

NHTSA estimates that there are six small light vehicle manufacturers in the U.S. We estimate that there are eight headlamp manufacturers that could be impacted by this rule. I certify that this rule will not have a significant economic impact on a substantial number of small entities. Most of the affected entities are not small businesses. The rule will not establish a mandatory requirement on regulated persons.

National Technology Transfer and Advancement Act and 1 CFR Part 51

Under the National Technology Transfer and Advancement Act of 1995 (NTTAA),[240] ''all Federal agencies and departments shall use technical standards that are developed or adopted by voluntary consensus standards bodies, using such technical standards as a means to carry out policy objectives or activities determined by the agencies and departments.'' [241] However, if the use of such technical standards would be ''inconsistent with applicable law or otherwise impractical, a Federal agency or department may elect to use technical standards that are not developed or adopted by voluntary consensus standards bodies[.]'' [242] Voluntary consensus standards are technical standards (*e.g.,* materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by voluntary consensus standards bodies such as SAE. The NTTAA directs the agency to provide Congress, through OMB, explanations when the agency decides not to use available and applicable voluntary consensus standards. Circular A–119 directs that evaluating whether to use a voluntary consensus standard should be done on a case-by-case basis.[243] An agency should consider, where applicable, factors such as the nature of the agency's statutory mandate and the consistency of the standard with that mandate.[244]

SAE has published a voluntary consensus standard (SAE J3069 JUN2016) for ADB systems.[245] The Competitive Enterprise Institute (CEI), in its comments, specifically referenced the NTTAA, arguing that the NPRM unnecessarily departed from SAE J3069.

NHTSA has modified the proposal to more closely follow SAE J3069 where warranted, but to deviate from that standard where necessary. The most important of these changes were specifying stationary test fixtures instead of dynamic stimulus vehicles and substantially simplifying the number and complexity of the test scenarios. However, there are several aspects of the final rule for which NHTSA ultimately concluded that deviation from SAE J3069 is warranted because SAE J3069 did not adequately address glare or visibility. The major differences are summarized in Section VIII.O, Regulatory Alternatives. The preceding sections of this document discuss in detail the ways in which the final rule follows and differs from SAE J3069, and explain why we believe these departures are justified.

The CIE 1931 Chromaticity Diagram was previously approved for incorporation by reference in the section where it appears as of February 6, 2012.

Paperwork Reduction Act

Under the Paperwork Reduction Act of 1995 (PRA) (44 U.S.C. 3501, *et seq.*), Federal agencies must obtain approval from the Office of Management and Budget (OMB) for each collection of information they conduct, sponsor, or require through regulations. This

[240] National Technology Transfer and Advancement Act of 1995, Public Law 104–113, 110 Stat. 775 (1996).

[241] *Id.* at § 12(d)(1).

[242] *Id.* at § 12(d)(3).

[243] Office of Management and Budget, Circular No. A–119, ¶ 5(a)(i), Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities (Jan. 26, 2016).

[244] *Id.*

[245] SAE has recently published a revised version, SAE J3069 MAR2021.

rulemaking modifies two existing information collection requirements. First, this rulemaking modifies the requirements for manufacturers to provide instructions for operating semiautomatic headlamp switching devices. Prior to this final rule, the standard required manufacturers to provide instructions on how to operate the device correctly, including: How to turn the automatic control on and off; how to adjust the sensitivity control; and any other specific instructions applicable to the device. This rule modifies the requirement by excluding ADB systems from the requirement to provide instructions on how to adjust the sensitivity control if they are not equipped with a sensitivity control. The rule also modifies the requirements regarding providing instructions for vehicle headlamp aiming devices (VHAD). Prior to this rule, the standard required manufacturers to provide instructions advising that the headlighting system is properly aimed if the appropriate vertical plane (as defined by the vehicle manufacturer) is perpendicular to both the longitudinal axis of the vehicle, and a horizontal plane when the vehicle is on a horizontal surface, and the VHAD is set at ''0'' vertical and ''0'' horizontal. The final rule changes the standard to require manufacturers to provide instructions advising the vehicle owner what to do if the headlighting system requires aiming using the VHAD.

NHTSA is separately publishing a notice requesting comment on NHTSA's intention to request approval for a modification to its previously approved information collection request titled ''Consolidated Vehicle Owner's Manual Requirements for Motor Vehicles and Motor Vehicle Equipment.'' The document (Docket Number: NHTSA–2021–0059) will provide details about the burden associated with the information collection and will provide a 60-day comment period.

Unfunded Mandates Reform Act

The Unfunded Mandates Reform Act of 1995 (Pub. L. 104–4) (UMRA) requires agencies to prepare a written assessment of the costs, benefits, and other effects of proposed or final rules that include a Federal mandate likely to result in the expenditures by States, local or tribal governments, in the aggregate, or by the private sector, of more than $100 million annually (adjusted annually for inflation with base year of 1995). Adjusting this amount by the implicit gross domestic product price deflator for 2016 results in $148 million (111.416/75.324 = 1.48). The assessment may be included in conjunction with other assessments, as it is here.

This rule is not likely to result in expenditures by State, local or tribal governments of more than $148 million annually.

UMRA requires the agency to select the ''least costly, most cost-effective or least burdensome alternative that achieves the objectives of the rule.'' As discussed above, the agency considered alternatives to the final rule and has concluded that the requirements are the most cost-effective alternatives that achieve the objectives of the rule.

Regulation Identifier Number (RIN) 2127–AL83

The Department of Transportation assigns a regulation identifier number (RIN) to each regulatory action listed in the Unified Agenda of Federal Regulations. The Regulatory Information Service Center publishes the Unified Agenda in April and October of each year. You may use the RIN contained in the heading at the beginning of this document to find this action in the Unified Agenda.

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Anyone is able to search the electronic form of all documents received into any of our dockets by the name of the individual submitting the document (or signing it, if submitted on behalf of an association, business, labor union, etc.). You may review DOT's complete Privacy Act Statement in the **Federal Register** published on April 11, 2000, (Volume 65, Number 70; Pages 19477–78) or you may visit *www.dot.gov/privacy.html.*

Appendices to the Preamble

Appendix A. Comparison of Oncoming Glare Limits to Table XIX Right-Side Photometric Maxima

To analyze the dynamic track test procedure requirements in the narrow right-side region of the beam from 1R to 3R and compare it to the current Table XIX requirements (particularly .5 U, 1R–3R, which has a minimum of 500 cd and a maximum of 2,700 cd), the agency calculated the horizontal angle for each headlamp (right and left) at each extreme of each right curve. See Figure A.1. These calculations assume a headlamp mounting height of 0.4 m below the oncoming photometer height (1.1 m above ground), or a headlamp height of 0.7 m above the ground. Additionally, they assume a headlamp separation distance of 1.1 m and a lane width of 3.66 m.

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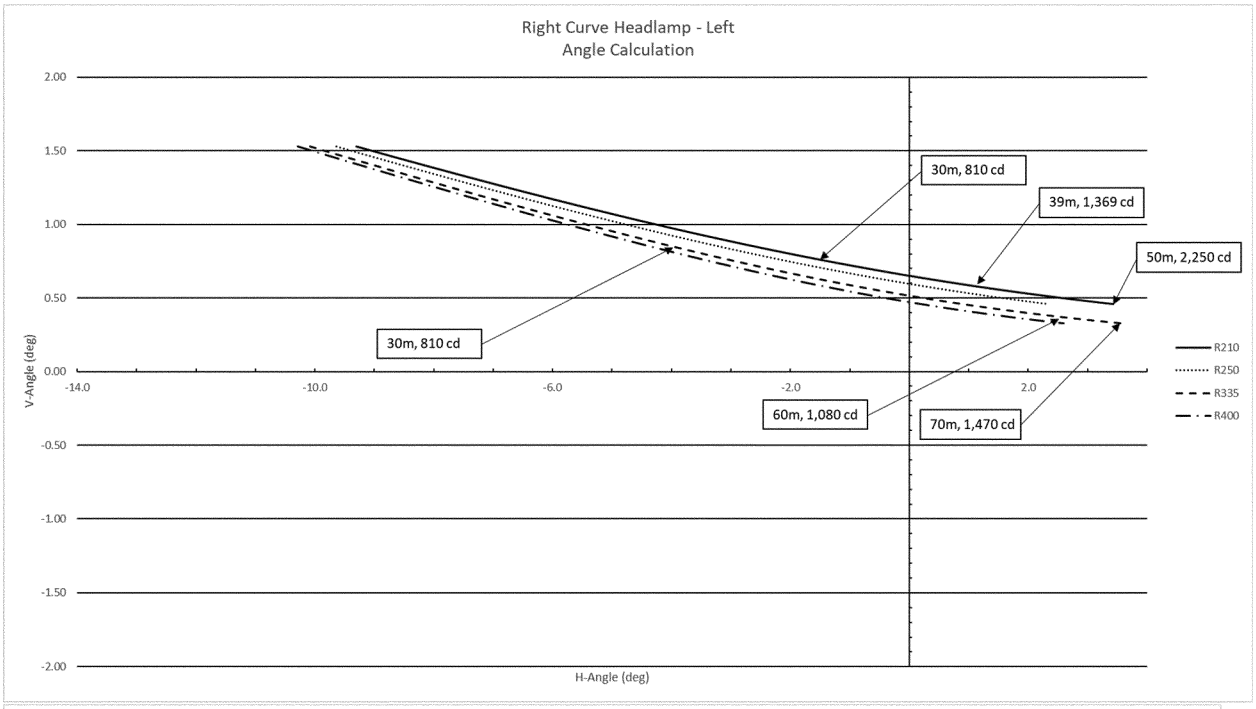
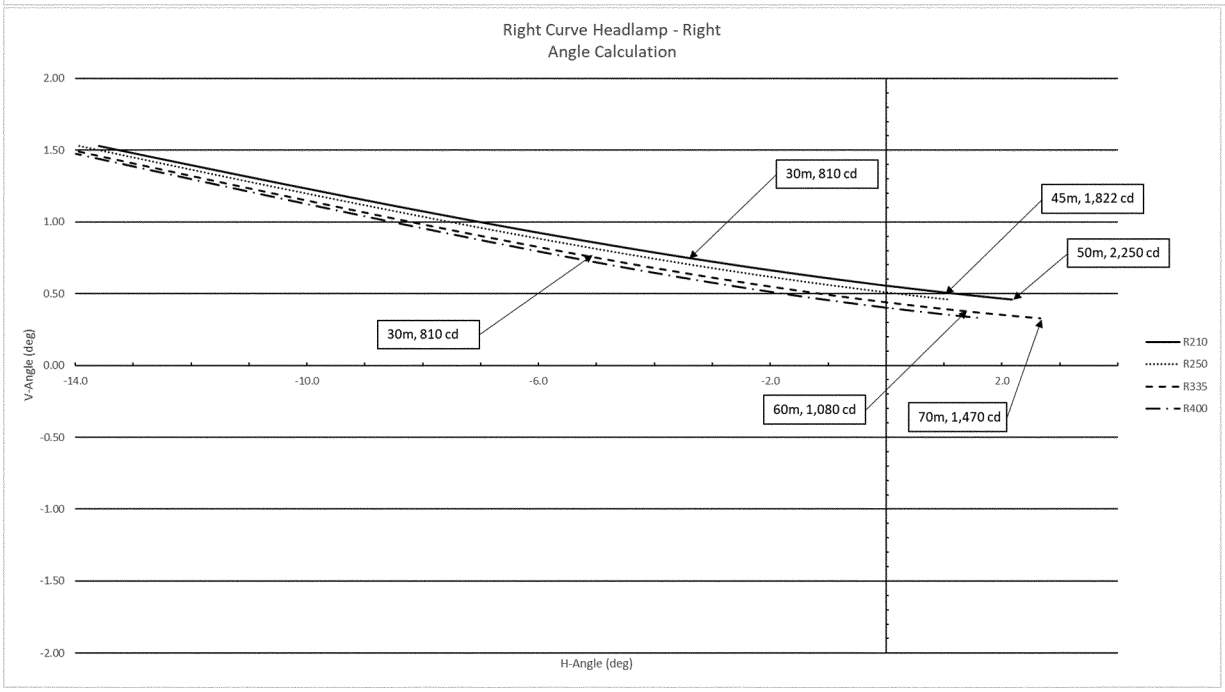
Figure A.1. Horizontal angle for each headlamp (right and left) at each extreme of each right curve





Left Headlamp Positive Horizontal Angle are Right										
Distance	Max illuminance	R210		R250		R335		R400		cd per Lamp
		V (UP)	H	V (UP)	H	V (UP)	H	V (UP)	H	
15	3.1	1.53	-9.31	1.53	-9.64	1.53	-10.08	1.53	-10.29	349
29	3.1	0.79	-1.89	0.79	-2.53	0.79	-2.53	0.79	-3.78	1304
30	1.8	0.76	-1.56	0.76	-2.22	0.76	-2.22	0.76	-3.51	810
50	1.8	0.46	3.43	0.46	2.34					2250
59	1.8					0.39	2.17	0.39	1.35	3133
60	0.6					0.38	2.31	0.38	1.47	1080
70	0.6					0.33	3.57	0.33	2.59	1470

Right Headlamp Positive Horizontal Angle are Right										
Distance	Max illuminance	R210		R250		R335		R400		Intensity per lamp
		V (UP)	H	V (UP)	H	V (UP)	H	V (UP)	H	
15	3.1	1.53	-13.60	1.53	-13.93	1.53	-14.38	1.53	-14.60	349
29	3.1	0.79	-4.07	0.79	-4.71	0.79	-4.71	0.79	-5.96	1304
30	1.8	0.76	-3.67	0.76	-4.32	0.76	-4.32	0.76	-5.62	810
50	1.8	0.46	2.17	0.46	1.08					2250
59	1.8					0.39	1.10	0.39	0.28	3133
60	0.6					0.38	1.25	0.38	0.42	1080
70	0.6					0.33	2.67	0.33	1.69	1470

For the medium radius, right curve, the most stringent angle toward the right side of the beam pattern will occur on the 210 m curve at 2.17 (right lamp) and 3.42 (left lamp) degrees right and 0.46U (close to 0.5U). As Stanley pointed out, this is very close to the 0.5U, 1R–3R line, for which Table XIX specifies a minimum of 500 cd and a maximum of 2,700 cd. The per lamp maximum of 2,250 cd implied by the applicable oncoming glare limit (1.8 lux) is slightly more stringent than 2,700 cd.

For the large radius right curve, the most stringent angle toward the right side of the beam pattern will occur on the 335 m curve at 2.67 (right lamp) and 3.57 (left lamp) degrees right and 0.33U (below the 0.5U line). This angle (which is dependent on the mounting height of the lamps) is below the 0.5U, 1R–3R line. The implied maximum of 1,470 per lamp is more stringent than 2,700 cd.

Appendix B. Example of Laboratory Photometric Testing of Adaptive Driving Beam

As explained in the preamble, in conducting its compliance testing, NHTSA will request information from the manufacturer on how to power and control the headlamps. To test the adaptive driving beam, we will activate a headlamp in the goniometer according to the manufacturer's instructions to produce an adaptive driving beam pattern that is consistent with an ADB pattern that would appear in the real-world with areas of reduced intensity, unreduced intensity, and/or transition zone(s). Specific patterns will conform to any real-world scenario determined by NHTSA. The ADB pattern generated will result in light directed toward all the test points in Tables XVIII and XIX. The issue then becomes which fixed test point falls within an area of reduced intensity, an area of unreduced intensity, or a transition zone. NHTSA will have manufacturers identify the portion(s) of the adaptive beam are areas of reduced intensity and which are areas of unreduced intensity. The areas of reduced intensity must conform to the requirements for the test points in Table XIX that correspond to that area of reduced intensity. The area of unreduced intensity must conform to the requirements for the test points in Table XVIII that correspond to that area of unreduced intensity. Procedures for determining the transition for lower beams (similar to how the cutoff is determined, *i.e.,* a scan) can be used to determine whether the transition zone exceeds 1 degree.

For example, NHTSA could request from the manufacturer information on powering the headlamp and controlling it such that an area of reduced intensity area is centered horizontally around 0.5U 1.2R. A hypothetical isocandela pattern is provided in Table B.1. produced by the headlamp (simplified to a resolution of 0.1 degree for ease of visualization).

Table B.1. Photometric Testing Example

		Horizontal Angle									
		-0.4	**-0.3**	**-0.2**	**-0.1**	**0.0**	**0.1**	**0.2**	**0.3**	**0.4**	**0.5**
Vertical Angle	**3.5**	13544	12076	10608	9141	7673	6205	4737	3270	1802	334
	3.4	14410	12848	11287	9726	8164	6603	5042	3480	1919	357
	3.3	15276	13621	11966	10311	8656	7001	5346	3691	2036	381
	3.2	16142	14393	12645	10896	9147	7399	5650	3902	2153	404
	3.1	17008	15166	13323	11481	9639	7797	5954	4112	2270	428
	3.0	17874	15938	14002	12066	10130	8195	6259	4323	2387	451
	2.9	18740	16710	14681	12651	10622	8592	6563	4533	2504	474
	2.8	19606	17483	15360	13237	11114	8990	6867	4744	2621	498
	2.7	20472	18255	16039	13822	11605	9388	7172	4955	2738	521
	2.6	21338	19028	16717	14407	12097	9786	7476	5165	2855	545
	2.5	22204	19800	17396	14992	12588	10184	7780	5376	2972	568
	2.4	23070	20573	18075	15577	13080	10582	8084	5587	3089	592
	2.3	23936	21345	18754	16162	13571	10980	8389	5797	3206	615
	2.2	24802	22117	19433	16748	14063	11378	8693	6008	3323	638
	2.1	25668	22890	20111	17333	14554	11776	8997	6219	3440	662
	2.0	26534	23662	20790	17918	15046	12174	9302	6429	3557	685
	1.9	28081	25040	21998	18957	15915	12874	9833	6791	3750	709
	1.8	29628	26417	23206	19996	16785	13574	10364	7153	3943	732
	1.7	31174	27794	24414	21035	17655	14275	10895	7515	4135	755
	1.6	32721	29172	25623	22073	18524	14975	11426	7877	4328	779
	1.5	34267	30546	26825	23105	19384	15663	11942	8221	4500	779
	1.4	35814	31921	28028	24136	20243	16350	12458	8565	4672	780
	1.3	37360	33291	29222	25153	21083	17014	12945	8875	4806	737
	1.2	38907	34661	30415	26169	21923	17678	13432	9186	4940	694
	1.1	40454	36031	31608	27185	22762	18339	13916	9493	5070	647
	1.0	42000	37402	32804	28205	23607	19009	14411	9812	5214	616
	0.9	43593	38814	34035	29256	24477	19698	14918	10139	5360	581
	0.8	45120	40167	35215	30262	25309	20357	15404	10452	5499	546
	0.7	46647	41521	36394	31268	26142	21016	15890	10764	5638	512
	0.6	48173	42874	37574	32275	26975	21675	16376	11076	5777	477
	0.5	49700	44273	38847	33420	27994	22567	17141	11714	6287	861
	0.4	51227	45595	39964	34333	28702	23070	17439	11808	6177	545
	0.3	52753	47156	41559	35963	30366	24769	19172	13575	7978	2381
	0.2	54280	48434	42587	36741	30895	25048	19202	13355	7509	1663
	0.1	56069	50251	44433	38616	32798	26980	21163	15345	9528	3710
	0.0	57857	52068	46279	40491	34702	28913	23124	17335	11546	5757

		Horizontal Angle										
		0.6	**0.7**	**0.8**	**0.9**	**1.0**	**1.1**	**1.2**	**1.3**	**1.4**	**1.5**	**1.6**
Vertical Angle	**3.5**	345	355	365	376	376	376	376	375	375	375	375
	3.4	360	380	392	403	403	403	403	403	403	403	403
	3.3	386	406	418	431	431	431	431	431	431	430	430
	3.2	410	431	445	459	459	458	458	458	458	458	458
	3.1	435	457	472	486	486	486	486	486	486	486	486
	3.0	463	482	498	514	514	514	514	513	513	513	513
	2.9	498	508	525	541	541	541	541	541	541	541	541
	2.8	530	533	551	569	569	569	569	569	569	569	568

	2.7	550	559	578	597	596	596	596	596	596	596	596
	2.6	580	584	604	624	624	624	624	624	624	624	624
	2.5	605	610	631	652	652	652	652	652	651	651	651
	2.4	628	635	657	679	679	679	679	679	679	679	679
	2.3	655	661	684	707	707	707	707	707	707	707	707
	2.2	680	686	710	734	734	734	734	734	734	734	734
	2.1	705	712	737	762	762	762	762	762	762	762	762
	2.0	735	737	764	790	790	790	790	790	790	790	789
	1.9	760	763	790	817	817	817	817	817	817	817	817
	1.8	785	788	817	845	845	845	845	845	845	845	845
	1.7	810	814	843	872	872	872	872	872	872	872	872
	1.6	835	839	870	900	900	900	900	900	900	900	900
	1.5	838	840	870	900	1027	1027	1027	1027	1027	1027	1027
	1.4	838	840	870	900	900	914	929	943	957	971	986
	1.3	790	792	820	848	856	869	881	894	906	919	931
	1.2	740	745	771	796	813	823	834	845	855	866	877
	1.1	696	696	720	744	769	778	787	796	804	813	822
	1.0	655	659	681	703	725	732	739	746	754	761	768
	0.9	620	621	641	661	681	687	692	697	703	708	713
	0.8	581	583	601	619	638	641	645	648	652	655	659
	0.7	540	545	561	577	594	596	597	599	601	603	604
	0.6	503	506	521	535	550	550	550	550	550	550	550
	0.5	930	930	965	1000	550	550	550	550	550	550	550
	0.4	582	582	600	2600	2600	2600	2600	2600	2600	2600	2600
	0.3	2611	2611	2725	4504	4783	5061	5340	5644	5419	5194	4969
	0.2	3788	3788	4851	6408	6965	7523	8080	8689	8239	7789	7339
	0.1	5887	5887	6976	8312	9148	9984	10820	11733	11058	10383	9708
	0.0	7987	7987	9101	10216	11331	12445	13560	14778	13878	12978	12078

		Horizontal Angle									
		1.7	**1.8**	**1.9**	**2.0**	**2.1**	**2.2**	**2.3**	**2.4**	**2.5**	**2.6**
Vertical Angle	**3.5**	375	375	1681	2987	4293	5599	6905	8211	9517	10823
	3.4	403	402	1793	3184	4575	5966	7357	8748	10139	11530
	3.3	430	430	1906	3382	4858	6334	7809	9285	10761	12237
	3.2	458	458	2019	3579	5140	6701	8262	9822	11383	12944
	3.1	485	485	2131	3777	5422	7068	8714	10359	12005	13651
	3.0	513	513	2244	3974	5705	7435	9166	10896	12627	14357
	2.9	541	541	2356	4172	5987	7802	9618	11433	13249	15064
	2.8	568	568	2469	4369	6269	8170	10070	11970	13871	15771
	2.7	596	596	2581	4566	6552	8537	10522	12507	14493	16478
	2.6	624	624	2694	4764	6834	8904	10974	13044	15114	17185
	2.5	651	651	2806	4961	7116	9271	11426	13581	15736	17891
	2.4	679	679	2919	5159	7399	9638	11878	14118	16358	18598
	2.3	707	707	3031	5356	7681	10006	12331	14655	16980	19305
	2.2	734	734	3144	5554	7963	10373	12783	15192	17602	20012
	2.1	762	762	3256	5751	8246	10740	13235	15729	18224	20719
	2.0	789	789	3369	5948	8528	11107	13687	16266	18846	21425
	1.9	817	817	3481	6146	8810	11475	14139	16803	19468	22132
	1.8	845	845	3594	6343	9093	11842	14591	17340	20090	22839
	1.7	872	872	3707	6541	9375	12209	15043	17877	20712	23546
	1.6	900	900	3819	6738	9657	12576	15495	18414	21333	24252
	1.5	1027	1027	4020	7013	10006	12999	15992	18984	21977	24970
	1.4	1000	1014	4097	7179	10261	13343	16426	19508	22590	25673

	1.3	944	956	4133	7310	10486	13663	16840	20016	23193	26370
	1.2	888	898	4169	7440	10712	13983	17254	20525	23796	27067
	1.1	831	840	4206	7571	10937	14302	17668	21033	24399	27764
	1.0	775	782	4173	7564	10955	14346	17737	21127	24518	27909
	0.9	719	724	4140	7557	10973	14389	17805	21221	24638	28054
	0.8	663	666	4283	7899	11516	15132	18749	22365	25982	29598
	0.7	606	608	4425	8242	12059	15876	19692	23509	27326	31143
	0.6	550	550	4567	8584	12602	16619	20636	24653	28671	32688
	0.5	550	550	4761	8972	13183	17394	21606	25817	30028	34239
	0.4	2600	2600	6777	10954	15132	19309	23486	27663	31841	36018
	0.3	4744	4519	8677	12835	16993	21151	25309	29466	33624	37782
	0.2	6889	6439	10577	14716	18854	22993	27131	31270	35408	39547
	0.1	9033	8358	12477	16596	20716	24835	28954	33073	37192	41311
	0.0	11178	10278	14302	18327	22352	26377	30401	34426	38451	42475

		Horizontal Angle			
		2.7	**2.8**	**2.9**	**3.0**
Vertical Angle	**3.5**	12129	11998	11867	11735
	3.4	12921	12780	12638	12496
	3.3	13713	13561	13409	13257
	3.2	14504	14342	14180	14018
	3.1	15296	15124	14952	14779
	3.0	16088	15905	15723	15540
	2.9	16880	16687	16494	16301
	2.8	17671	17468	17265	17063
	2.7	18463	18250	18037	17824
	2.6	19255	19031	18808	18585
	2.5	20046	19813	19579	19346
	2.4	20838	20594	20350	20107
	2.3	21630	21376	21122	20868
	2.2	22421	22157	21893	21629
	2.1	23213	22939	22664	22390
	2.0	24005	23720	23435	23151
	1.9	24796	24502	24207	23912
	1.8	25588	25283	24978	24673
	1.7	26380	26065	25749	25434
	1.6	27172	26846	26520	26195
	1.5	27963	27627	27292	26956
	1.4	28755	28409	28063	27717
	1.3	29547	29190	28834	28478
	1.2	30338	29972	29605	29239
	1.1	31130	30753	30377	30000
	1.0	31300	30867	30433	31000
	0.9	31470	30980	30490	30000
	0.8	33215	32727	32238	31750
	0.7	34960	34473	33987	33500
	0.6	36705	36220	35735	35250
	0.5	38450	37967	37483	37000
	0.4	40195	39713	39232	38750
	0.3	41940	41460	40980	40500

	0.2	43685	43207	42728	42250
	0.1	45430	44953	44477	44000
	0.0	46500	46000	45500	45000

In this area of reduced intensity, NHTSA would check to ensure that the applicable Table XIX minima and maxima are met. For this area of the beam pattern, we would check the following lines within the lower beam requirements.

1.5U 1R to 3R Min 200 cd
1.5U 1R to R Max 1,400 cd
0.5U 1R to 3R Max 2,700 cd

NHTSA would scan along 1.5 U to determine at what location the 1.5 U line begins to fail the lower beam photometric requirements. This establishes the beginning of the transition zone. In the hypothetical case shown above, the lower beam meets these requirements at 1.2R [1,027] (where we asked for an area of reduced intensity) and continues to comply at 1.3R [1,027] continuing right until 1.5U, 1.9R [4,020] where it fails the Maximum 1,400 cd limit. So, for this case the transition zone begins at 1.9 R. Similarly, the 0.5 U line complies with the lower beam at 1.2 R [550 cd]. The 0.5 U line continues to comply until, again, 1.9R. Considering this, the transition zone begins at 1.9R and can continue for no more than 1 degree, or through the location of 2.9R. As such, upper beam points extending past this location must be met. As such, the beam pattern must meet the upper beam test point 1U, 3R which requires a minimum of 5,000 cd for a UB2 lamp. In this case, the value is 31,000 and therefore compliant with the area of unreduced intensity tested at that location. Additionally, the upper beam point H, 3R minimum of 15,000 must be met along with all the upper beam points at 6R, 9R, 12R and all points left of V. A 0.25 degree re-aim is permitted in S14.2.5.5.

Considering the left edge of the area of reduced intensity, we would scan along the 1.5 U and 0.5 U right side lines and discover that the transition zone begins at 0.4 degrees R (traveling to the left). As such, the transition zone is permitted to extend 1 degree to the left from the left edge, or through 0.5 degrees L. The ADB pattern is not required to produce a compliant upper beam at the test point location of H-V as that may still be within the transition zone. If, however, an ADB beam pattern is produced with the left edge of the transition zone beginning at an angle greater than 1 degree R, the upper beam H-V point must be met for the area of unreduced intensity.

This example also demonstrates how, although no photometry requirements apply to the transition zone, the photometry in the transition zone is not unconstrained. In this example, the edge of the area of reduced intensity is at 1.8R. That means that it must be at least 200 cd but not more than 1400 cd. At the 3R point it must be at least 5,000 cd. The transition zone will be between these two points. With respect to potential concerns, illuminance above 1,400 cd is not the concern, some exceedance is expected as the light transitions. It might be a concern if the intensity drops below 200 cd, however, this is very unlikely. As the commenters point out, it is difficult physically, and not preferred by drivers to have such extreme cutoffs. There is no reason for a manufacturer to allow the intensity to drop below 200 cd through the transition zone.

Appendix C. ADB Performance With Motorcycle Test Fixture

Our testing showed consistently poor performance when the ADB system was tested against the motorcycle fixture and lamps we are finalizing.[246] See Table C.1. The agency is concerned that if ADB systems do not adequately react to motorcycles in the real world that any safety benefits provided by ADB introduction could be negated by additional glare related risk to motorcyclists. Many of the failures listed below are not attributable to headlamp beam pattern design but are fundamental failures of the ADB system to react to the motorcycle lamps installed on the test fixture.

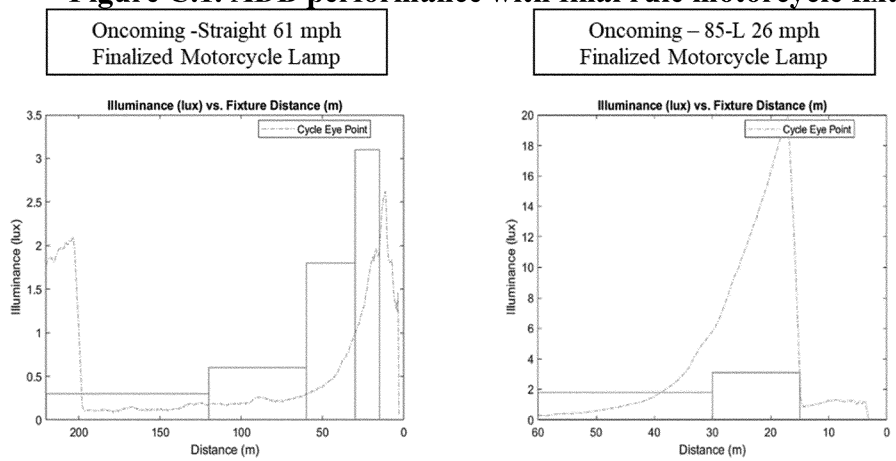
TABLE C.1—ADB PERFORMANCE WITH FINAL RULE MOTORCYCLE FIXTURE

			15.0–29.9	30.0–59.9	60.0–119.9	120.0–220.0
Oncoming	Straight	61	PASS	PASS	PASS	FAIL.
Same Direction	Straight	61	PASS	PASS	PASS.	
Oncoming	85-L	26	FAIL	FAIL.		
Oncoming	210-L	41	PASS	FAIL	FAIL	PASS.
Same Direction	210-L	41	FAIL	FAIL	FAIL.	
Oncoming	210-R	41	PASS	FAIL.		
Oncoming	335-L	51	PASS	PASS	FAIL	FAIL.
Oncoming	335-R	51	PASS	FAIL	FAIL.	

The plots below (Figure C.1) are representative of the types of failures we observed when testing. That is, the ADB system was often late in reacting to the test fixture.

[246] As mentioned earlier, in its recent revisions to SAE J3069, SAE revised the specifications for the placement of the illuminance meters (corresponding to two side-view mirrors) on the same direction motorcycle fixture so that they are now 0.4 m from the centerline of the rear position lamp as opposed to 0.2 m. This change would not be expected to meaningfully impact our test results because the vehicle we tested did not produce a particularly narrow reduced area as a result of recognizing a motorcycle as compared to a passenger car. As such, a 200 mm horizontal difference would have no meaningful impact on the applicability of the research.

Figure C.1. ADB performance with final rule motorcycle fixture

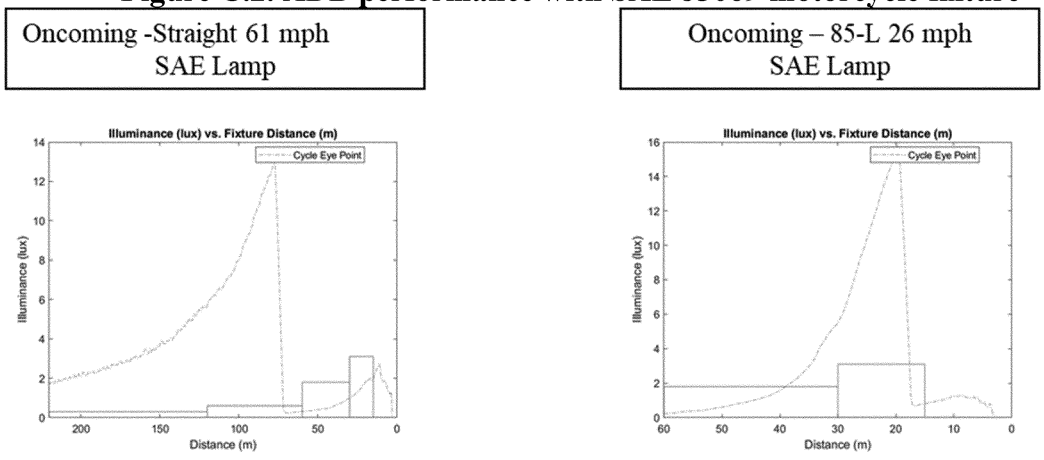


While we are confident in the realism of the finalized test procedure, we did consider potential sources of variation within the test to see if the safety need and practicality of the test could be better optimized. As part of this investigation, we considered the lamps that are installed on the fixture and compared the ADB systems performance using the lamps specified in SAE J3069. See Table C.2 and Figure C.1. The motorcycle lamps we have chosen are not the source of the system's lack of performance as similar failures were observed when using the SAE specified lamps.

TABLE C.2—ADB PERFORMANCE WITH SAE J3069 MOTORCYCLE FIXTURE

			15.0–29.9	30.0–59.9	60.0–119.9	120.0–220.0
Oncoming	Straight	61	PASS	PASS	FAIL	FAIL.
Same Direction	Straight	61	PASS	PASS	PASS.	
Oncoming	85-L	26	FAIL	FAIL.		
Oncoming	210-L	41	PASS	PASS	FAIL	PASS.
Same Direction	210-L	41	FAIL	FAIL	FAIL.	
Oncoming	210-R	41	PASS	PASS.		
Oncoming	335-L	51	PASS	PASS	FAIL	FAIL.
Oncoming	335-R	51	PASS	PASS	FAIL.	

Figure C.2. ADB performance with SAE J3069 motorcycle fixture



We also considered if the fixture itself was a contributing factor in the system's lack of performance when encountering motorcycles. This does not seem to be the case based on the 2015 research, which exposed those ADB systems, installed to a complete three-wheel motorcycle. Some of those vehicles also demonstrated a lack of ability to react to the motorcycle stimulus. That research observed that ''Motorcycle scenario values . . . show, on average, the Audi headlighting system produced substantially higher glare in the 30 to 120 m range, up to approximately 9 times greater than that seen for lower beam mode (quotient values ranging from 6.13 to 9.69) and ''preceding motorcycle scenarios appeared to challenge ADB's ability to maintain glare within derived lower beam limit values. In both the stationary and moving preceding motorcycle scenarios, ADB mode for all four test vehicles showed illuminance levels exceeding lower beam levels and exceeding lower

beam glare limit values in at least one distance range.'' [247]

Although, as discussed previously, we do not believe that the SAE test adequately replicates the real world, we also considered how well the vehicle we tested performed on the SAE J3069 test. Overall, it performed better against the SAE J3069 test then the finalized test, however it did have dramatic failures on that test well. Figure C.3 depicts a sample of these failures.

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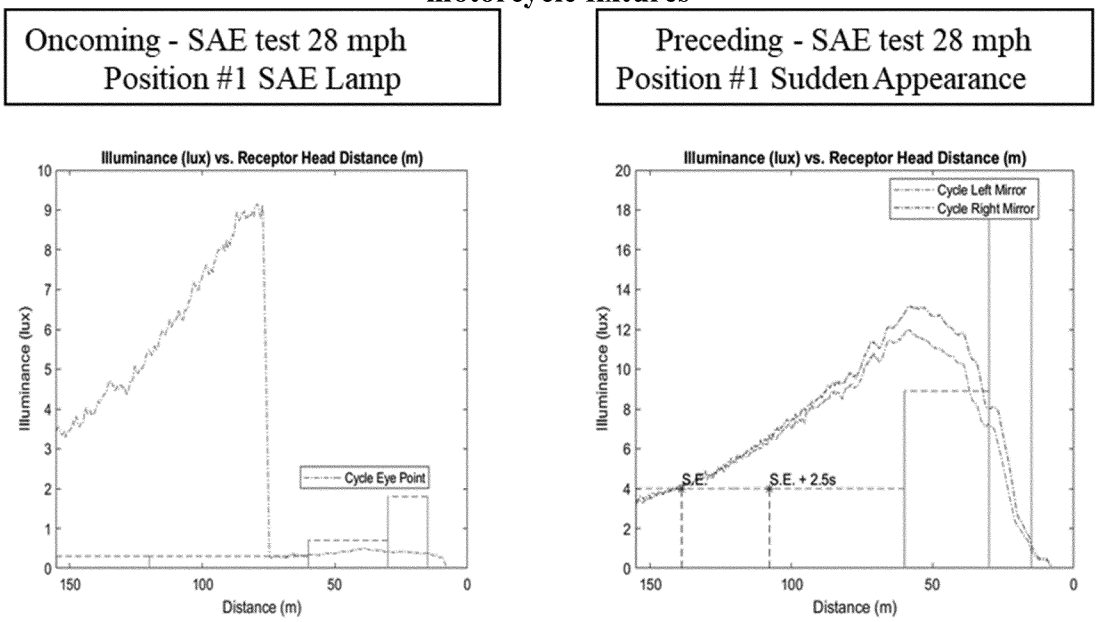
Figure C.3. Examples of ADB failures when tested against the SAE J3069 motorcycle fixtures



In conclusion, the agency has determined that ADB systems must protect motorcyclist against increases in glare in the same way as other motor vehicle drivers. We have considered the ability of ADB systems to achieve the finalized level of performance but are unwilling to degrade overall safety. As such, we are finalizing today's rule to include a fixture with a specified motorcycle headlamp and a taillamp and testing ADB systems using the same real-world geometries for the motorcycle fixture as for the car and truck fixture.

Appendix D. List of Comments Cited in Preamble

Commenter	Comment ID
AAA	NHTSA–2018–0090–0158.
Alliance for Automotive Innovation	NHTSA–2018–0090–0219.
Alliance of Automobile Manufacturers	NHTSA–2018–0090–0138.
Association of Global Automakers	NHTSA–2018–0090–0182.
Automotive Lighting North America	NHTSA–2018–0090–0068.
Competitive Enterprise Institute	NHTSA–2018–0090–0145.
Consumer Reports	NHTSA–2018–0090–0191.
Ford Motor Company	NHTSA–2018–0090–0162.
General Motors	NHTSA–2018–0090–0181.
GTB—The International Automotive Lighting and Light Signalling Expert Group	NHTSA–2018–0090–0070.
Harley-Davidson Motor Company	NHTSA–2018–0090–0148.
HELLA GmbH & Co. KGaA	NHTSA–2018–0090–0085.
Honda (American Honda Motor Company)	NHTSA–2018–0090–0179.
Insurance Institute for Highway Safety	NHTSA–2018–0090–0149.
International Organization of Motor Vehicle Manufacturers	NHTSA–2018–0090–0089.
Intertek	NHTSA–2018–0090–0143.
Koito Manufacturing Company	NHTSA–2018–0090–0173.
League of American Bicyclists	NHTSA–2018–0090–0157.
Mercedes-Benz USA	NHTSA–2018–0090–0147.
Mobileye, An Intel company	NHTSA–2018–0090–0140.
Montgomery, Bryan	NHTSA–2018–0090–0069.
Motor & Equipment Manufacturers Association	NHTSA–2018–0090–0175.
NAFA Fleet Management Association	NHTSA–2018–0090–0067.
North American Lighting	NHTSA–2018–0090–0163.
Osram Sylvania	NHTSA–2018–0090–0177.
Peterson, Brent	NHTSA–2018–0090–0030.
Robert Bosch	NHTSA–2018–0090–0159.

[247] 2015 ADB Test Report, pp. 109, 114.

Commenter	Comment ID
SAE International	NHTSA–2018–0090–0167.
Seastrunk, Jay	NHTSA–2018–0090–0200.
SL Corporation	NHTSA–2018–0090–0183.
Society of Motor Manufacturers and Traders	NHTSA–2018–0090–0156.
Stanley Electric Company	NHTSA–2018–0090–0189.
Subaru	NHTSA–2018–0090–0217.
Texas Instruments	NHTSA–2018–0090–0161.
Toyota Motor North America	NHTSA–2018–0090–0172.
Transportation Safety Equipment Institute	NHTSA–2018–0090–0193.
Truck and Engine Manufacturers Association	NHTSA–2018–0090–0165.
United Drive-In Theatre Owners Association	NHTSA–2018–0090–0153.
Valeo Lighting Systems	NHTSA–2018–0090–0142.
Victor Hunt	NHTSA–2018–0090–0028.
Volkswagen Group of America	NHTSA–2018–0090–0154.
Zoox	NHTSA–2018–0090–0178.

List of Subjects in 49 CFR Part 571

Imports, Motor vehicle safety, Motor vehicles, and Tires.

In consideration of the foregoing, NHTSA amends 49 CFR part 571 as set forth below.

PART 571—FEDERAL MOTOR VEHICLE SAFETY STANDARDS

■ 1. The authority citation for part 571 of title 49 continues to read as follows:

Authority: 49 U.S.C. 322, 30111, 30115, 30117, 30166; delegation of authority at 49 CFR 1.95.

■ 2. Amend § 571.108 by:
■ a. Adding, in alphabetical order, definitions of ''Adaptive driving beam,'' ''Headlighting system midpoint'' and ''Transition zone'' to paragraph S4;
■ b. Revising the definition of ''Semiautomatic headlamp beam switching device'' in paragraph S4;
■ c. Revising paragraphs S9.4.1, S9.4.1.1, S9.4.1.2, S9.4.1.3, S9.4.1.4, and S9.4.1.5;
■ d. Adding paragraphs S9.4.1.5.1 through S9.4.1.5.3 in numerical order;
■ e. Revising paragraph S9.4.1.6;
■ f. Adding paragraphs S9.4.1.6.1 through S9.4.1.6.5 in numerical order;
■ g. Removing S9.4.1.7;
■ h. Revising the introductory text of paragraph S9.5;
■ i. Revising paragraphs S10.14.1, S10.15.1, S10.16.1, S10.18.8.1.2, and S10.18.8.2.1;
■ j. Adding paragraphs S14.9.3.12 through S14.9.3.12.6.3;
■ k. Revising the entries for ''Lower Beam Headlamps'' and ''Upper Beam Headlamps'' in table I–a and table I–c;
■ l. Adding tables XXI and XXII, and figures 23 through 30 in numerical order; and
■ m. Removing the appendix to the section.

The revisions and additions read as follows:

§ 571.108 Standard No. 108; Lamps, reflective devices, and associated equipment.

* * * * *

S4 Definitions

Adaptive driving beam means a long-range light beam for forward visibility, which automatically modifies portions of the projected light to reduce glare to traffic participants on an ongoing, dynamic basis.

* * * * *

Headlighting system midpoint means the intersection of a horizontal plane through the test vehicle's headlamp light sources, a vertical plane through the test vehicle's headlamp light sources and a vertical plane through the test vehicle's centerline.

* * * * *

Semiautomatic headlamp beam switching device is one which provides either automatic or manual control of beam switching at the option of the driver. When the control is automatic the headlamp beams switch automatically. When the control is manual, the driver may obtain either the lower beam or the upper beam manually regardless of the conditions ahead of the vehicle.

* * * * *

Transition zone means the portion of an adaptive driving beam that occurs between an area of reduced intensity and an area of unreduced intensity.

* * * * *

S9.4.1 *Semiautomatic headlamp beam switching devices.* As an alternative to S9.4, a vehicle may also be equipped with a semiautomatic means of switching beams that complies with 9.4.1.1 though S9.4.1.4 and either 9.4.1.5 (Option 1) or 9.4.1.6 (Option 2).

S9.4.1.1 *Operating instructions.* Each semiautomatic headlamp switching device must include operating instructions to permit a driver to operate the device correctly, including: How to turn the automatic control on and off; how to adjust the sensitivity control (for Option 1 and if provided for Option 2); and any other specific instructions applicable to the device.

S9.4.1.2 *Manual override.* The device must include a means convenient to the driver for switching the beam from the one provided.

S9.4.1.3 *Fail safe operation.* A failure of the automatic control portion of the device must not result in the loss of manual operation and control of the upper and lower beams.

S9.4.1.4 *Automatic dimming indicator.* There must be a convenient means of informing the driver when the device is controlling the headlamps automatically. For headlighting systems certified to Option 1, the device shall not affect the function of the upper beam indicator light.

S9.4.1.5—*Option 1 (Semiautomatic headlamp beam switching devices other than Adaptive Driving Beam systems).*

S9.4.1.5.1 *Lens accessibility.* The device lens must be accessible for cleaning while the device is installed on a vehicle.

S9.4.1.5.2 *Mounting height.* The center of the device lens must be mounted no less than 24 inches above the road surface.

S9.4.1.5.3 *Physical tests.* Each semiautomatic headlamp beam switching device must be designed to conform to all applicable performance requirements of S14.9.3.11.

S9.4.1.6—*Option 2 (Adaptive Driving Beam systems).*

S9.4.1.6.1 The system must be capable of detecting system malfunctions (including but not limited to sensor obstruction).

S9.4.1.6.2 If the system detects a malfunction that prevents the system from operating in automatic mode safely and in conformance with these requirements, the headlighting system must operate in manual mode until the

malfunction is corrected and must provide the driver with a visible warning that the malfunction exists.

S9.4.1.6.3 When operating in manual mode, the system must provide only switching between lower and upper beams as provided in S9.4.

S9.4.1.6.4 When operating in automatic mode, the system must only switch between lower, upper, and adaptive driving beams. The adaptive driving beams must be designed to conform to the requirements of this section.

S9.4.1.6.4.1 The adaptive driving beams must consist only of area(s) of reduced intensity, area(s) of unreduced intensity, and transition zone(s).

S9.4.1.6.4.2 The adaptive driving beams must be designed to conform to the photometry requirements of Table XXI when tested according to S14.9.3.12, and, for replaceable bulb headlighting systems, when using any replaceable light source designated for use in the system.

S9.4.1.6.4.3 In an area of reduced intensity, the adaptive driving beams must be designed to conform to the photometric intensity requirements of Table XIX as specified in Table II for the specific headlamp unit and aiming method, when tested according to the procedure of S14.2.5, and, for replaceable bulb headlighting systems, when using any replaceable light source designated for use in the system.

S9.4.1.6.4.4 In an area of unreduced intensity, the adaptive driving beams must be designed to conform to the photometric intensity requirements of Table XVIII as specified in Table II for the specific headlamp unit and aiming method, when tested according to the procedure of S14.2.5, and, for replaceable bulb headlighting systems, when using any replaceable light source designated for use in the system.

S9.4.1.6.4.5 A transition zone not to exceed 1.0 degree in either the horizontal or vertical direction is permitted between an area of reduced intensity and an area of unreduced intensity. The Table XVIII and Table XIX photometric intensity requirements do not apply in a transition zone, except that the maximum at H–V in Table XVIII as specified in Table II for the specific headlamp unit and aiming method may not be exceeded at any point in a transition zone.

S9.4.1.6.4.6 For vehicle speeds below 32 kph (20 mph), the system must provide only lower beams (unless manually overridden according to S9.4.1.2).

S9.4.1.6.4.7 The adaptive driving beams must not be energized simultaneously with the lower or upper beams except as provided in Table II.

S9.4.1.6.5 The adaptive driving beams may be provided by any combination of headlamps or light sources, provided parking lamps are installed. If parking lamps meeting the requirements of this standard are not required according to Table I and are not installed, the adaptive driving beams may be provided using any combination of headlamps but must include the outermost installed headlamps to show the overall width of the vehicle.

* * * * *

S9.5 *Upper beam headlamp indicator.* Each vehicle must have a means for indicating to the driver when the upper beams of the headlighting system are activated. The upper beam headlamp indicator is not required to be activated when an Adaptive Driving Beam system is operating in automatic mode.

* * * * *

S10.14.1 Installation. An integral beam headlighting system must consist of the correct number of designated headlamp units as specified for the applicable system in Table II–c. The units must have their upper and lower beams activated as specified in Table II–c, and their adaptive driving beams (if so equipped) activated as specified in S9.4.1.6.5. A system must provide in total not more than two upper beams, two lower beams, and, optionally, two adaptive driving beams.

* * * * *

S10.15.1 *Installation.* A replaceable bulb headlighting system must consist of either two or four headlamps as specified for the applicable system in Table II–d. The headlamps must have their upper and lower beams activated as specified in Table II–d, and their adaptive driving beams (if so equipped) activated as specified in S9.4.1.6.5. A system must provide in total not more than two upper beams, two lower beams, and, optionally, two adaptive driving beams, and must incorporate not more than two replaceable light sources in each headlamp.

* * * * *

S10.16.1 *Installation.* A combination headlighting system must consist of the correct number of designated headlamp units as specified for the applicable system in Table II–b. The units must have their upper and lower beams activated as specified in Table II–b, and their adaptive driving beams (if so equipped) activated as specified in S9.4.1.6.5. A system must provide in total not more than two upper beams, two lower beams, and, optionally, two adaptive driving beams. When installed on a motor vehicle, the headlamps (or parts thereof) that provide the lower beam must be of the same type and provide a symmetrical effective projected luminous lens area when illuminated.

* * * * *

S10.18.8.1.2 *Horizontal aim.* The VHAD must include references and scales relative to the longitudinal axis of the vehicle necessary to assure correct horizontal aim for photometry and aiming purposes. A ''0'' mark must be used to indicate alignment of the headlamps relative to the longitudinal axis of the vehicle. In addition, an equal number of graduations from the ''0'' position representing equal angular changes in the axis relative to the vehicle axis must be provided. If the horizontal VHAD is part of an adaptive driving beam system, S10.18.8.1.2.1 through S10.18.8.1.2.4 are not required.

* * * * *

S10.18.8.2.1 Instructions must be provided either on a label permanently affixed to the vehicle adjacent to the VHAD, or in the operator's manual, advising the vehicle owner what to do if the headlighting system requires aiming using the VHAD.

* * * * *

S14.9.3.12 *Test for compliance with adaptive driving beam photometry requirements.*

S14.9.3.12.1 *Test scenarios.*

S14.9.3.12.1.1 Any of the scenarios specified in Table XXII and Figures 27, 28, 29, and 30 may be tested. Where a range of values is specified, the vehicle shall be able to meet the requirements at all values within the range.

S14.9.3.12.1.2 Any speed that conforms to the speeds specified for that test scenario will be selected for the test vehicle. The vehicle will achieve and maintain this speed ± 0.45 m/s (1 mph) prior to reaching, and then throughout, the measurement distance range specified for that scenario. Once the test speed is achieved and maintained, no sudden steering inputs, acceleration, braking, or anything that causes a change in vehicle pitch that affects the results of the test shall occur.

S14.9.3.12.1.3 For test scenarios involving curves, any radius within the allowable range specified for that test scenario may be selected. The curve shall nominally consist of a constant radius path and be referenced to the headlighting system midpoint. The actual path of the test vehicle shall not deviate from the nominal path by more than +/− 0.5 m throughout the measurement distance range.

S14.9.3.12.1.4 The test vehicle shall be driven within the lane and will not change lanes.

S14.9.3.12.1.5 The measurement distance is the linear distance measured from the headlighting system midpoint to the most forward point of the relevant photometric receptor head mounted on the test fixture.

S14.9.3.12.1.6 The illuminance values for each photometer, the instantaneous pitch of the test vehicle, and the measurement distance shall be recorded and synchronized throughout the measurement distance range specified for that scenario.

S14.9.3.12.2 *Compliance criteria.* The maximum calculated illuminance for each measurement distance interval specified in Table XXI that is applicable to the scenario being tested, as determined according to S14.9.3.12.2.1, shall not exceed the applicable maximum illuminance listed in Table XXI.

S14.9.3.12.2.1 The maximum calculated illuminance for each measurement distance interval specified in Table XXI that is applicable to the scenario being tested will be the highest illuminance recorded in that distance interval, excluding any illuminance value(s) that meet any of the following conditions:

(a) A single illuminance value exceeding the applicable maximum illuminance in Table XXI (*i.e.,* the illuminance value is not immediately preceded or followed by an illuminance value exceeding the applicable maximum illuminance); or

(b) consecutive illuminance values occurring over a span of no more than 0.1 seconds exceeding the applicable maximum illuminance in Table XXI; or

(c) any illuminance values collected while the vehicle pitch exceeds the average pitch recorded throughout the entire measurement distance range specified for that scenario in Table XXII by more than 0.3 degrees.

S14.9.3.12.3 *Stimulus test fixtures.* Testing shall be conducted using the stimulus test fixtures specified in this section and Figures 23 through 26.

S14.9.3.12.3.1 *Headlamps.* The headlamps specified in Fig. 23 (Opposite Direction Car/Truck) shall be a right- and left-hand 2018 Ford F–150 Halogen headlamp (part # KL3Z13008C KL3Z13008D) using any replaceable light source designated for use in the system and, separately, a right- and left-hand 2018 Toyota Camry LED headlamp (part # 8111006C40/8115006C40). The headlamps specified in Fig. 25 (Opposite Direction Motorcycle) shall be a 5.75-inch round headlamp kit from a 2018 Harley Davidson Sportster (part #68297–05B) using an HB2 replaceable light source. Each headlamp shall energize the lower beam only, powered at 12.8 volts DC +/− 500 mV when measured at the lamp terminals, and shall have been energized for a minimum of 5 minutes before each test trial. The measurement locations specified in Figures 23 and 25 shall be measured to the optical axis marking of the headlamps.

S14.9.3.12.3.2 *Taillamps.* The taillamps specified in Fig. 24 (Same Direction Car/Truck) shall be a right and left-hand 2018 Ford F–150 incandescent rear combination lamp (part # JL3Z13405H/JL3Z13404H) and, separately, a right and left-hand 2018 Toyota Camry rear combination lamp (part # 81550–06730/81560–06730). The taillamps specified in Fig. 26 (Same Direction Motorcycle) shall be a 2018 Harley Davidson Roadster layback LED taillamp assembly (part #67800355). The taillamps shall be powered at 12.8 volts DC +/− 500 mV when measured at the lamp terminals and shall have been energized for a minimum of 5 minutes before each test trial. The measurement locations specified in Figures 24 and 26 shall be measured to the center of the taillamp.

S14.9.3.12.3.3 *Photometers.* Photometers must be capable of a minimum measurement unit of 0.01 lux. The color response of the photometer must be corrected to that of the 1931 CIE Standard Observer (2-degree) Photopic Response Curve, as shown in the CIE 1931 Chromaticity Diagram (incorporated by reference, see § 571.5), with a cosine correction characteristic within 3%. The photometer lenses on the test fixture shall be clean and free from dirt and debris, and the photometers will be zero-calibrated for each test to account for ambient light. The illuminance values from the photometers shall be collected at a rate of at least 100 Hz and a maximum 25-degree angle of incidence.

S14.9.3.12.3.4 The projection of the fixture lamp's optical axis onto the road surface shall be parallel to a tangent of the road edge at the location of the photometer.

S14.9.3.12.3.5 The test fixture shall be centered in the lane.

S14.9.3.12.4 *Test vehicle preparation.*

S14.9.3.12.4.1 Tires on the test vehicle shall be inflated to the manufacturer's recommended cold inflation pressure ± 7 kPa (1 psi). If more than one recommendation is provided, the tires are inflated to the cold inflation pressure ± 7 kPa (1 psi) that corresponds to the lowest loaded condition listed.

S14.9.3.12.4.2 Before initiating testing, if the test vehicle is equipped with a fuel tank it shall be filled to approximately 100% of capacity with the appropriate fuel and maintained to at least 75% capacity throughout the testing.

S14.9.3.12.4.3 Headlamps on the test vehicle shall be aimed according to the vehicle manufacturer's instructions. The test vehicle shall be loaded within +/− 5 kg of the total vehicle weight during track testing prior to aiming the adaptive driving beam headlamps.

S14.9.3.12.4.4 The adaptive driving beam system shall be adjusted according to the manufacturer's instructions.

S14.9.3.12.4.5 To the extent practicable, adaptive driving beam system sensors and the windshield on the test vehicle (if an adaptive driving beam system sensor is behind the windshield) shall be clean and free of dirt and debris.

S14.9.3.12.4.6 The headlamp lenses of the test vehicle shall be clean and free from dirt and debris.

S14.9.3.12.4.7 The adaptive driving beam system shall be activated according to the manufacturer's instructions and all other independently controlled lamps, such as fog lamps, shall be turned off.

S14.9.3.12.5 *Test road*

S14.9.3.12.5.1 The test road shall have a longitudinal grade (slope) that does not exceed 2%.

S14.9.3.12.5.2 The lane width shall be any width from 3.05 m (10 ft) to 3.66 m (12 ft).

S14.9.3.12.5.3 The lanes shall be adjacent to one another.

S14.9.3.12.5.4 The tests are conducted on a uniform, solid-paved surface.

S14.9.3.12.5.5 The test road surface may be concrete or asphalt and shall not be bright white.

S14.9.3.12.5.6 The test road surface may have pavement markings but shall be free of retroreflective material or elements that affect the outcome of the test.

S14.9.3.12.6 *Other test parameters and conditions*

S14.9.3.12.6.1 Testing shall be conducted on dry pavement and with no precipitation.

S14.9.3.12.6.2 Testing shall be conducted when the ambient illumination at the test road as recorded by the photometers is at or below 0.2 lux.

S14.9.3.12.6.3 Photometer data signals shall be passed through a low-pass filter with a cutoff frequency of 35 Hz.

* * * * *

TABLE I–a—REQUIRED LAMPS AND REFLECTIVE DEVICES

Lighting device	Number and color	Mounting location	Mounting height	Device activation
All Passenger Cars, Multipurpose Passenger Vehicles (MPV), Trucks, and Buses				
Lower Beam Headlamps	White, of a headlighting system listed in Table II.	On the front, at the same height, symmetrically about the vertical centerline, as far apart as practicable.	Not less than 55.9 cm nor more than 137.2 cm.	The wiring harness or connector assembly of each headlighting system must be designed so that only those light sources intended for meeting lower beam photometrics are energized when the beam selector switch is in the lower beam position, and that only those light sources intended for meeting upper beam photometrics are energized when the beam selector switch is in the upper beam position, except for certain systems listed in Table II and semiautomatic headlamp beam switching devices certified to S9.4.1.6. Steady burning, except that may be flashed for signaling purposes or (for semiautomatic headlamp beam switching devices certified to S9.4.1.6) vary in intensity for adaptive driving beam functionality.
Upper Beam Headlamps	White, of a headlighting system listed in Table II.	On the front, at the same height, symmetrically about the vertical centerline, as far apart as practicable.	Not less than 22 inches (55.9 cm) nor more than 54 inches (137.2 cm).	
*	*	*	*	*	*	*

* * * * *

TABLE I–c—REQUIRED LAMPS AND REFLECTIVE DEVICES

Lighting device	Number and color	Mounting location	Mounting height	Device activation
		All Motorcycles		
Lower Beam Headlamps	White, of a headlighting system listed in S10.17.	On the front, at the same height, symmetrically about the vertical centerline, as far apart as practicable. See additional requirements in S10.17.1.1, S10.17.1.2, and S10.17.1.3.	Not less than 22 inches (55.9 cm) nor more than 54 inches (137.2 cm).	The wiring harness or connector assembly of each headlighting system must be designed so that only those light sources intended for meeting lower beam photometrics are energized when the beam selector switch is in the lower beam position, and that only those light sources intended for meeting upper beam photometrics are energized when the beam selector switch is in the upper beam position, except for certain systems listed in Table II and semiautomatic headlamp beam switching devices certified to S9.4.1.6. Steady burning, except that may be flashed for signaling purposes or (for semiautomatic headlamp beam switching devices certified to S9.4.1.6) vary in intensity for adaptive driving beam functionality. The upper beam or the lower beam, but not both, may be wired to modulate from a higher intensity to a lower intensity in accordance with S10.17.5.
Upper Beam Headlamps	White, of a headlighting system listed in S10.17.	On the front, at the same height, symmetrically about the vertical centerline, as far apart as practicable. See additional requirements in S10.17.1.1, S10.17.1.2, and S10.17.1.3.	Not less than 55.9 cm nor more than 137.2 cm.	
*	*	*	*	*	*	*

* * * * *

TABLE XXI—ADAPTIVE DRIVING BEAM PHOTOMETRY REQUIREMENTS (1)

Measurement distance interval (m)	Maximum illuminance Opposite direction (lux)	Maximum illuminance same direction (lux)
Greater than or equal to 15.0 and less than 30.0	3.1	18.9
Greater than or equal to 30.0 and less than 60.0	1.8	18.9
Greater than or equal to 60.0 and less than 120.0	0.6	4.0
Greater than or equal to 120.0 and less than or equal to 220	0.3	N/A

(1) For purposes of determining conformance with these specifications, an observed value or a calculated value shall be rounded to the nearest 0.1 lux, in accordance with the rounding method of ASTM Practice E29 Using Significant Digits in Test Data to Determine Conformance with Specifications.

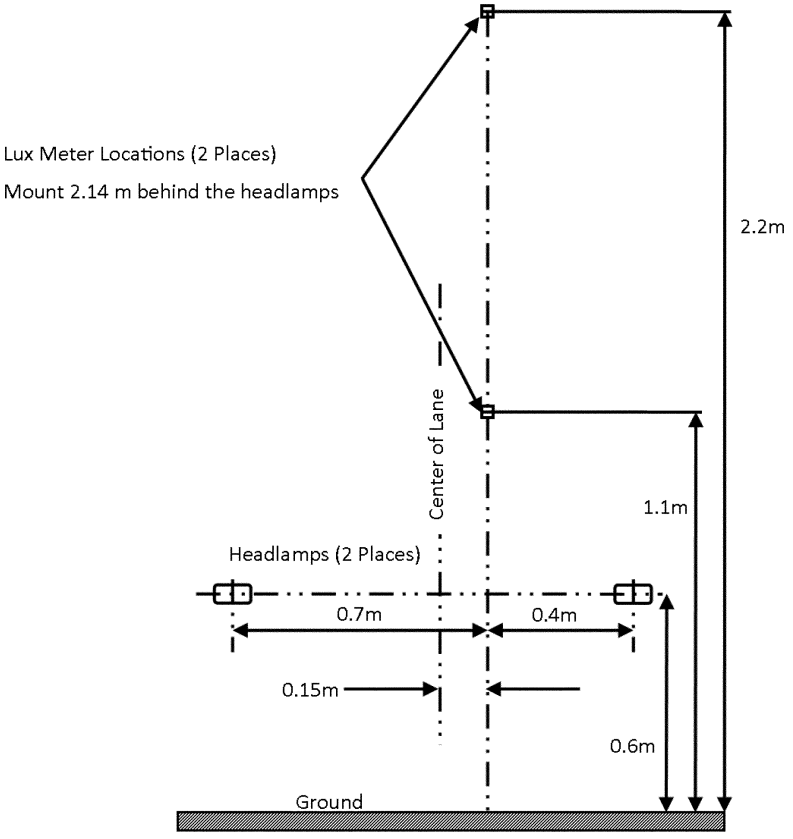
* * * * *

TABLE XXII—ADAPTIVE DRIVING BEAM SYSTEM TEST MATRIX

Scenario No.	Test vehicle speed (kph)	Orientation	Radius of curve (m.)	Curve direction	Superelevation (%)	Measurement distance range (m)
1	96.6–112.7 [60–70 mph]	Opposite Direction	Straight	N/A	0–2	Greater than or equal to 15 and less than or equal to 220.
2	40.2–48.3 [25–30 mph]	Opposite Direction	85–115	Left	0–2	Greater than or equal to 15 and less than 60.
3	64.4–72.4 [40–45 mph]	Opposite Direction	210–250	Left	0–2	Greater than or equal to 15 and less than or equal to 150.
4	80.5–88.5 [50–55 mph]	Opposite Direction	335–400	Left	0–2	Greater than or equal to 15 and less than or equal to 220.
5	64.4–72.4 [40–45 mph]	Opposite Direction	210–250	Right	0–2	Greater than or equal to 15 and less than or equal to 50.
6	80.5–88.5 [50–55 mph]	Opposite Direction	335–400	Right	0–2	Greater than or equal to 15 and less than or equal to 70.
7	96.6–112.7 [60–70 mph]	Same Direction	Straight	N/A	0–2	Greater than or equal to 15 and less than or equal to 100.
8	64.4–72.4 [40–45 mph]	Same Direction	210–250	Left	0–2	Greater than or equal to 15 and less than or equal to 100.

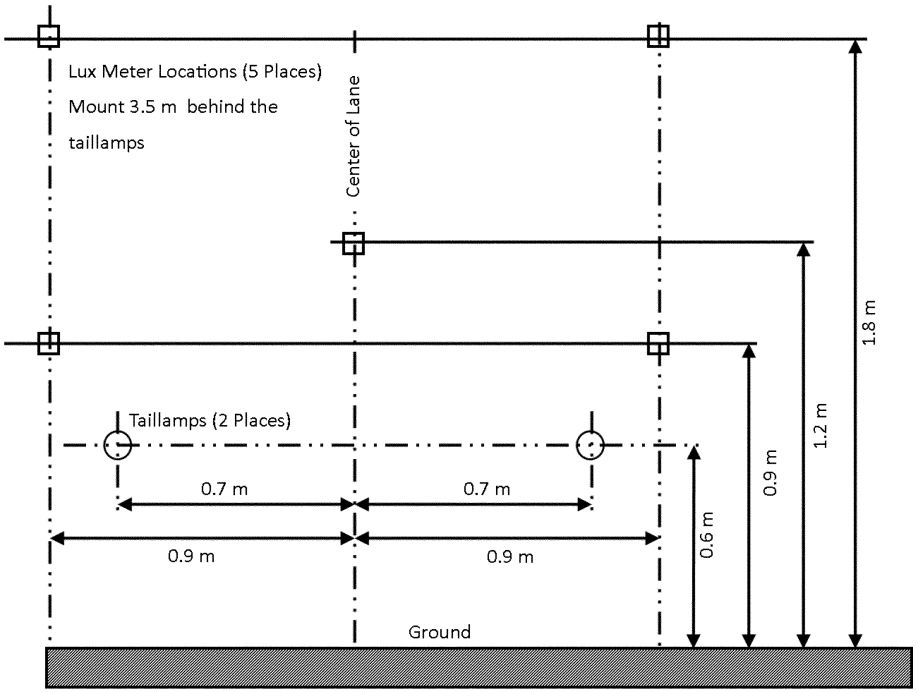
* * * * *

BILLING CODE 4910–59–P



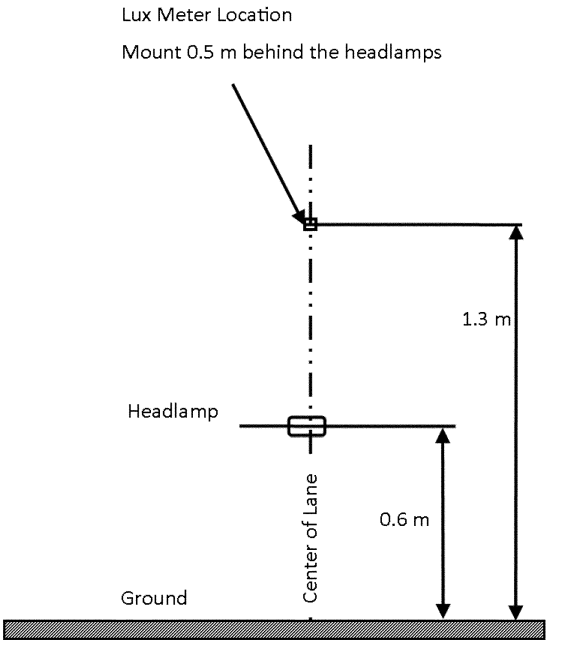
Car / Truck opposite direction stimulus test fixture dimensions

Figure 23



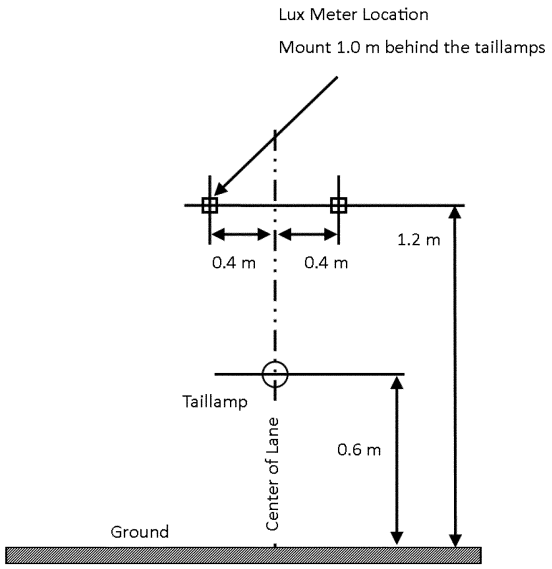
Car / Truck same direction stimulus fixture dimensions

Figure 24



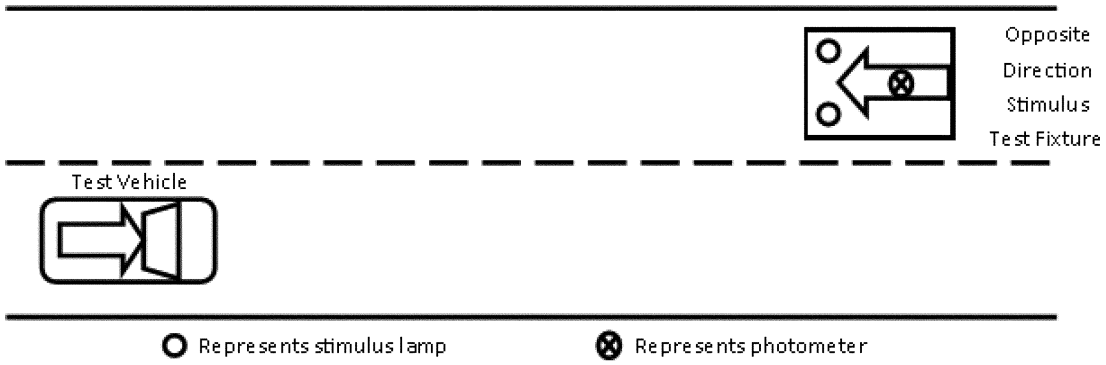
Motorcycle opposite direction stimulus test fixture dimensions

Figure 25



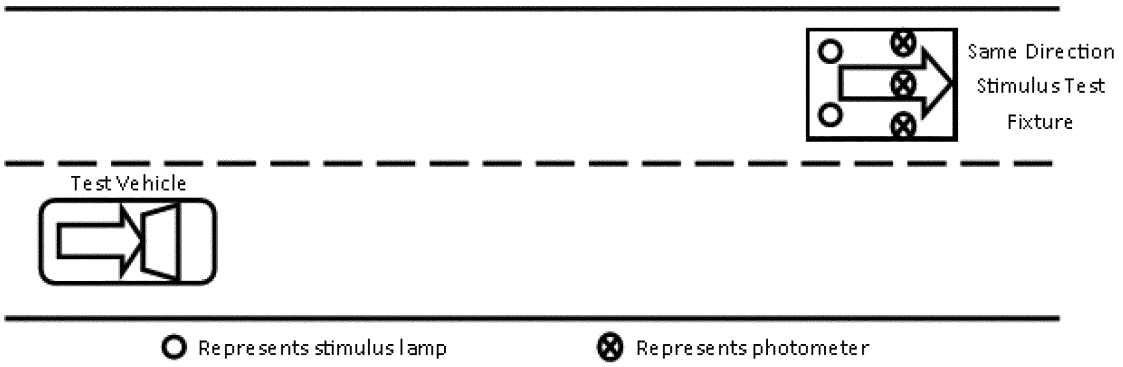
Motorcycle same direction stimulus test fixture dimensions

Figure 26



Not to scale. For illustrative purposes only.

Figure 27 Opposite Direction Test Scenarios



Not to scale. For illustrative purposes only.

Figure 28 Same Direction Test Scenarios

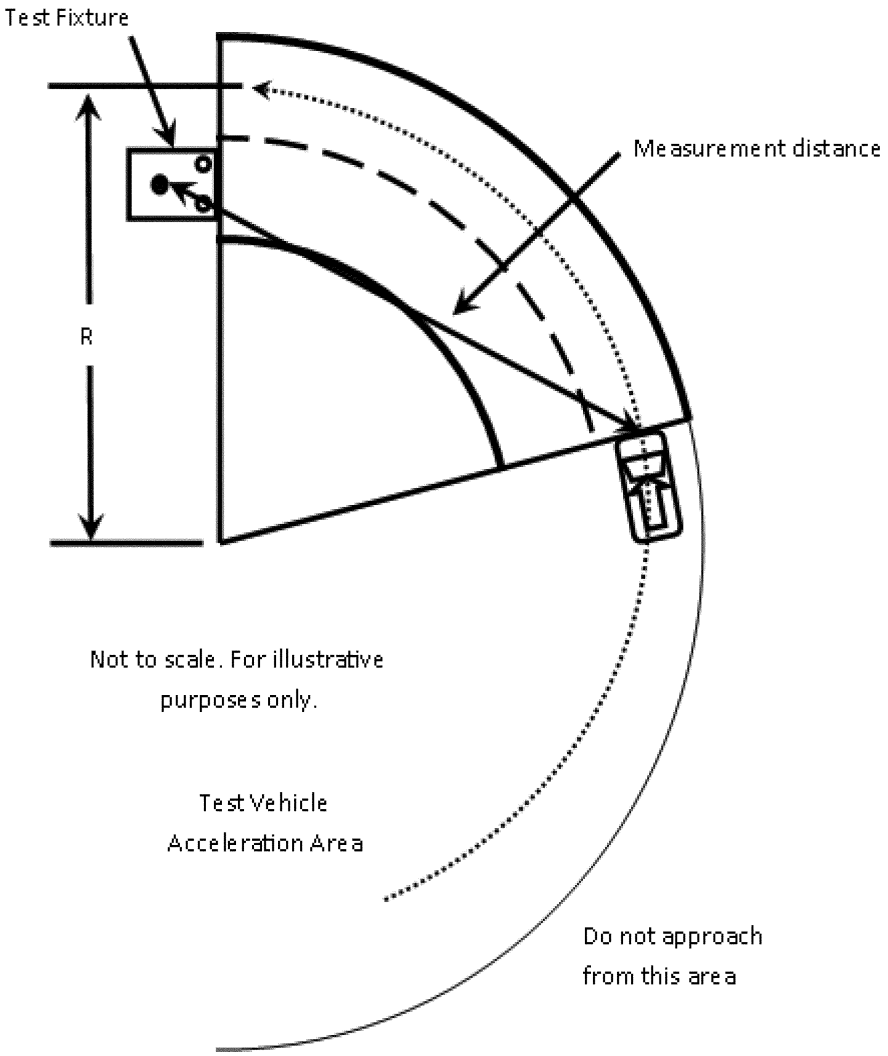


Figure 29 Left Curve Test Scenarios

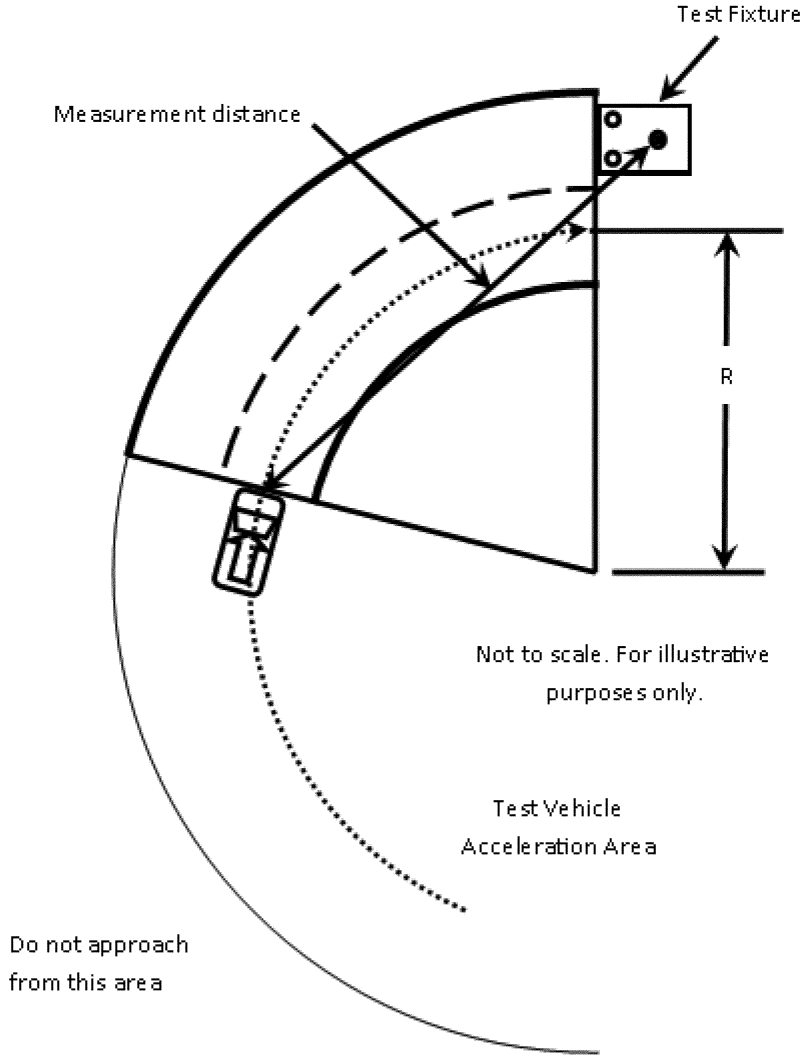


Figure 30 Right Curve Test Scenarios

BILLING CODE 4910–59–C

* * * * *

■ 3. Amend Subpart B by adding Appendix A to § 571.108 to read as follows:

Appendix A to Subpart B to § 571.108 Table of Contents.

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S7.10.8 *Indicator.*
S7.10.9 *Markings.*
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* * * * *

Issued under authority delegated in 49 CFR 1.95, 501.4, and 501.5.

Steven S. Cliff,

Deputy Administrator.

[FR Doc. 2022–02451 Filed 2–18–22; 8:45 am]

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FEDERAL REGISTER

Vol. 87 Tuesday,

No. 35 February 22, 2022

Part VI

Bureau of Consumer Financial Protection

12 CFR Part 1081

Rules of Practice for Adjudication Proceedings; Final Rule

BUREAU OF CONSUMER FINANCIAL PROTECTION

12 CFR Part 1081

[Docket No. CFPB–2022–0009]

RIN 3170–AB08

Rules of Practice for Adjudication Proceedings

AGENCY: Bureau of Consumer Financial Protection.

ACTION: Procedural rule; request for public comment.

SUMMARY: The Consumer Financial Protection Bureau (Bureau) is issuing this procedural rule to update its Rules of Practice for Adjudication Proceedings (Rules of Practice). This rule expands the opportunities for parties in adjudication proceedings to conduct depositions. It also contains various amendments regarding timing and deadlines, the content of answers, the scheduling conference, bifurcation of proceedings, the process for deciding dispositive motions, and requirements for issue exhaustion, as well as other technical changes. Overall, the amendments will provide the parties with earlier access to relevant information and also foster greater procedural flexibility, which should ultimately contribute to more effective and efficient proceedings. The Bureau welcomes comments on this rule, and the Bureau may make further amendments if it receives comments warranting changes.

DATES: This procedural rule is effective on February 22, 2022. Comments must be received on or before April 8, 2022.

ADDRESSES: You may submit comments, identified by Docket No. CFPB–2022–0009 or RIN 3170–AB08, by any of the following methods:

- *Federal eRulemaking Portal: https://www.regulations.gov.* Follow the instructions for submitting comments.
- *Email: 2022-Rules-of-Practice@cfpb.gov.* Include Docket No. CFPB–2022–0009 or RIN 3170–AB08 in the subject line of the message.
- *Mail/Hand Delivery/Courier:* Comment Intake—Rules of Practice for Adjudication Proceedings, Consumer Financial Protection Bureau, 1700 G Street NW, Washington, DC 20552.

Instructions: The Bureau encourages the early submission of comments. All submissions should include the agency name and docket number or Regulatory Information Number (RIN) for this rulemaking. Because paper mail in the Washington, DC area and at the Bureau is subject to delay, and in light of difficulties associated with mail and hand deliveries during the COVID–19 pandemic, commenters are encouraged to submit comments electronically. In general, all comments received will be posted without change to *https://www.regulations.gov.* In addition, once the Bureau's headquarters reopens, comments will be available for public inspection and copying at 1700 G Street NW, Washington, DC 20552, on official business days between the hours of 10 a.m. and 5 p.m. Eastern Time. At that time, you can make an appointment to inspect the documents by telephoning 202–435–7275.

All comments, including attachments and other supporting materials, will become part of the public record and subject to public disclosure. Proprietary information or sensitive personal information, such as account numbers or Social Security numbers, or names of other individuals, should not be included. Comments will not be edited to remove any identifying or contact information.

FOR FURTHER INFORMATION CONTACT: Kevin E. Friedl or Christopher Shelton, Senior Counsels, Legal Division, at 202–435–7700. If you require this document in an alternative electronic format, please contact *CFPB_Accessibility@cfpb.gov.*

SUPPLEMENTARY INFORMATION:

I. Background

The Consumer Financial Protection Act of 2010 (CFPA) establishes the Bureau as an independent bureau in the Federal Reserve System and assigns the Bureau a range of rulemaking, enforcement, supervision, and other authorities.[1] The Bureau's enforcement powers under the CFPA include section 1053, which authorizes the Bureau to conduct adjudication proceedings.[2] The Bureau finalized the original version of the Rules of Practice, which govern adjudication proceedings, in 2012 (2012 Rule).[3] The Bureau later finalized certain amendments, which addressed the issuance of temporary cease-and-desist orders, in 2014 (2014 Rule).[4]

II. Legal Authority

Section 1053(e) of the CFPA provides that the Bureau ''shall prescribe rules establishing such procedures as may be necessary to carry out'' section 1053.[5] Additionally, section 1022(b)(1) provides, in relevant part, that the Bureau's Director ''may prescribe rules . . . as may be necessary or appropriate to enable the Bureau to administer and carry out the purposes and objectives of the Federal consumer financial laws, and to prevent evasions thereof.'' [6] The Bureau issues this rule based on its authority under section 1053(e) and section 1022(b)(1).

III. Section-by-Section Analysis

Overview

The Bureau is republishing the entire Rules of Practice in the Code of Federal Regulations. The changes that the Bureau is making in this rule, compared to the previous version of the Rules of Practice, are summarized in the section-by-section analysis below. Also, the Bureau will include an unofficial, informal redline of the changes in the docket for this rule on *https://www.regulations.gov* in order to assist stakeholders' review.[7]

1081.114(a) Construction of Time Limits

The Bureau is amending 12 CFR 1081.114(a) (Rule 114(a)) to simplify and clarify the provisions describing how deadlines are computed. It governs the computation of any time limit in this part, by order of the Director or the hearing officer, or by any applicable statute. These amendments are based on similar amendments made to Federal Rule of Civil Procedure 6(a) in 2009.

Under the previous Rule 114(a), a period of ten days or less was computed differently than a longer period. Intermediate Saturdays, Sundays, and Federal holidays were included in computing longer periods, but excluded in computing shorter periods. The previous Rule 114(a) thus made computing deadlines unnecessarily complicated and led to counterintuitive

[1] Title X of the Dodd-Frank Wall Street Reform and Consumer Protection Act, Public Law 111–203, 124 Stat. 1376, 1955–2113 (2010).

[2] 12 U.S.C. 5563; *see also* section 1052(b), 12 U.S.C. 5562(b) (addressing subpoenas).

[3] 77 FR 39057 (June 29, 2012); *see also* 76 FR 45337 (July 28, 2011) (interim final rule).

[4] 79 FR 34622 (June 18, 2014); *see also* 78 FR 59163 (Sept. 26, 2013) (interim final rule).

[5] 12 U.S.C. 5563(e). As courts have recognized, the term ''necessary'' is ''a 'chameleon-like' word'' whose meaning can vary based on context; in the context of section 1053(e), the Bureau interprets '' 'necessary' to mean 'useful,' 'convenient' or 'appropriate' rather than 'required' or 'indispensable.' '' *Prometheus Radio Project* v. *FCC,* 373 F.3d 372, 391–94 (3d Cir. 2004). Section 1053 sets out the fundamental features of Bureau adjudications, but it leaves many details open that can only be addressed through more specific Bureau procedures. In turn, those Bureau procedures could not be effective, or fair to the parties, if they were limited to only the most rudimentary steps that would be indispensable to holding a skeletal proceeding. Instead, the Bureau believes that Congress gave the Bureau room to adopt procedures that are useful in carrying out section 1053.

[6] 12 U.S.C. 5512(b)(1).

[7] In the event of a conflict between the redline and the version in the **Federal Register**, the latter controls.

results. For example, a 10-day period and a 14-day period that started on the same day usually ended on the same day—and the 10-day period not infrequently ended later than the 14-day period.

Under the amended Rule 114(a), all deadlines stated in days are computed in the same way. The day of the event that triggers the deadline is not counted. All other days—including intermediate Saturdays, Sundays, and Federal holidays—are counted, with one exception: If the period ends on a Saturday, Sunday, or Federal holiday as set forth in 5 U.S.C. 6103(a), then the deadline falls on the next day that is not a Saturday, Sunday, or Federal holiday.

Periods previously expressed as ten days or less will be shortened as a practical matter by the decision to count intermediate Saturdays, Sundays, and legal holidays in computing all periods. The Bureau is lengthening many of those periods to compensate for the change.[8]

The Bureau is also adjusting most of the 10-day periods in the Rules of Practice to account for the change in computation method, by setting 14 days as the new period. A 14-day period corresponds to the most frequent result of a 10-day period under the previous computation method—two Saturdays and two Sundays were excluded, giving 14 days in all. A 14-day period has an additional advantage. The final day falls on the same day of the week as the event that triggered the period—the 14th day after a Monday, for example, is a Monday. This advantage of using week-long periods also led in many cases to adopting 7-day periods to replace many of the periods with periods using 7-day increments.

1081.115(b) Considerations in Determining Whether To Extend Time Limits or Grant Postponements, Adjournments and Extensions

Previously, 12 CFR 1081.115(b) (Rule 115(b)) stated that the Director or the hearing officer should adhere to a policy of strongly disfavoring granting motions for extensions of time, except in circumstances where the moving party makes a strong showing that the denial of the motion would substantially prejudice its case. It then listed factors that the Director or hearing officer will consider. The Bureau is simplifying this provision to state only that such motions are generally disfavored, while retaining the same list of factors that the Director or hearing officer will consider. The Bureau continues to believe that extensions of time should generally be disfavored, but it believes that relatively more flexibility than the previous language provided may be appropriate.

1081.201(b) Content of Answer

The previous 12 CFR 1081.201(b) (Rule 201(b)) required a respondent to file an answer containing, among other things, any affirmative defense. The Bureau is amending Rule 201(b) to make clear that this includes any avoidance, including those that may not be considered ''affirmative defenses.'' As the Securities and Exchange Commission (SEC) explained when it adopted a similar amendment to its rules of practice, timely assertion of such theories should help focus the use of prehearing discovery, foster early identification of key issues and, as a result, make the discovery process more effective and efficient.[9]

1081.203 Scheduling Conference

The provision at 12 CFR 1081.203 (Rule 203) requires a scheduling conference with all parties and the hearing officer for the purpose of scheduling the course and conduct of the proceeding. Before that scheduling conference, Rule 203 requires the parties to meet to discuss the nature and basis of their claims and defenses, the possibilities for settlement, as well as the matters that will be discussed with the hearing officer at the scheduling conference. The Bureau is making certain changes to Rule 203, including renumbering of provisions. This discussion cites the provisions as renumbered.

First, the Bureau is amending Rule 203(b) to require that the parties exchange a scheduling conference disclosure after that initial meeting, but before the scheduling conference. That disclosure must include a factual summary of the case, a summary of all factual and legal issues in dispute, and a summary of all factual and legal bases supporting each defense. The disclosure must also include information about the evidence that the party may present at the hearing, other than solely for impeachment, including (i) the contact information for anticipated witnesses, as well as a summary of the witness's anticipated testimony; and (ii) the identification of documents or other exhibits.

The Bureau is also adopting certain amendments to Rules 203(c), (d), and (e). Amended Rule 203(c) provides that a party must supplement or correct the scheduling conference disclosure in a timely manner if the party acquires other information that it intends to rely upon at a hearing. Amended Rule 203(d) provides a harmless-error rule for failures to disclose in scheduling conference disclosures. Finally, the Bureau is adopting certain minor clarifications to Rule 203(e), which governs the scheduling conference itself.

These amendments to Rule 203 are intended to foster early identification of key issues and, as a result, make the adjudication process, including any discovery process, more effective and efficient. They are also intended to, early in the process, determine whether the parties intend to seek the issuance of subpoenas or file dispositive motions so that, with input from the parties, the hearing officer can set an appropriate hearing date, taking into account the time necessary to complete the discovery or decide the anticipated dispositive motions.

The Bureau recognizes that, in most cases, the deadline for making the scheduling conference disclosure will also be the date the Office of Enforcement must commence making documents available to the respondent under 12 CFR 1081.206 (Rule 206). As the Bureau explained in the preamble to the 2012 Rule, it is the Bureau's expectation that the Office of Enforcement will make the material available as soon as possible in every case.[10] And even in cases where the Office of Enforcement cannot make those documents available within that time, a respondent may request a later hearing date and can move the hearing officer to alter the dates for either the scheduling conference or the scheduling conference disclosure.

1081.204(c) Bifurcation

The Bureau is adding a new 12 CFR 1081.204(c) (Rule 204(c)) to address bifurcation of proceedings. It provides that the Director may order that the proceeding be divided into two or more stages, if the Director determines that it would promote efficiency in the proceeding or for other good cause. For example, the Director may order that the proceeding have two stages, so that at the conclusion of the first stage the Director issues a decision on whether there have been violations of law and at the conclusion of the second stage the Director issues a final decision and order, including with respect to any remedies. The Director may make an order under Rule 204(c) either on the motion of a party or on the Director's own motion after inviting submissions by the parties. The Director may

[8] *See, e.g.*, amended 12 CFR 1081.105(c)(2), 1081.200(c), 1081.202(a).

[9] 81 FR 50211, 50219–20 (July 29, 2016).

[10] 77 FR 39057, 39072 (June 29, 2012).

include, in that order or in later orders, modifications to the procedures in the Rules of Practice in order to effectuate an efficient division into stages, or the Director may assign such authority to the hearing officer.[11]

Bifurcation is a standard case-management tool available to Federal district courts. The new Rule 204(c) will provide the Bureau with the flexibility to use bifurcation in adjudication proceedings, if warranted by particular cases, and to tailor its procedures to the circumstances of those bifurcated cases.

1081.206 Availability of Documents for Inspection and Copying

Rule 206 provides that the Bureau's Office of Enforcement will make certain documents available for inspection and copying. The Bureau is amending Rule 206 to clarify certain categories of documents that may be withheld or information that may be redacted, as well as to make clear that the Office of Enforcement may produce those documents in an electronic format rather than making the documents available for physical inspection and copying.

The clarifying amendments regarding documents that may be withheld or information that may be redacted are based on amendments the SEC recently made to its rules of practice. Amended Rule 206(b)(1)(iv) makes clear that the Office of Enforcement need not produce a document that reflects only settlement negotiations between the Office of Enforcement and a person or entity who is not a current respondent in the proceeding. As the SEC explained when it amended its rules of practice, this amendment is consistent with the important public policy interest in candid settlement negotiations, will help to preserve the confidentiality of settlement discussions, and help safeguard the privacy of potential respondents with whom the Office of Enforcement has negotiated.[12] Amended Rule 206 also permits the Office of Enforcement to redact from the documents it produces information it is not obligated to produce (Rule 206(b)(2)(i)) and sensitive personal information about persons other than the respondent (Rule 206(b)(2)(ii)). These amendments also track the SEC's recent amendments to its rules of practice and are designed to provide further protections for sensitive personal information and to permit the redaction of information that is not required to be produced in the first place.

The Bureau is also amending Rule 206(d) to change the date by which the Office of Enforcement must commence making documents available to the respondent, changing that date from seven days after service of the notice of charges to fourteen. This clarification harmonizes these timing provisions with 12 CFR 1081.119 (Rule 119), which protects the rights of third parties who have produced documents under a claim of confidentiality. The previous Rule 119 required a party to give a third party notice at least ten days prior to the disclosure of information obtained from that third party subject to a claim of confidentiality. Under the previous Rules of Practice, that meant that the Office of Enforcement had to provide notice to third parties *before* it commenced the adjudication proceeding because the Office of Enforcement had to give those third parties at least ten days' notice before producing the documents and the Office of Enforcement had to commence making documents available seven days after filing. Rule 119 is amended to require parties to notify the third parties at least seven days prior to the disclosure of information the third party produced under a claim of confidentiality. Together, Rules 119 and 206 now require the Office of Enforcement to commence making documents available fourteen days after service of the notice of charges and to notify third parties who produced documents subject to that disclosure requirement under a claim of confidentiality at least seven days before producing those documents.

The previous Rule 206(e) provided that the Office of Enforcement must make the documents available for inspection and copying at the Bureau's office where they are ordinarily maintained. As the preamble to the 2012 Rule explained, the Bureau anticipated providing electronic copies of documents to respondents in most cases.[13] The Bureau is amending Rule 206(e) to recognize this practice and expressly provide that the Office of Enforcement may produce those documents in an electronic format rather than making the documents available for inspection and copying. Under the amended Rule 206(e), the Office of Enforcement retains the discretion to make documents available for inspection and copying.

1081.208 Subpoenas and 1081.209 Depositions

The Bureau is making certain interrelated changes to 12 CFR 1081.208 and 1081.209 (Rules 208 and 209).

Rule 209 previously permitted parties to take depositions only if the witness was unable to attend or testify at a hearing. As the Bureau noted in the preamble to the 2012 Rule, the Bureau's Rules of Practice were modeled in part on the approach that the SEC took in its rules of practice.[14] Since that time, the SEC has amended its rules of practice to permit depositions.[15]

The Bureau is now amending Rule 209 to permit discovery depositions in addition to depositions of unavailable witnesses. The amendments to Rule 209 allow respondents and the Office of Enforcement to take depositions by oral examination pursuant to subpoena. The amended Rule 209 also permits parties to take a deposition by written questions upon motion and pursuant to a subpoena. If a proceeding involves a single respondent, the amendment allows the respondent and the Office of Enforcement to each depose up to three persons (*i.e.,* up to three depositions per side). If a proceeding involves multiple respondents, the amendment allows respondents to collectively depose up to five persons and the Office of Enforcement to depose up to five persons (*i.e.,* up to five depositions per side). This approach is consistent with the approach the SEC adopted when it amended its rules of practice to allow depositions.[16] A party may also move to take additional depositions, though that motion must be filed no later than 28 days prior to the hearing date. Amended Rule 209 also sets forth the procedure for requesting to taking additional depositions.

The above amendments to Rule 209 are intended to provide parties with further opportunities to develop arguments and defenses through deposition discovery, which may narrow the facts and issues to be explored during the hearing. Allowing depositions should facilitate the development of the case during the prehearing stage, which may result in more focused prehearing preparations, with issues distilled for the hearing and post-hearing briefing.

Under amendments to Rules 208 and 209, a party must request that the hearing officer issue a subpoena for the deposition. If the subpoena is issued, the party must also serve written notice of the deposition. The amendments to

[11] The new provision also clarifies that only the decision and order of the Director after the final stage, and not a decision of the Director after an earlier stage, will be a final decision and order for purposes of specified provisions of the Rules of Practice and section 1053(b) of the CFPA.

[12] 81 FR 50211, 50222 (July 29, 2016).

[13] 77 FR 39057, 39070 (June 29, 2012).

[14] 77 FR 39057, 39058 (June 29, 2012).

[15] 81 FR 50211 (July 29, 2016).

[16] *Id.* at 50216.

Rule 208, governing the issuance of subpoenas, correspond with the new provisions on depositions in Rule 209 by defining the standards for issuing a subpoena requiring the deposition of a witness. The amendment adds a new Rule 208(e) governing the standard for issuance of subpoenas seeking depositions upon oral examination. Under the amendment, the hearing officer will promptly issue any subpoena requiring the attendance and testimony of witnesses at a deposition only if the subpoena complies with Rule 209 and if the proposed deponent: (i) Is a witness identified in the other party's scheduling conference disclosure now required under revised Rule 203(b); (ii) a fact witness; [17] (iii) is a designated expert witness under 12 CFR 1081.210(b) (Rule 210(b)); or (iv) a document custodian.[18] Fact witnesses, expert witnesses, and document custodians, whose knowledge of relevant facts does not arise from the Bureau's investigation, the Bureau's examination, or the proceeding, are the individuals most likely to have information relevant to the issues to be decided. Because the Bureau will also disclose to respondents the documents described in Rule 206 as well as witness statements upon request under 12 CFR 1081.207 (Rule 207), deposing Bureau staff whose only knowledge of relevant facts arose from the investigation, examination, or proceeding is unlikely to shed light on the events underlying the proceeding and will likely lead to impermissible inquiries into the mental processes and strategies of Bureau attorneys or staff under their direction. Not only does this implicate privileges or the work-product doctrine, but deposition of Bureau staff in this manner can be burdensome and disruptive because it embroils the parties in controversies over the scope of those protections.

The amendments to Rule 208 also provide a process for the hearing officer to request more information about the relevance or scope of the testimony sought and to refuse to issue the subpoena or issue it only upon conditions. This provision is intended to foster use of depositions where appropriate and encourage meaningful discovery, within the limits of the number of depositions provided per side. This provision should encourage parties to focus any requested depositions on those persons most likely to yield relevant information and thereby make efficient use of time during the prehearing stage.

Rule 208 previously permitted parties to request issuance of subpoenas requiring the attendance and testimony of witnesses at the designated time and place of the hearing, for the production of documentary or other tangible evidence, or for the deposition of a witness who will be unavailable for the hearing. The Rules of Practice also permitted the deposition of expert witnesses under Rule 210. The amendments keep those provisions, making conforming amendments to account for the new provision permitting discovery depositions. A subpoena seeking the deposition of a witness who will be unavailable for the hearing does not count against the number of depositions permitted under Rule 209(a).

These new and amended provisions expand the available legitimate mechanisms respondents may use to conduct discovery, providing respondents a clearer understanding of the bases of the Bureau's factual contentions while reducing the costs and burdens of hearings on all parties. Additionally, the grounds for a hearing officer denying a request to issue a subpoena under Rule 208—that it is ''unreasonable, oppressive, excessive in scope, or unduly burdensome''—are consistent with well-established judicial standards, and hearing officers will, in their consideration of requests for subpoenas, act diligently and in good faith to implement the standards for refusing or modifying deposition subpoenas set forth under the amended rule. These combined changes are overall less burdensome yet are equally effective in the resolution of the case on the merits.

Amended Rule 209 also adds procedures governing the taking of depositions, including depositions by written question. In general, once a subpoena for a deposition is issued, the party seeking the deposition must serve written notice of the deposition. That notice must include several things, including the time and place of the deposition, the identity of the deponent, and the method for recording the deposition. These and other procedural provisions track the SEC's recent amendments to its rules of practice.[19] They govern the process for seeking depositions by written questions and the taking of all depositions, including setting forth the deposition officer's duties, the process for stating objections, motions to terminate or limit the deposition, and the process for finalizing a transcript.

Finally, the Bureau is adding Rule 208(l), which addresses the relationship of subpoenas to the scheduling of the hearing. In the 2012 Rule, one reason why the Bureau did not—as a general matter—permit discovery depositions was because the additional time required for depositions before the hearing could be in tension with the statutory timetable for hearings under section 1053(b) of the CFPA.[20] As the preamble to the 2012 Rule noted, prehearing depositions would present extreme scheduling difficulties in those cases in which respondents did not request hearing dates outside the default timeframe under section 1053(b), which provides for the hearing to be held 30 to 60 days after service of the notice of charges, unless an earlier or a later date is set by the Bureau, at the request of any party so served.[21] The new Rule 208(l) addresses this scheduling obstacle to depositions and other discovery, by specifying that a respondent's request for issuance of a subpoena constitutes a request that the hearing not be held until after a reasonable period, determined by the hearing officer, for the completion of discovery.[22] This is because a request for discovery reasonably entails a delay for the discovery process to be completed.

Given this resolution of the 2012 Rule's scheduling concern, the Bureau believes that the benefits of discovery depositions under the amended Rule 209, as described earlier, outweigh other concerns expressed in the preamble to the 2012 Rule about the time, expense,

[17] Under amended Rule 209, this type of proposed deponent must have witnessed or participated in any event, transaction, occurrence, act, or omission that forms the basis for any claim asserted by the Office of Enforcement, any defense, or anything else required to be included in an answer pursuant to Rule 201(b), by any respondent in the proceeding (this excludes a proposed deponent whose only knowledge of these matters arises from the Bureau's investigation, the Bureau's examination, or the proceeding).

[18] This excludes Bureau officers or personnel who have custody of documents or data that was produced from the Office of Enforcement to the respondent. In most circumstances, the Bureau officers or personnel were not the original custodian of the documents. Where the Bureau was the original custodian of the document—for example, a report of examination under 12 CFR 1081.303(d)(2) (Rule 303(d)(2))—there is no need to depose a document custodian as that report is admissible without a sponsoring witness.

[19] 81 FR 50211, 50215–17 (July 29, 2016).

[20] 12 U.S.C. 5563(b).

[21] 77 FR 39057, 39076 (June 29, 2012).

[22] Rule 208(l) goes on to specify that the hearing officer will decide whether to grant such a request. If the request is granted, the hearing officer will set a deadline for the completion of discovery and schedule the specific date of the hearing, in consultation with the parties. Rule 208(l) does not apply to a subpoena for the attendance and testimony of a witness at the hearing or a subpoena to depose a witness unavailable for the hearing.

and risk of collateral disputes arising from depositions.[23]

1081.211 Interlocutory Review

The provision at 12 CFR 1081.211 (Rule 211) governs interlocutory review. Rule 211(e) previously included language that stated that interlocutory review is disfavored, and that the Director will grant a petition to review a hearing officer's ruling or order prior to the Director's consideration of a recommended decision only in extraordinary circumstances. The Bureau is simplifying this language to state only that interlocutory review is generally disfavored. This is because, although interlocutory review remains disfavored, the Bureau believes that there can be situations where interlocutory review can contribute to the efficiency of proceedings short of extraordinary circumstances.

1081.212 Dispositive Motions

The Bureau is relocating the previous 12 CFR 1081.212(g) and (h) (Rule 212(g) and (h)), which addressed oral argument and decisions on dispositive motions, respectively, to form part of 12 CFR 1081.213 (Rule 213). Rule 213 is discussed in the next section of this section-by-section analysis.

Additionally, the Bureau is adopting a new Rule 212(g) to address the relationship of dispositive motions to the scheduling of the hearing, which is codified as Rule 212(g) but unrelated to the previous Rule 212(g). It is analogous to Rule 208(l), discussed above. It specifies that a respondent's filing of a dispositive motion constitutes a request that the hearing not be held until after the motion is resolved.[24] This is because the filing of a dispositive motion, whose purpose is to avoid or limit the need for a hearing, reasonably entails a delay of that hearing so that the motion can be resolved.

1081.213 Rulings on Dispositive Motions

The Bureau is amending Rule 213 to adopt a new procedure for rulings on dispositive motions, based on a procedure used by the Federal Trade Commission (FTC). The Bureau is also making related technical changes for clarity.

Under the Bureau's existing Rules of Practice, the Director ''may, at any time, direct that any matter be submitted to him or her for review.'' [25] However, there was previously no specific procedure for the Director to exercise this discretion in the context of dispositive motions.

The new Rule 213(a) provides that the Director will either rule on a dispositive motion, refer the motion to the hearing officer, or rule on the motion in part and refer it in part. This is based on a similar process under the FTC's rules of practice.[26] The Bureau agrees with the reasoning of the FTC when it adopted this process a decade ago. The FTC explained that the head of the agency has authority and expertise to rule initially on dispositive motions, and doing so can improve the quality of decision-making and expedite the proceeding.[27] As the FTC further noted, an erroneous decision by an administrative law judge on a dispositive motion may lead to unnecessary briefing, hearing, and reversal, resulting in substantial costs and delay to the litigants.[28] Adopting this process will give the Director the flexibility to decide whether a given dispositive motion would be most efficiently addressed by the hearing officer, with ultimate review by the Director, or simply by the Director.

The new Rule 213(b) provides that, if the Director rules on the motion, the Director must do so within 42 days following the expiration of the time for filing all responses and replies, unless there is good cause to extend the deadline. If the Director refers the motion to the hearing officer, the Director may set a deadline for the hearing officer to rule. This is based on the parallel timing requirements under the FTC's rules of practice.[29] Previously, Rule 212(h) provided a 30-day timeframe for the hearing officer to decide dispositive motions, subject to extension.[30] But the Bureau believes that the FTC's somewhat more flexible approach to timing is warranted, given that the Director must first decide whether or not to refer the motion to the hearing officer and also has other responsibilities as the head of the agency. The Bureau believes that the overall efficiency gains to adjudication proceedings from the new process, as discussed above, should generally compensate for any delays associated with a more flexible deadline.

The new Rule 213(c) provides that, at the request of any party or on the Director or hearing officer's own motion, the Director or hearing officer (as applicable) may hear oral argument on a dispositive motion. Rule 213(c) is identical to the previous Rule 212(g), except that it is updated to reflect the fact that the Director would be the appropriate official to hear oral argument, if any, to the extent the Director is deciding the motion.

Finally, the new Rule 213(d) describes the types of rulings that the Director or hearing officer may make on a dispositive motion. It consolidates language from the previous Rules 212(h) and 213, with updates to reflect the fact that the Director may be the official who decides the motion, as well as other technical changes for clarity.

1081.400(a) Time Period for Filing Preliminary Findings and Conclusions

Under the previous 12 CFR 1081.400(a) (Rule 400(a)), subject to possible extensions, the hearing officer was required to file a recommended decision no later than 90 days after the deadline for filing post-hearing responsive briefs pursuant to 12 CFR 1081.305(b) (Rule 305(b)) and in no event later than 300 days after filing of the notice of charges. The Bureau is amending the latter, 300-day interval to 360 days, in light of the amendments to Rule 209 that expand the opportunities for depositions. Additionally, as explained later in this section-by-section analysis, the Bureau is changing terminology from ''recommended decision'' to ''preliminary findings and conclusions'' throughout the Rules of Practice.

1081.408 Issue Exhaustion

The Bureau is adding a new 12 CFR 1081.408 (Rule 408) to address issue exhaustion.

As the Supreme Court has explained: ''Administrative review schemes commonly require parties to give the agency an opportunity to address an issue before seeking judicial review of that question.'' [31] These requirements can be ''creatures of statute or regulation'' or else are ''judicially created.'' [32] It is ''common for an agency's regulations to require issue exhaustion in administrative appeals. And when regulations do so, courts reviewing agency action regularly

[23] 77 FR 39057, 39076 (June 29, 2012).

[24] Rule 212(g) goes on to state that the hearing officer will decide whether to grant such a request. If the request is granted, the hearing officer will schedule the specific date of the hearing, in consultation with the parties.

[25] 12 CFR 1081.211(a).

[26] 16 CFR 3.22(a). This FTC provision does not specifically discuss a situation where the agency head rules on the motion in part and refers it in part. The Bureau has included language in Rule 213(a) to specifically discuss this situation.

[27] 74 FR 1803, 1809–10 (Jan. 13, 2009).

[28] *Id.* at 1809–10.

[29] 16 CFR 3.22(a). This FTC provision includes an interval of 45 days, but as discussed elsewhere in this section-by-section analysis the Bureau is generally adopting time intervals in increments of seven days.

[30] *See* 12 CFR 1081.115 (change of time limits).

[31] *Carr* v. *Saul,* 141 S. Ct. 1352, 1358 (2021).

[32] *Id.*

ensure against the bypassing of that requirement by refusing to consider unexhausted issues.'' [33] Consistent with the Court's case law, the Administrative Conference of the United States has recommended that agencies address issue exhaustion requirements in their regulations.[34]

The Bureau is now adopting an express regulation on issue exhaustion. Section 1053 of the CFPA contemplates that the Bureau will conduct a proceeding to decide whether to issue a final order, and then parties may petition courts to review the Bureau's decision, based on the record that was before the Bureau.[35] But if parties do not adequately present their arguments to the Bureau, it frustrates this statutory scheme. Accordingly, the Bureau believes that having procedures to address issue exhaustion in adjudication proceedings is important to carry out section 1053.[36] The Bureau also notes that having express procedures on this subject should benefit both the Bureau and the parties, by avoiding any potential confusion about how parties must raise arguments in adjudication proceedings.

Rule 408(a) defines the new Rule 408's scope. It applies to any argument to support a party's case or defense, including any argument that could be a basis for setting aside Bureau action under 5 U.S.C. 706 or any other source of law. This broad scope ensures that the Bureau has the opportunity to consider any issue affecting its proceedings.

Rule 408(b) provides, first, that a party must raise an argument before the hearing officer, or else it is not preserved for later consideration by the Director. Second, a party must raise an argument before the Director, or else it is not preserved for later consideration by a court. This is consistent with the roles of the hearing officer and Director.[37]

Rule 408(c) provides that an argument must be raised in a manner that complies with the Rules of Practice and that provides a fair opportunity to consider the argument.

Finally, Rule 408(d) clarifies that the Director has discretion to consider an unpreserved argument, including by considering it in the alternative. It also clarifies that, if the Director considers an unpreserved argument in the alternative, the argument remains unpreserved. Because issue exhaustion requirements serve to protect the agency's processes, it is appropriate for the head of the agency to retain discretion to waive those issue exhaustion requirements in appropriate cases.[38] If a party believes that there is good cause for the issue exhaustion requirements to not be applied in a particular context, the proper course is to timely request that the Director exercise this discretion. The Director may also do so on the Director's own initiative. On the other hand, if the Director merely considers an unpreserved argument in the alternative, that should not be construed as a waiver by the Director of the party's failure to appropriately raise the argument.

Global Technical Amendments

In addition to the specific changes outlined above, the Bureau is making certain technical amendments throughout the Rules of Practice.

First, the Bureau is retitling the hearing officer's ''recommended decision'' as ''preliminary findings and conclusions.'' The Bureau believes that this title is more descriptive of this component of an adjudication proceeding. This is a terminological change, and preliminary findings and conclusions remain a recommended decision for purposes of the Administrative Procedure Act.

Second, the Bureau is making changes to ensure that the language of the Rules of Practice is gender inclusive. Third, consistent with the current Federal Rules of Civil Procedure, the Bureau is replacing use of the term ''shall'' with the terms ''must,'' ''may,'' ''will,'' or ''should,'' depending on the context, because the term ''shall'' can sometimes be ambiguous.[39] Fourth, the amendments replace certain uses of the term ''the Bureau'' with either ''the Director,'' ''the Office of Administrative Adjudication,'' or ''the Office of Enforcement,'' in order to avoid ambiguity about which Bureau organ is being referenced. Fifth, as also discussed in the section-by-section analysis for Rule 114(a), the Bureau is adjusting various time periods in the Rules of Practice. Finally, the Bureau is making technical changes to requirements in 12 CFR 1081.111(a), 1081.113(d)(2), and 1081.405(e) (Rules 111(a), 113(d)(2), and 405(e)) regarding filing of certain papers by the hearing officer and Director and service of those papers by the Office of Administrative Adjudication.

IV. Section 1022(b)(2) Analysis

In developing this rule, the Bureau has considered the rule's benefits, costs, and impacts in accordance with section 1022(b)(2)(A) of the CFPA.[40] In addition, the Bureau has consulted or offered to consult with the prudential regulators and the FTC, including regarding consistency of this rule with any prudential, market, or systemic objectives administered by those agencies, in accordance with section 1022(b)(2)(B) of the CFPA.[41]

As with the 2012 Rule, this rule neither imposes obligations on consumers, nor is it expected to affect their access to consumer financial products or services. For purposes of this 1022(b)(2) analysis, the Bureau compares the effect of the rule against the baseline of the Rules of Practice as they currently exist, as established by the 2012 Rule and amended by the 2014 Rule.

The Rules of Practice amended by this rule are intended to provide an expeditious decision-making process. An expeditious decision-making process may benefit both consumers and

[33] *Sims* v. *Apfel,* 530 U.S. 103, 108 (2000) (internal citation omitted).

[34] 86 FR 6612, 6619 (Jan. 22, 2021) (recommendation 2.k).

[35] *See generally* section 1053(b), 12 U.S.C. 5563(b).

[36] Section 1053(e), 12 U.S.C. 5563(e). The issue exhaustion provision is also independently authorized by section 1022(b)(1), 12 U.S.C. 5512(b)(1), based on either of two grounds. First, establishing orderly rules for issue exhaustion is appropriate to enable the Bureau to ''administer and carry out the purposes and objectives of'' section 1053, for the reasons discussed above and below. *Id.* Second, these issue-exhaustion rules ''prevent evasions'' of section 1053 and the Rules of Practice by some parties, who otherwise may not adequately present their arguments to the Bureau. *Id.; see Woodford* v. *Ngo,* 548 U.S. 81, 90 (2006) (explaining that ''exhaustion requirements are designed to deal with parties who do not want to exhaust'').

[37] The Bureau notes that in cases where Rule 408(b) interacts with the Bureau's revisions to Rule 213, it yields a common-sense result. If the Director rules on a dispositive motion under Rule 213 rather than referring it to the hearing officer, then the first sentence of Rule 408(b)—which normally requires parties to raise arguments before the hearing officer in the first instance—would be inapplicable to the Director's consideration of the motion. This is because the Director's ruling on the motion would not be ''later'' consideration by the Director after the hearing officer. On the other hand, the second sentence of Rule 408(b) would be applicable, and arguments not properly raised before the Director in briefing on the motion would not be preserved for later consideration by a court.

[38] *See, e.g., Am. Farm Lines* v. *Black Ball Freight Serv.,* 397 U.S. 532, 539 (1970) (It ''is always within the discretion of . . . an administrative agency to relax or modify its procedural rules adopted for the orderly transaction of business before it when in a given case the ends of justice require it.'').

[39] Fed. R. Civ. P. 1, advisory committee's notes to 2007 amendment.

[40] 12 U.S.C. 5512(b)(2)(A).

[41] 12 U.S.C. 5512(b)(2)(B). Whether section 1022(b)(2)(A) and section 1022(b)(2)(A)(B) are applicable to this rule is unclear, but in order to inform the rulemaking more fully the Bureau performed the described analysis and consultations.

covered persons to the extent that it is used in lieu of proceedings initiated in federal district court. A clear and efficient process for the conduct of adjudication proceedings benefits consumers by providing a systematic process for protecting them from unlawful behavior. At the same time, a more efficient process affords covered persons with a cost-effective way to have their cases heard. The 2012 Rule adopted an affirmative disclosure approach to fact discovery, pursuant to which the Bureau makes available to respondents the information obtained by the Office of Enforcement from persons not employed by the Bureau prior to the institution of proceedings, in connection with the investigation leading to the institution of proceedings that is not otherwise privileged or protected from disclosure. This affirmative disclosure obligation was intended to substitute for the traditional civil discovery process, which can be both time-consuming and expensive. By changing this process to allow for a limited number of depositions by both the Office of Enforcement and respondents, the rule will increase the cost of the process in both time and money, relative to the baseline. At the same time, to the extent that a limited number of depositions makes hearings proceed more efficiently, the rule may reduce costs. In addition, since promulgating the 2012 Rule, the Bureau has only brought two cases through the administrative adjudication process from start to finish. As such, the Bureau expects there to be few cases in the future that would have benefited from the more limited deposition procedure in the 2012 Rule. The Bureau expects the amended procedure to still be faster and less expensive than discovery through a Federal district court. To the extent that adding additional discovery enables more cases that would otherwise be initiated in Federal court to instead be initiated through the administrative adjudication process, both consumers and covered persons will benefit.

In addition, in the 1022(b)(2) analysis for the 2012 Rule, the Bureau stated that a benefit of the Rule was its similarity to existing rules of the prudential regulators, the FTC, and the SEC. The SEC has since amended its rules, and many of the changes in these amendments will align the Bureau's rules with the new SEC rules and those of other agencies. The Rule's similarity to other agencies' rules should further reduce the expense of administrative adjudication for covered persons.

Further, these amendments have no unique impact on insured depository institutions or insured credit unions with less than $10 billion in assets described in section 1026(a) of the CFPA. Finally, the amendments do not have a unique impact on rural consumers.

V. Regulatory Requirements

As a rule of agency organization, procedure, or practice, this rule is exempt from the notice-and-comment rulemaking requirements of the Administrative Procedure Act.[42] However, the Bureau is accepting comments on the rule. If, based on the comments, the Bureau decides to make further amendments, the Bureau requests comment on whether those amendments should apply to any adjudication proceedings that may be pending at that time.

Because no notice of proposed rulemaking is required, the Regulatory Flexibility Act does not require an initial or final regulatory flexibility analysis.[43] Moreover, the Bureau's Director certifies that this rule will not have a significant economic impact on a substantial number of small entities. Therefore, an analysis is also not required for that reason.[44] The rule imposes compliance burdens only on the handful of entities that are respondents in adjudication proceedings or third-party recipients of discovery requests. Some of the handful of affected entities may be small entities under the Regulatory Flexibility Act, but they would represent an extremely small fraction of small entities in consumer financial services markets. Accordingly, the number of small entities affected is not substantial.

The Bureau has also determined that this rule does not impose any new or revise any existing recordkeeping, reporting, or disclosure requirements on covered entities or members of the public that would be collections of information requiring approval by the Office of Management and Budget under the Paperwork Reduction Act.[45]

List of Subjects in 12 CFR Part 1081

Administrative practice and procedure, Banks, Banking, Consumer protection, Credit unions, Law enforcement, National banks, Savings associations, Trade practices.

Authority and Issuance

■ For the reasons set forth above, the Bureau revises 12 CFR part 1081 to read as follows:

[42] 5 U.S.C. 553(b).

[43] 5 U.S.C. 603, 604.

[44] 5 U.S.C. 605(b).

[45] 44 U.S.C. 3501–3521.

PART 1081—RULES OF PRACTICE FOR ADJUDICATION PROCEEDINGS

Subpart A—General Rules

Subpart B—Initiation of Proceedings and Prehearing Rules

Subpart C—Hearings

Subpart D—Decision and Appeals

Authority: 12 U.S.C. 5512(b)(1), 5563(e).

Subpart A—General Rules

§ 1081.100 Scope of the rules of practice.

This part prescribes rules of practice and procedure applicable to adjudication proceedings authorized by section 1053 of the Consumer Financial Protection Act of 2010 (12 U.S.C. 5563). The rules of practice in this part do not govern the conduct of Bureau investigations, investigational hearings or other proceedings that do not arise from proceedings after a notice of charges.

§ 1081.101 Expedition and fairness of proceedings.

To the extent practicable, consistent with requirements of law, the Bureau's policy is to conduct such adjudication proceedings fairly and expeditiously. In the conduct of such proceedings, the hearing officer and counsel for all parties must make every effort at each stage of a proceeding to avoid delay. With the consent of the parties, the Director, at any time, or the hearing officer at any time prior to the filing of the hearing officer's preliminary findings and conclusions, may change any time limit prescribed by this part.

§ 1081.102 Rules of construction.

For the purposes of this part:

(a) Any term in the singular includes the plural, and the plural includes the singular, if such use would be appropriate;

(b) Any use of a masculine, feminine, or neutral gender encompasses all three, if such use would be appropriate;

(c) Unless context requires otherwise, a party's counsel of record, if any, may, on behalf of that party, take any action required to be taken by the party; and

(d) To the extent this part uses terms defined by section 1002 of the Consumer Financial Protection Act of 2010 (12 U.S.C. 5481), such terms have the same meaning as set forth therein, unless defined differently by § 1081.103.

§ 1081.103 Definitions.

For the purposes of this part, unless explicitly stated to the contrary:

Adjudication proceeding means a proceeding conducted pursuant to section 1053 of the Consumer Financial Protection Act of 2010 (12 U.S.C. 5563) and intended to lead to the formulation of a final order other than a temporary order to cease and desist issued pursuant to section 1053(c) of that Act (12 U.S.C. 5563(c)).

Bureau means the Consumer Financial Protection Bureau.

Chief hearing officer means the hearing officer charged with assigning hearing officers to specific proceedings, in the event there is more than one hearing officer available to the Bureau.

Counsel means any person representing a party pursuant to § 1081.107.

Decisional employee means any employee of the Bureau who has not engaged in an investigative or prosecutorial role in a proceeding and who may assist the Director or the hearing officer, respectively, in preparing orders, preliminary findings and conclusions, decisions, and other documents under this part.

Director means the Director of the Bureau or a person authorized to perform the functions of the Director in accordance with the law.

Enforcement counsel means any individual who files a notice of appearance as counsel on behalf of the Office of Enforcement in an adjudication proceeding.

Final order means an order issued by the Bureau with or without the consent of the respondent, which has become final, without regard to the pendency of any petition for reconsideration or review.

General Counsel means the General Counsel of the Bureau or any Bureau employee to whom the General Counsel has delegated authority to act under this part.

Hearing officer means an administrative law judge or any other person duly authorized to preside at a hearing.

Notice of charges means the pleading that commences an adjudication proceeding, as described in § 1081.200, except that it does not include a stipulation and consent order under § 1081.200(d).

Office of Administrative Adjudication means the office of the Bureau responsible for conducting adjudication proceedings.

Office of Enforcement means the office of the Bureau responsible for enforcement of Federal consumer financial law or other laws enforceable by the Bureau.

Party means the Office of Enforcement, any person named as a party in any notice of charges issued pursuant to this part, and, to the extent applicable, any person who intervenes in the proceeding pursuant to § 1081.119(a) to seek a protective order.

Person means an individual, partnership, company, corporation, association (incorporated or unincorporated), trust, estate, cooperative organization, or other entity.

Person employed by the Bureau means Bureau employees, contractors, agents, and others acting for or on behalf of the Bureau, or at its direction, including consulting experts.

Respondent means the party named in the notice of charges.

State means any State, territory, or possession of the United States, the District of Columbia, the Commonwealth of Puerto Rico, the Commonwealth of the Northern Mariana Islands, Guam, American Samoa, or the United States Virgin Islands or any federally recognized Indian tribe, as defined by the Secretary of the Interior under section 104(a) of the Federally Recognized Indian Tribe List Act of 1994, 25 U.S.C. 479a–1(a).

§ 1081.104 Authority of the hearing officer.

(a) *General rule.* The hearing officer will have all powers necessary to conduct a proceeding in a fair and impartial manner and to avoid unnecessary delay. No provision of this part may be construed to limit the powers of the hearing officers provided by the Administrative Procedure Act, 5 U.S.C. 556, 557.

(b) *Powers.* The powers of the hearing officer include but are not limited to the power:

(1) To administer oaths and affirmations;

(2) To issue subpoenas, subpoenas *duces tecum,* and protective orders, as authorized by this part, and to quash or modify any such subpoenas or orders;

(3) To take depositions or cause depositions to be taken;

(4) To receive relevant evidence and to rule upon the admission of evidence and offers of proof;

(5) To regulate the course of a proceeding and the conduct of parties and their counsel;

(6) To reject written submissions that materially fail to comply with the requirements of this part, and to deny confidential status to documents and testimony without prejudice until a party complies with all relevant rules of this chapter;

(7) To hold conferences for settlement, simplification of the issues, or any other proper purpose and require the attendance at any such conference of at least one representative of each party who has authority to negotiate concerning the resolution of issues in controversy;

(8) To inform the parties as to the availability of one or more alternative means of dispute resolution, and to encourage the use of such methods;

(9) To certify questions to the Director for the Director's determination in accordance with the rules of this part;

(10) To consider and rule upon, as justice may require, all procedural and other motions appropriate in adjudication proceedings;

(11) To issue and file preliminary findings and conclusions;

(12) To recuse oneself by motion made by a party or on the hearing officer's own motion;

(13) To issue such sanctions against parties or their counsel as may be necessary to deter repetition of sanctionable conduct or comparable conduct by others similarly situated, as provided for in this part or as otherwise necessary to the appropriate conduct of hearings and related proceedings, provided that no sanction will be imposed before providing the sanctioned person an opportunity to show cause why no such sanction should issue; and

(14) To do all other things necessary and appropriate to discharge the duties of a presiding officer.

§ 1081.105 Assignment, substitution, performance, disqualification of hearing officer.

(a) *How assigned.* In the event that more than one hearing officer is available to the Bureau for the conduct of proceedings under this part, the presiding hearing officer will be designated by the chief hearing officer, who will notify the parties of the hearing officer designated.

(b) *Interference.* Hearing officers will not be subject to the supervision or direction of, or responsible to, any officer, employee, or agent engaged in the performance of investigative or prosecuting functions for the Bureau, and all direction by the Bureau to the hearing officer concerning any adjudication proceedings must appear in and be made part of the record.

(c) *Disqualification of hearing officers.* (1) When a hearing officer deems the hearing officer disqualified to preside in a particular proceeding, the hearing officer must issue a notice stating that the hearing officer is withdrawing from the matter and setting forth the reasons therefore.

(2) Any party who has a reasonable, good faith basis to believe that a hearing officer has a personal bias, or is otherwise disqualified from hearing a case, may make a motion to the hearing officer that the hearing officer withdraw. The motion must be accompanied by an affidavit setting forth the facts alleged to constitute grounds for disqualification. Such motion must be filed at the earliest practicable time after the party learns, or could reasonably have learned, of the alleged grounds for disqualification. If the hearing officer does not disqualify the hearing officer within 14 days, the hearing officer must certify the motion to the Director pursuant to § 1081.211, together with any statement the hearing officer may wish to have considered by the Director. The Director must promptly determine the validity of the grounds alleged, either directly or on the report of another hearing officer appointed to conduct a hearing for that purpose, and will either direct the reassignment of the matter or confirm the hearing officer's continued role in the matter.

(d) *Unavailability of hearing officer.* If the hearing officer withdraws or is otherwise unable to perform the duties of the hearing officer, the chief hearing officer or the Director will designate another hearing officer to serve.

§ 1081.106 Deadlines

The deadlines for action by the hearing officer established by §§ 1081.203, 1081.205, 1081.211, 1081.212, and 1081.400, or elsewhere in this part, confer no substantive rights on respondents.

§ 1081.107 Appearance and practice in adjudication proceedings.

(a) *Appearance before the Bureau or a hearing officer*—(1) *By attorneys.* Any member in good standing of the bar of the highest court of any State may represent others before the Bureau if such attorney is not currently suspended or debarred from practice before the Bureau or by a court of the United States or of any State.

(2) *By non-attorneys.* So long as such individual is not currently suspended or debarred from practice before the Bureau:

(i) An individual may appear on the individual's own behalf;

(ii) A member of a partnership may represent the partnership;

(iii) A duly authorized officer of a corporation, trust, or association may represent the corporation, trust, or association; and

(iv) A duly authorized officer or employee of any government unit, agency, or authority may represent that unit, agency, or authority.

(3) *Notice of appearance.* Any individual acting as counsel on behalf of a party, including Enforcement counsel, must file a notice of appearance at or before the time that the individual submits papers or otherwise appears on behalf of a party in the adjudication proceeding. The notice of appearance must include a written declaration that the individual is currently qualified as provided in paragraph (a)(1) or (2) of this section and is authorized to represent the particular party, and if applicable, must include the attorney's jurisdiction of admission or qualification, attorney identification number, and a statement by the appearing attorney attesting to the attorney's good standing within the legal profession. By filing a notice of appearance on behalf of a party in an adjudication proceeding, the counsel agrees and represents that counsel is authorized to accept service on behalf of the represented party and that, in the event of withdrawal from representation, counsel will, if required by the hearing officer, continue to accept service until a new counsel has filed a notice of appearance or until the represented party indicates that the party will proceed on a pro se basis. The notice of appearance must provide the representative's email address, telephone number, and business address and, if different from the representative's addresses, electronic or other address at which the represented party may be served.

(b) *Sanctions.* Dilatory, obstructionist, egregious, contemptuous, or contumacious conduct at any phase of any adjudication proceeding may be grounds for exclusion or suspension of counsel from the proceeding. An order imposing a sanction must describe the sanctioned conduct and explain the basis for the sanction.

(c) *Standards of conduct; disbarment.* (1) All attorneys practicing before the Bureau must conform to the standards of ethical conduct required by the bars of which the attorneys are members.

(2) If for good cause shown, the Director believes that any attorney is not conforming to such standards, or that an attorney or counsel to a party has otherwise engaged in conduct warranting disciplinary action, the Director may issue an order requiring such person to show cause why the attorney should not be suspended or disbarred from practice before the Bureau. The alleged offender will be granted due opportunity to be heard in

the alleged offender's own defense and may be represented by counsel. Thereafter, if warranted by the facts, the Director may issue against the attorney or counsel an order of reprimand, suspension, or disbarment.

§ 1081.108 Good faith certification.

(a) *General requirement.* Every filing or submission of record following the issuance of a notice of charges must be signed by at least one counsel of record in counsel's individual name and must state counsel's address, email address, and telephone number. A party who acts as the party's own counsel must sign the party's individual name and state the party's address, email address, and telephone number on every filing or submission of record. Papers filed by electronic transmission may be signed with an ''/s/'' notation, which will be deemed the signature of the party or representative whose name appears below the signature line.

(b) *Effect of signature.* (1) The signature of counsel or a party constitutes a certification that: The counsel or party has read the filing or submission of record; to the best of one's knowledge, information, and belief formed after reasonable inquiry, the filing or submission of record is well-grounded in fact and is warranted by existing law or a good faith argument for the extension, modification, or reversal of existing law; and the filing or submission of record is not made for any improper purpose, such as to harass or to cause unnecessary delay or needless increase in the cost of litigation.

(2) If a filing or submission of record is not signed, the hearing officer must strike the filing or submission of record, unless it is signed promptly after the omission is called to the attention of the filer.

(c) *Effect of making oral motion or argument.* The act of making any oral motion or oral argument by any counsel or party constitutes a certification that to the best of one's knowledge, information, and belief formed after reasonable inquiry, one's statements are well-grounded in fact and are warranted by existing law or a good faith argument for the extension, modification, or reversal of existing law, and are not made for any improper purpose, such as to harass or to cause unnecessary delay or needless increase in the cost of litigation.

(d) *Sanctions.* Counsel or a party that fails to abide by the requirements of this section may be subject to sanctions pursuant to § 1081.104(b)(13).

§ 1081.109 Conflict of interest.

(a) *Conflict of interest in representation.* No person may appear as counsel for another person in an adjudication proceeding if it reasonably appears that such representation may be materially limited by that counsel's responsibilities to a third person or by the counsel's own interests. The hearing officer may take corrective measures at any stage of a proceeding to cure a conflict of interest in representation, including the issuance of an order limiting the scope of representation or disqualifying an individual from appearing in a representative capacity for the duration of the proceeding.

(b) *Certification and waiver.* If any person appearing as counsel represents two or more parties to an adjudication proceeding or also represents a non-party on a matter relevant to an issue in the proceeding, counsel must certify in writing at the time of filing the notice of appearance required by § 1081.107(a)(3):

(1) That the counsel has personally and fully discussed the possibility of conflicts of interest with each such party and non-party; and

(2) That each such party and/or non-party waives any right it might otherwise have had to assert any known conflicts of interest or to assert any conflicts of interest during the course of the proceeding.

§ 1081.110 Ex parte communication.

(a) *Definitions.* (1) For purposes of this section, *ex parte communication* means any material oral or written communication relevant to the merits of an adjudication proceeding that was neither on the record nor on reasonable prior notice to all parties that takes place between:

(i) An interested person not employed by the Bureau (including such person's counsel); and

(ii) The hearing officer handling the proceeding, the Director, or a decisional employee.

(2) A request for status of the proceeding does not constitute an ex parte communication.

(3) *Pendency of an adjudication proceeding* means the time from when the Bureau issues a notice of charges, unless the person responsible for the communication has knowledge that a notice of charges will be issued, in which case the pendency of an adjudication will commence at the time of that person's acquisition of such knowledge, or from when an order by a court of competent jurisdiction remanding a Bureau decision and order for further proceedings becomes effective, until the time the Director enters a final decision and order in the proceeding and the time permitted to seek reconsideration of that decision and order has elapsed. For purposes of this section, an order of remand by a court of competent jurisdiction is deemed to become effective when the Bureau's right to petition for review or for a writ of certiorari has lapsed without a petition having been filed, or when such a petition has been denied. If a petition for reconsideration of a Bureau decision is filed pursuant to § 1081.406, the matter will be considered to be a pending adjudication proceeding until the time the Bureau enters an order disposing of the petition.

(b) *Prohibited ex parte communications.* During the pendency of an adjudication proceeding, except to the extent required for the disposition of ex parte matters as authorized by law or as otherwise authorized by this part:

(1) No interested person not employed by the Bureau will make or knowingly cause to be made to the Director, or to the hearing officer, or to any decisional employee, an ex parte communication; and

(2) The Director, the hearing officer, or any decisional employee will not make or knowingly cause to be made to any interested person not employed by the Bureau any ex parte communication.

(c) *Procedure upon occurrence of ex parte communication.* If an ex parte communication prohibited by paragraph (b) of this section is received by the hearing officer, the Director, or any decisional employee, that person must cause all such written communications (or, if the communication is oral, a memorandum stating the substance of the communication) to be placed on the record of the proceeding and served on all parties. All other parties to the proceeding will have an opportunity, within 14 days of receipt of service of the ex parte communication, to file responses thereto and to recommend any sanctions, in accordance with paragraph (d) of this section, that they believe to be appropriate under the circumstances.

(d) *Sanctions*—(1) *Adverse action on claim.* Upon receipt of an ex parte communication knowingly made or knowingly caused to be made by a party and prohibited by paragraph (b) of this section, the Director or hearing officer, as appropriate, may, to the extent consistent with the interests of justice and the policy of the underlying statutes, require the party to show cause why the party's claim or interest in the proceeding should not be dismissed, denied, disregarded, or otherwise adversely affected on account of such violation.

(2) *Discipline of persons practicing before the Bureau.* The Director may, to the extent not prohibited by law, censure, suspend, or revoke the privilege to practice before the Bureau of any person who makes, or solicits the making of, an unauthorized ex parte communication.

(e) *Separation of functions.* Except to the extent required for the disposition of ex parte matters as authorized by law, the hearing officer may not consult a person or party on any matter relevant to the merits of the adjudication, unless upon notice and opportunity for all parties to participate. An employee or agent engaged in the performance of investigative or prosecuting functions for the Bureau in a case, other than the Director, may not, in that or a factually related case, participate or advise in the decision, preliminary findings and conclusions, or agency review of the preliminary findings and conclusions, except as witness or counsel in public proceedings.

§ 1081.111 Filing of papers.

(a) *Filing.* The following papers must be filed by parties in an adjudication proceeding: The notice of charges, proof of service of the notice of charges, notices of appearance, answer, the disclosure statement required under § 1081.201(e), motion, brief, request for issuance or enforcement of a subpoena, response, opposition, reply, notice of appeal, or petition for reconsideration. The hearing officer or Director (as applicable) will file all written orders, rulings, notices, or requests. Any papers required to be filed must be filed with the Office of Administrative Adjudication, except as otherwise provided in this section.

(b) *Manner of filing.* Unless otherwise specified by the Director or the hearing officer, filing may be accomplished by:

(1) Electronic transmission in accordance with guidance issued by the Office of Administrative Adjudication; or

(2) Any of the following methods if respondent demonstrates, in accordance with guidance issued by the Office of Administrative Adjudication, that electronic filing is not practicable:

(i) Personal delivery;

(ii) Delivery to a reliable commercial courier service or overnight delivery service; or

(iii) Mailing the papers through the U.S. Postal Service by First Class Mail, Registered Mail, Certified Mail or Express Mail.

(c) *Papers filed in an adjudication proceeding are presumed to be public.* Unless otherwise ordered by the Director or the hearing officer, all papers filed in connection with an adjudication proceeding are presumed to be open to the public. The Bureau may provide public access to and publish any papers filed in an adjudication proceeding except if there is a pending motion for a protective order filed pursuant to § 1081.119, or if there is an order from the Director, hearing officer, or a Federal court authorizing the confidential treatment of the papers filed.

§ 1081.112 Formal requirements as to papers filed.

(a) *Form.* All papers filed by parties must:

(1) Set forth the name, address, telephone number, and email address of the counsel or party making the filing;

(2) Be double-spaced (except for single-spaced footnotes and single-spaced indented quotations) and printed or typewritten on 8½ x 11 inch paper in 12-point or larger font;

(3) Include at the head of the paper, or on a title page, a caption setting forth the title of the case, the docket number of the proceeding, and a brief descriptive title indicating the purpose of the paper;

(4) Be paginated with margins at least one inch wide; and

(5) If filed by other than electronic means, be stapled, clipped, or otherwise fastened in a manner that lies flat when opened.

(b) *Signature.* All papers must be dated and signed as provided in § 1081.108.

(c) *Number of copies.* Unless otherwise specified by the Director or the hearing officer, one copy of all documents and papers must be filed if filing is by electronic transmission. If filing is accomplished by any other means, an original and one copy of all documents and papers must be filed, except that only one copy of transcripts of testimony and exhibits must be filed.

(d) *Authority to reject document for filing.* The Office of Administrative Adjudication or the hearing officer may reject a document for filing that materially fails to comply with this part.

(e) *Sensitive personal information.* Sensitive personal information means an individual's Social Security number, taxpayer identification number, financial account number, credit card or debit card number, driver's license number, State-issued identification number, passport number, date of birth (other than year), and any sensitive health information identifiable by individual, such as an individual's medical records. Sensitive personal information must not be included in, and must be redacted or omitted from, filings unless the person filing the paper determines that such information is relevant or otherwise necessary for the conduct of the proceeding. If the person filing a paper determines the sensitive personal information contained in the paper is relevant or necessary to the proceeding, the person must file the paper in accordance with paragraph (f) of this section, including filing an expurgated copy of the paper with the sensitive personal information redacted.

(f) *Confidential treatment of information in certain filings.* A party seeking confidential treatment of information contained in a filing must contemporaneously file either a motion requesting such treatment in accordance with § 1081.119 or a copy of the order from the Director, hearing officer, or Federal court authorizing such confidential treatment. The filing must comply with any applicable order of the Director or hearing officer and must be accompanied by:

(1) A complete, sealed copy of the documents containing the materials as to which confidential treatment is sought, with the allegedly confidential material clearly marked as such, and with the first page of the document labeled ''Under Seal.'' If the movant seeks or has obtained a protective order against disclosure to other parties as well as the public, copies of the documents will not be served on other parties; and

(2) An expurgated copy of the materials as to which confidential treatment is sought, with the allegedly confidential materials redacted. The redacted version must indicate any omissions with brackets or ellipses, and its pagination and depiction of text on each page must be identical to that of the sealed version.

(g) *Certificate of service.* Any papers filed in an adjudication proceeding must contain proof of service on all other parties or their counsel in the form of a statement of the date and manner of service and of the names of the persons served, certified by the person who made service. The certificate of service must be affixed to the papers filed and signed in accordance with § 1081.108.

§ 1081.113 Service of papers.

(a) *When required.* In every adjudication proceeding, each paper required to be filed by § 1081.111 must be served upon each party in the proceeding in accordance with the provisions of this section; provided, however, that absent an order to the contrary, no service is required for motions which are to be heard ex parte.

(b) *Upon a person represented by counsel.* Whenever service is required to

be made upon a person represented by counsel who has filed a notice of appearance pursuant to § 1081.107(a)(3), service shall be made pursuant to paragraph (c) of this section upon counsel, unless service upon the person represented is ordered by the Director or the hearing officer, as appropriate.

(c) *Method of service.* Except as provided in paragraph (d) of this section or as otherwise ordered by the hearing officer or the Director, service must be made by delivering a copy of the filing by one of the following methods:

(1) Transmitting the papers by electronic transmission where the persons so serving each other have consented to service by specified electronic transmission and provided the Bureau and the parties with notice of the means for service by electronic transmission (*e.g.,* email address or facsimile number);

(2) Handing a copy to the person required to be served; or leaving a copy at the person's office with a clerk or other person in charge thereof, or, if there is no one in charge, leaving it in a conspicuous place therein; or, if the office is closed or the person to be served has no office, leaving it at the person's dwelling or usual place of abode with some person of suitable age and discretion then residing therein;

(3) Mailing the papers through the U.S. Postal Service by First Cass Mail, Registered Mail, Certified Mail or Express Mail delivery addressed to the person; or

(4) Sending the papers through a third-party commercial courier service or express delivery service.

(d) *Service of certain papers by the Office of Enforcement or the Office of Administrative Adjudication*—(1) *Service of a notice of charges by the Office of Enforcement*—(i) *To individuals.* Notice of a proceeding shall be made to an individual by delivering a copy of the notice of charges to the individual or to an agent authorized by appointment or by law to receive such notice. Delivery, for purposes of this paragraph (d)(1)(i), means handing a copy of the notice to the individual; or leaving a copy at the individual's office with a clerk or other person in charge thereof; or leaving a copy at the individual's dwelling house or usual place of abode with some person of suitable age and discretion then residing therein; or sending a copy of the notice addressed to the individual through the U.S. Postal Service by Registered Mail, Certified Mail or Express Mail delivery, or by third-party commercial carrier, for overnight delivery and obtaining a confirmation of receipt.

(ii) *To corporations or entities.* Notice of a proceeding must be made to a person other than a natural person by delivering a copy of the notice of charges to an officer, managing or general agent, or any other agent authorized by appointment or law to receive such notice, by any method specified in paragraph (d)(1)(i) of this section.

(iii) *Upon persons registered with the Bureau.* In addition to any other method of service specified in paragraph (d)(1)(i) or (ii) of this section, notice may be made to a person currently registered with the Bureau by sending a copy of the notice of charges addressed to the most recent business address shown on the person's registration form by U.S. Postal Service certified, registered, or Express Mail and obtaining a confirmation of receipt or attempted delivery.

(iv) *Upon persons in a foreign country.* Notice of a proceeding to a person in a foreign country may be made by any method specified in paragraph (d)(1) of this section, or by any other method reasonably calculated to give notice, provided that the method of service used is not prohibited by the law of the foreign country.

(v) *Record of service.* The Office of Enforcement will maintain and file a record of service of the notice of charges on parties, identifying the party given notice, the method of service, the date of service, the address to which service was made, and the person who made service. If service is made in person, the certificate of service must state, if available, the name of the individual to whom the notice of charges was given. If service is made by U.S. Postal Service Registered Mail, Certified Mail, or Express Mail, the Office of Enforcement will maintain the confirmation of receipt or attempted delivery. If service is made to an agent authorized by appointment to receive service, the certificate of service must be accompanied by evidence of the appointment.

(vi) *Waiver of service.* In lieu of service as set forth in paragraph (d)(1)(i) or (ii) of this section, the party may be provided a copy of the notice of charges by First Class Mail or other reliable means if a waiver of service is obtained from the party and placed in the record.

(2) *Service of papers by the Office of Administrative Adjudication.* Unless otherwise ordered by the hearing officer or Director, the Office of Administrative Adjudication must serve papers filed by the hearing officer or Director promptly on each party pursuant to any method of service authorized under paragraph (c) or (d)(1) of this section. Unless otherwise ordered by the hearing officer or Director, if a party is represented by counsel who has filed a notice of appearance pursuant to § 1081.107(a)(3), the Office of Administrative Adjudication serves that party by serving its counsel.

§ 1081.114 Construction of time limits.

(a) *General rule.* In computing any time period prescribed by this part, by order of the Director or a hearing officer, or by any applicable statute, exclude the day of the event that triggers the period, count every day, including intermediate Saturdays, Sundays, and Federal holidays, and include the last day of the period unless it is a Saturday, Sunday, or Federal holiday as set forth in 5 U.S.C. 6103(a). When the last day is a Saturday, Sunday, or Federal holiday, the period runs until the end of the next day that is not a Saturday, Sunday, or Federal holiday.

(b) *When papers are deemed to be filed or served.* Filing and service are deemed to be effective:

(1) In the case of personal service or same day commercial courier delivery, upon actual receipt by person served;

(2) In the case of overnight commercial delivery service, Express Mail delivery, First Class Mail, Registered Mail, or Certified Mail, upon deposit in or delivery to an appropriate point of collection; or

(3) In the case of electronic transmission, upon transmission.

(c) *Calculation of time for service and filing of responsive papers.* Whenever a time limit is measured by a prescribed period from the service of any notice or paper, the applicable time limits are calculated as follows:

(1) If service is made by First Class Mail, Registered Mail, or Certified Mail, add three calendar days to the prescribed period;

(2) If service is made by Express Mail or overnight delivery service, add one calendar day to the prescribed period; or

(3) If service is made by electronic transmission, add one calendar day to the prescribed period.

§ 1081.115 Change of time limits.

(a) *Generally.* Except as otherwise provided by law, the hearing officer may, in any proceeding before him or her, for good cause shown, extend the time limits prescribed by this part or by any notice or order issued in the proceedings. After appeal to the Director pursuant to § 1081.402, the Director may grant extensions of the time limits for good cause shown. Extensions may be granted on the motion of a party after notice and opportunity to respond is afforded all non-moving parties or on

the Director's or the hearing officer's own motion, as appropriate.

(b) *Considerations in determining whether to extend time limits or grant postponements, adjournments and extensions.* Motions for extensions of time filed pursuant to paragraph (a) of this section are generally disfavored. In determining whether to grant any motions, the Director or hearing officer, as appropriate, will consider, in addition to any other relevant factors:

(1) The length of the proceeding to date;

(2) The number of postponements, adjournments or extensions already granted;

(3) The stage of the proceedings at the time of the motion;

(4) The impact of the motion on the hearing officer's ability to complete the proceeding in the time specified by § 1081.400(a); and

(5) Any other matters as justice may require.

(c) *Time limit.* Postponements, adjournments, or extensions of time for filing papers may not exceed 21 days unless the Director or the hearing officer, as appropriate, states on the record or sets forth in a written order the reasons why a longer period of time is necessary.

(d) *No effect on deadline for preliminary findings and conclusions.* The granting of any extension of time pursuant to this section does not affect any deadlines set pursuant to § 1081.400(a).

§ 1081.116 Witness fees and expenses.

Respondents must pay to witnesses subpoenaed for testimony or depositions on their behalf the same fees for attendance and mileage as are paid in the United States district courts in proceedings in which the United States is a party, provided that, in the case of a deposition subpoena addressed to a party, no witness fees or mileage need be paid. Fees for witnesses must be tendered in advance by any respondent requesting the issuance of a subpoena, except that fees and mileage need not be tendered in advance where the Office of Enforcement is the party requesting the subpoena. The Bureau must pay to witnesses subpoenaed for testimony or depositions on behalf of the Office of Enforcement the same fees for attendance and mileage as are paid in the United States district courts in proceedings in which the United States is a party, but the Bureau need not tender such fees in advance.

§ 1081.117 Bureau's right to conduct examination, collect information.

Nothing contained in this part limits in any manner the right of the Bureau to conduct any examination, inspection, or visitation of any person, to conduct or continue any form of investigation authorized by law, to collect information in order to monitor the market for risks to consumers in the offering or provision of consumer financial products or services, or to otherwise gather information in accordance with law.

§ 1081.118 Collateral attacks on adjudication proceedings.

Unless a court of competent jurisdiction, or the Director for good cause, so directs, if an interlocutory appeal or collateral attack is brought in any court concerning all or any part of an adjudication proceeding, the challenged adjudication proceeding will continue without regard to the pendency of that court proceeding. No default or other failure to act as directed in the adjudication proceeding within the times prescribed in this part will be excused based on the pendency before any court of any interlocutory appeal or collateral attack.

§ 1081.119 Confidential information; protective orders.

(a) *Rights of third parties.* Any party that intends to disclose information obtained from a third party that is subject to a claim of confidentiality must provide notice to the third party at least seven days prior to the proposed disclosure of such information. In response to such notice, the third party may consent to the disclosure of such information, which may be conditioned on the entry of an appropriate protective order, or may intervene in the proceeding for the limited purpose of moving for a protective order pursuant to this section. Any written filing by a party that contains such confidential information must be accompanied by a certification that proper notice was provided. The act of making any oral motion or oral argument by any counsel or party which contains such confidential information constitutes a certification that proper notice was provided. A third party wishing to intervene for purposes of protecting its confidential information may file a single motion, in conformity with all applicable rules, setting forth the basis of both the third party's right to intervene and the basis for the protective order, in conformity with paragraph (b) of this section.

(b) *Procedure.* In any adjudication proceeding, a party, including a third party who has intervened pursuant to paragraph (a) of this section, may file a motion requesting a protective order to limit from disclosure to other parties or to the public documents or testimony that contain confidential information. The motion should include a general summary or extract of the documents or testimony without revealing confidential details, and a copy of the proposed protective order. A motion for confidential treatment of documents should be filed in accordance with § 1081.112(f), and all other applicable rules of this chapter.

(c) *Basis for issuance.* Documents and testimony introduced in a public hearing, or filed in connection with an adjudication proceeding, are presumed to be public. A motion for a protective order will be granted:

(1) Upon a finding that public disclosure will likely result in a clearly defined, serious injury to the party or third party requesting confidential treatment;

(2) After finding that the material constitutes sensitive personal information, as defined in § 1081.112(e);

(3) If all parties, including third parties to the extent their information is at issue, stipulate to the entry of a protective order; or

(4) Where public disclosure is prohibited by law.

(d) *Requests for additional information supporting confidentiality.* The hearing officer may require a movant under paragraph (b) of this section to furnish in writing additional information with respect to the grounds for confidentiality. Failure to supply the information so requested within seven days from the date of receipt by the movant of a notice of the information required will be deemed a waiver of the objection to public disclosure of that portion of the documents to which the additional information relates, unless the hearing officer otherwise orders for good cause shown at or before the expiration of such seven-day period.

(e) *Confidentiality of documents pending decision.* Pending a determination of a motion under this section, the documents as to which confidential treatment is sought and any other documents that would reveal the confidential information in those documents will be maintained under seal and may be disclosed only in accordance with orders of the hearing officer. Any order issued in connection with a motion under this section will be public unless the order would disclose information as to which a protective order has been granted, in which case that portion of the order that would reveal the protected information will be nonpublic.

§ 1081.120 Settlement.

(a) *Availability.* Any respondent in an adjudication proceeding instituted under this part, may, at any time, propose in writing an offer of settlement.

(b) *Procedure.* An offer of settlement must state that it is made pursuant to this section; must recite or incorporate as a part of the offer the provisions of paragraphs (c)(3) and (4) of this section; must be signed by the person making the offer, not by counsel; and must be submitted to enforcement counsel.

(c) *Consideration of offers of settlement.* (1) Offers of settlement will be considered when time, the nature of the proceedings, and the public interest permit.

(2) Any settlement offer will be presented to the Director with a recommendation, except that, if the recommendation is unfavorable, the offer will not be presented to the Director unless the person making the offer so requests.

(3) By submitting an offer of settlement, the person making the offer waives, subject to acceptance of the offer:

(i) All hearings pursuant to the statutory provisions under which the proceeding has been instituted;

(ii) The filing of proposed findings of fact and conclusions of law;

(iii) Proceedings before, and preliminary findings and conclusions by, a hearing officer;

(iv) All post-hearing procedures;

(v) Judicial review by any court; and

(vi) Any objection to the jurisdiction of the Bureau under section 1053 of the Consumer Financial Protection Act of 2010 (12 U.S.C. 5563).

(4) By submitting an offer of settlement the person further waives:

(i) Such provisions of this part or other requirements of law as may be construed to prevent any Bureau employee from participating in the preparation of, or advising the Director as to, any order, opinion, finding of fact, or conclusion of law to be entered pursuant to the offer; and

(ii) Any right to claim bias or prejudgment by the Director based on the consideration of or discussions concerning settlement of all or any part of the proceeding.

(5) If the Director rejects the offer of settlement, the person making the offer will be notified of the Director's action and the offer of settlement will be deemed withdrawn. The rejected offer will not constitute a part of the record in any proceeding against the person making the offer, provided, however, that rejection of an offer of settlement does not affect the continued validity of waivers pursuant to paragraph (c)(4) of this section with respect to any discussions concerning the rejected offer of settlement.

(d) *Consent orders.* If the Director accepts the offer of settlement, all terms and conditions of a settlement entered into under this section will be recorded in a written stipulation signed by each settling respondent, and a consent order concluding the proceeding as to the settling respondents. The stipulation and consent order must be filed pursuant to § 1081.111, and must recite or incorporate as a part of the stipulation the provisions of paragraphs (c)(3) and (4) of this section. The Director will then issue a consent order, which will be a final order concluding the proceeding as to the settling respondents.

§ 1081.121 Cooperation with other agencies.

It is the policy of the Bureau to cooperate with other governmental agencies to avoid unnecessary overlap or duplication of regulatory functions.

Subpart B—Initiation of Proceedings and Prehearing Rules

§ 1081.200 Commencement of proceeding and contents of notice of charges.

(a) *Commencement of proceeding.* A proceeding governed by subparts A through D of this part is commenced when the Bureau, through the Office of Enforcement, files a notice of charges in accordance with § 1081.111. The notice of charges must be served by the Office of Enforcement upon the respondent in accordance with § 1081.113(d)(1).

(b) *Contents of a notice of charges.* The notice of charges must set forth:

(1) The legal authority for the proceeding and for the Bureau's jurisdiction over the proceeding;

(2) A statement of the matters of fact and law showing that the Bureau is entitled to relief;

(3) A proposed order or request for an order granting the relief sought;

(4) The time and place of the hearing as required by law or regulation;

(5) The time within which to file an answer as required by law or regulation;

(6) That the answer must be filed and served in accordance with subpart A of this part; and

(7) The docket number for the adjudication proceeding.

(c) *Publication of notice of charges.* Unless otherwise ordered by the Director, the notice of charges will be given general circulation by release to the public, by publication on the Bureau's website and, where directed by the hearing officer or the Director, by publication in the **Federal Register**. The Bureau may publish any notice of charges after 14 days from the date of service except if there is a pending motion for a protective order filed pursuant to § 1081.119.

(d) *Commencement of proceeding through a consent order.* Notwithstanding paragraph (a) of this section, where the parties agree to settlement before the filing of a notice of charges, a proceeding may be commenced by filing a stipulation and consent order. The stipulation and consent order must be filed pursuant to § 1081.111. The stipulation must contain the information required under § 1081.120(d), and the consent order must contain the information required under paragraphs (b)(1) and (2) of this section. The proceeding will be concluded upon issuance of the consent order by the Director.

(e) *Voluntary dismissal*—(1) *Without an order.* The Office of Enforcement may voluntarily dismiss an adjudication proceeding without an order entered by a hearing officer by filing either:

(i) A notice of dismissal before the respondent(s) serves an answer; or

(ii) A stipulation of dismissal signed by all parties who have appeared.

(2) *Effect.* Unless the notice or stipulation states otherwise, the dismissal is without prejudice, and does not operate as an adjudication on the merits.

§ 1081.201 Answer and disclosure statement and notification of financial interest.

(a) *Time to file answer.* Within 14 days of service of the notice of charges, respondent must file an answer as designated in the notice of charges.

(b) *Content of answer.* An answer must specifically respond to each paragraph or allegation of fact contained in the notice of charges and must admit, deny, or state that the party lacks sufficient information to admit or deny each allegation of fact. A statement of lack of information has the effect of a denial. Denials must fairly meet the substance of each allegation of fact denied; general denials are not permitted. When a respondent denies part of an allegation, that part must be denied and the remainder specifically admitted. Any allegation of fact in the notice of charges which is not denied in the answer is deemed admitted for purposes of the proceeding. A respondent is not required to respond to the portion of a notice of charges that constitutes the request for relief or proposed order. A respondent must affirmatively state in the answer any avoidance or affirmative defense,

including but not limited to res judicata and statute of limitations. Failure to do so will be deemed a waiver.

(c) *If the allegations of the notice of charges are admitted.* If the respondent elects not to contest the allegations of fact set forth in the notice of charges, the answer will consist of a statement that the respondent admits all the material allegations to be true. Such an answer constitutes a waiver of hearings as to the facts alleged in the notice of charges, and together with the notice of charges will provide a record basis on which the hearing officer will issue preliminary findings and conclusions, containing appropriate findings and conclusions and a proposed order disposing of the proceeding. In such an answer, the respondent may, however, reserve the right to submit proposed findings of fact and conclusions of law under § 1081.305.

(d) *Default.* (1) Failure of a respondent to file an answer within the time provided will be deemed to constitute a waiver of the respondent's right to appear and contest the allegations of the notice of charges and to authorize the hearing officer, without further notice to the respondent, to find the facts to be as alleged in the notice of charges and to enter preliminary findings and conclusions containing appropriate findings and conclusions. In such cases, respondent will have no right to appeal pursuant to § 1081.402, but must instead proceed pursuant to paragraph (d)(2) of this section.

(2) A motion to set aside a default must be made within a reasonable time, state the reasons for the failure to appear or defend, and specify the nature of the proposed defense in the proceeding. In order to prevent injustice and on such conditions as may be appropriate, the hearing officer, at any time prior to the filing of the preliminary findings and conclusions, or the Director, at any time, may for good cause shown set aside a default.

(e) *Disclosure statement and notification of financial interest*—(1) *Who must file; contents.* A respondent, nongovernmental intervenor, or nongovernmental amicus must file a disclosure statement and notification of financial interest that:

(i) Identifies any parent corporation, any publicly owned corporation owning ten percent or more of its stock, and any publicly owned corporation not a party to the proceeding that has a financial interest in the outcome of the proceeding and the nature of that interest; or

(ii) States that there are no such corporations.

(2) *Time for filing; supplemental filing.* A respondent, nongovernmental intervenor, or nongovernmental amicus must:

(i) File the disclosure statement with its first appearance, pleading, motion, response, or other request addressed to the hearing officer or the Bureau; and

(ii) Promptly file a supplemental statement if any required information changes.

§ 1081.202 Amended pleadings.

(a) *Amendments before the hearing.* The notice of charges, answer, or any other pleading may be amended or supplemented only with the opposing party's written consent or leave of the hearing officer. The respondent must answer an amended notice of charges within the time remaining for the respondent's answer to the original notice of charges, or within 14 days after service of the amended notice of charges, whichever is later, unless the hearing officer orders otherwise for good cause.

(b) *Amendments to conform to the evidence.* When issues not raised in the notice of charges or answer are tried at the hearing by express or implied consent of the parties, they will be treated in all respects as if they had been raised in the notice of charges or answer, and no formal amendments are required. If evidence is objected to at the hearing on the ground that it is not within the issues raised by the notice of charges or answer, the hearing officer may admit the evidence when admission is likely to assist in adjudicating the merits of the action and the objecting party fails to satisfy the hearing officer that the admission of such evidence would unfairly prejudice that party's action or defense upon the merits. The hearing officer may grant a continuance to enable the objecting party to meet such evidence.

§ 1081.203 Scheduling conference.

(a) *Meeting of the parties before scheduling conference.* As early as practicable before the scheduling conference described in paragraph (e) of this section, counsel for the parties must meet to discuss the nature and basis of their claims and defenses and the possibilities for a prompt settlement or resolution of the case. The parties must also discuss and agree, if possible, on the matters set forth in paragraph (e) of this section.

(b) *Scheduling conference disclosure.* After the meeting required in paragraph (a) of this section and at least seven days prior to the scheduling conference described in paragraph (e) of this section, the parties must exchange a scheduling conference disclosure, which must be signed by the party or by the party's attorney if one has appeared on behalf of the party. The scheduling conference disclosure must include:

(1) A factual summary of the case, a summary of all factual and legal issues in dispute, and a summary of all factual and legal bases supporting each defense; and

(2) The following information about the evidence that the party may present at the hearing other than solely for impeachment:

(i) The name, address, and telephone number of each witness, together with a summary of the witness's anticipated testimony; and

(ii) An identification of each document or other exhibit, including summaries of other evidence, along with a copy of each document or exhibit identified unless the document or exhibit has already been produced to the other party.

(c) *Duty to supplement.* A party must supplement or correct the scheduling conference disclosure in a timely manner if the party acquires other information that it intends to rely upon at a hearing.

(d) *Failure to disclose—harmless error.* In the event that information required to be disclosed in the scheduling conference disclosure is not disclosed, no rehearing or redecision of a proceeding already heard or decided will be required unless the other party establishes that the failure to disclose was not harmless error.

(e) *Scheduling conference.* Within 21 days of service of the notice of charges or such other time as the parties and hearing officer may agree, counsel for all parties must appear before the hearing officer in person at a specified time and place or by electronic means for the purpose of scheduling the course and conduct of the proceeding. This meeting is called a *scheduling conference.* At the scheduling conference, counsel for the parties must be prepared to address:

(1) Determination of the dates and location of the hearing, including, in proceedings under section 1053(b) of the Consumer Financial Protection Act of 2010 (12 U.S.C. 5563(b)), whether the hearing should commence later than 60 days after service of the notice of charges, considering, among other factors, whether the respondent intends to file a dispositive motion or to seek the issuance of subpoenas;

(2) Simplification and clarification of the issues;

(3) Amendments to pleadings;

(4) Settlement of any or all issues;

(5) Production of documents as set forth in § 1081.206 and of witness

statements as set forth in § 1081.207, and prehearing production of documents in response to subpoenas *duces tecum* as set forth in § 1081.208;

(6) Whether the parties intend to file dispositive motions;

(7) Whether the parties intend to seek the issuance of subpoenas, the identity of any anticipated deponents or subpoena recipients, and a schedule for completing that discovery;

(8) A schedule for the exchange of expert reports and the taking of expert depositions, if any; and

(9) Such other matters as may aid in the orderly disposition of the proceeding.

(f) *Transcript.* The hearing officer may require that a scheduling conference be recorded by a court reporter. A transcript of the conference and any materials filed, including orders, becomes part of the record of the proceeding. A party may obtain a copy of the transcript at that party's expense.

(g) *Scheduling order.* At or within seven days following the conclusion of the scheduling conference, the hearing officer will serve on each party an order setting forth the date and location of the hearing and any agreements reached and any procedural determinations made.

(h) *Failure to appear, default.* Any person who is named in a notice of charges as a person against whom findings may be made or sanctions imposed and who fails to appear, in person or through counsel, at a scheduling conference of which the person has been duly notified may be deemed in default pursuant to § 1081.201(d)(1). A party may make a motion to set aside a default pursuant to § 1081.201(d)(2).

(i) *Public access.* The scheduling conference will be public unless the hearing officer determines, based on the standard set forth in § 1081.119(c), that the conference (or any part thereof) should be closed to the public.

§ 1081.204 Consolidation, severance, or bifurcation of proceedings.

(a) *Consolidation.* (1) On the motion of any party, or on the hearing officer's own motion, the hearing officer may consolidate, for some or all purposes, any two or more proceedings, if each such proceeding involves or arises out of the same transaction, occurrence or series of transactions or occurrences, or involves at least one common respondent or a material common question of law or fact, unless such consolidation would cause unreasonable delay or injustice.

(2) In the event of consolidation under paragraph (a)(1) of this section, appropriate adjustment to the prehearing schedule may be made to avoid unnecessary expense, inconvenience, or delay.

(b) *Severance.* The hearing officer may, upon the motion of any party, sever the proceeding for separate resolution of the matter as to any respondent only if the hearing officer finds that:

(1) Undue prejudice or injustice to the moving party would result from not severing the proceeding; and

(2) Such undue prejudice or injustice would outweigh the interests of judicial economy and expedition in the complete and final resolution of the proceeding.

(c) *Bifurcation.* The Director may order that the proceeding be divided into two or more stages, if the Director determines that it would promote efficiency in the proceeding or for other good cause. For example, the Director may order that the proceeding have two stages, so that at the conclusion of the first stage the Director issues a decision on whether there have been violations of law and at the conclusion of the second stage the Director issues a final decision and order, including with respect to any remedies. The Director may make an order under this paragraph (c) either on the motion of a party or on the Director's own motion after inviting submissions by the parties. The Director may include, in that order or in later orders, modifications to the procedures in this part in order to effectuate an efficient division into stages, or the Director may assign such authority to the hearing officer. Only the decision and order of the Director after the final stage, and not a decision of the Director after an earlier stage, will be a final decision and order for purposes of §§ 1081.110, 1081.405(d) and (e), 1081.407, and 1081.502 and section 1053(b) of the Consumer Financial Protection Act of 2010 (12 U.S.C. 5563(b)).

§ 1081.205 Non-dispositive motions.

(a) *Scope.* This section applies to all motions except motions to dismiss and motions for summary disposition. A non-dispositive motion filed pursuant to another section of this part must comply with any specific requirements of that section and this section to the extent the requirements in this section are not inconsistent.

(b) *In writing.* (1) Unless made during a hearing or conference, an application or request for an order or ruling must be made by written motion.

(2) All written motions must state with particularity the relief sought and must be accompanied by a proposed order.

(3) No oral argument may be held on written motions except as otherwise directed by the hearing officer. Written memoranda, briefs, affidavits or other relevant material or documents may be filed in support of or in opposition to a motion.

(c) *Oral motions.* The Director or the hearing officer, as appropriate, may order that an oral motion be submitted in writing.

(d) *Responses and replies.* (1) Except as otherwise provided in this section, within 14 days after service of any written motion, or within such other period of time as may be established by the hearing officer or the Director, as appropriate, any party may file a written response to a motion. The hearing officer will not rule on any oral or written motion before each party has had an opportunity to file a response.

(2) Reply briefs, if any, may be filed within seven days after service of the response.

(3) The failure of a party to oppose a written motion or an oral motion made on the record is deemed consent by that party to the entry of an order substantially in the form of the order accompanying the motion.

(e) *Length limitations.* No motion subject to this section (together with the brief in support of the motion) or brief in response to the motion may exceed 15 pages in length, exclusive of pages containing the table of contents, table of authorities, and any addendum that consists solely of copies of applicable cases, pertinent legislative provisions or rules, and exhibits. No reply brief may exceed six pages in length, exclusive of pages containing the table of contents, table of authorities, and any addendum that consists solely of copies of applicable cases, pertinent legislative provisions or rules, and exhibits. Motions for leave to file motions and briefs in excess of these limitations are disfavored.

(f) *Meet and confer requirements.* Each motion filed under this section must be accompanied by a signed statement representing that counsel for the moving party has conferred or made a good faith effort to confer with opposing counsel in a good faith effort to resolve by agreement the issues raised by the motion and has been unable to reach such an agreement. If some of the matters in controversy have been resolved by agreement, the statement must specify the matters so resolved and the matters remaining unresolved.

(g) *Ruling on non-dispositive motions.* Unless otherwise provided by a relevant section of this part, a hearing officer will

rule on non-dispositive motions. Such ruling must be issued within 14 days after the expiration of the time period allowed for the filing of all motion papers authorized by this section. The Director, for good cause, may extend the time allowed for a ruling.

(h) *Proceedings not stayed.* A motion under consideration by the Director or the hearing officer does not stay proceedings before the hearing officer unless the Director or the hearing officer, as appropriate, so orders.

(i) *Dilatory motions.* Frivolous, dilatory, or repetitive motions are prohibited. The filing of such motions may form the basis for sanctions.

§ 1081.206 Availability of documents for inspection and copying.

For purposes of this section, the term *documents* includes any book, document, record, report, memorandum, paper, communication, tabulation, chart, logs, electronic files, or other data or data compilations stored in any medium.

(a) *Documents to be available for inspection and copying.* (1) Unless otherwise provided by this section, or by order of the hearing officer, the Office of Enforcement will make available for inspection and copying by any respondent documents obtained by the Office of Enforcement prior to the institution of proceedings, from persons not employed by the Bureau, in connection with the investigation leading to the institution of proceedings. Such documents will include:

(i) Any documents turned over in response to civil investigative demands or other written requests to provide documents or to be interviewed issued by the Office of Enforcement;

(ii) All transcripts and transcript exhibits; and

(iii) Any other documents obtained from persons not employed by the Bureau.

(2) In addition, the Office of Enforcement will make available for inspection and copying by any respondent:

(i) Each civil investigative demand or other written request to provide documents or to be interviewed issued by the Office of Enforcement in connection with the investigation leading to the institution of proceedings; and

(ii) Any final examination or inspection reports prepared by any other Office of the Bureau if the Office of Enforcement either intends to introduce any such report into evidence or to use any such report to refresh the recollection of, or impeach, any witness.

(3) Nothing in paragraph (a) of this section limits the right of the Office of Enforcement to make available any other document, or limits the right of a party to seek access to or production pursuant to subpoena of any other document, or limits the authority of the hearing officer to order the production of any document pursuant to subpoena.

(4) Nothing in paragraph (a) of this section requires the Office of Enforcement to produce a final examination or inspection report prepared by any other Office of the Bureau or any other government agency to a respondent who is not the subject of that report.

(b) *Documents that may be withheld.* (1) The Office of Enforcement may withhold a document if:

(i) The document is privileged;

(ii) The document is an internal memorandum, note, or writing prepared by a person employed by the Bureau or another Government agency, other than an examination or supervision report as specified in paragraph (a)(2)(ii) of this section, or would otherwise be subject to the work product doctrine and will not be offered in evidence;

(iii) The document was obtained from a domestic or foreign governmental entity and is either not relevant to the resolution of the proceeding or was provided on condition that the information not be disclosed;

(iv) The document would disclose the identity of a confidential source;

(v) Applicable law prohibits the disclosure of the document;

(vi) The document reflects only settlement negotiations between the Office of Enforcement and a person or entity who is not a current respondent in the proceeding; or

(vii) The hearing officer grants leave to withhold a document or category of documents as not relevant to the subject matter of the proceeding or otherwise, for good cause shown.

(2) Nothing in paragraph (b)(1) of this section authorizes the Office of Enforcement in connection with an adjudication proceeding to withhold material exculpatory evidence in the possession of the Office that would otherwise be required to be produced pursuant to paragraph (a) of this section.

(c) *Withheld document list.* The hearing officer may require the Office of Enforcement to produce a list of documents or categories of documents withheld pursuant to paragraphs (b)(1)(i) through (vi) of this section or to submit to the hearing officer any document withheld, except for any documents that are being withheld pursuant to paragraph (b)(1)(iii) of this section, in which case the Office of Enforcement must inform the other parties of the fact that such documents are being withheld, but no further disclosures regarding those documents will be required. The hearing officer may determine whether any withheld document should be made available for inspection and copying. When similar documents are withheld pursuant to paragraphs (b)(1)(i) through (vi) of this section, those documents may be identified by category instead of by individual document. The hearing officer retains discretion to determine when an identification by category is insufficient.

(d) *Timing of inspection and copying.* Unless otherwise ordered by the hearing officer, the Office of Enforcement must commence making documents available to a respondent for inspection and copying pursuant to this section no later than 14 days after service of the notice of charges.

(e) *Place of inspection and copying.* Documents subject to inspection and copying pursuant to this section will be made available to the respondent for inspection and copying at the Bureau office where they are ordinarily maintained, or at such other place as the parties, in writing, may agree. A respondent will not be given custody of the documents or leave to remove the documents from the Bureau's offices pursuant to the requirements of this section other than by written agreement of the Office of Enforcement. Such agreement must specify the documents subject to the agreement, the date they must be returned, and such other terms or conditions as are appropriate to provide for the safekeeping of the documents. If the Office of Enforcement determines that production of some or all the documents required to be produced under this section can be produced in an electronic format, the Office of Enforcement may instead produce the documents in an electronic format.

(f) *Copying costs and procedures.* The respondent may obtain a photocopy of any documents made available for inspection or, at the discretion of the Office of Enforcement, electronic copies of such documents. The respondent is responsible for the cost of photocopying. Unless otherwise ordered, charges for copies made by the Office of Enforcement at the request of the respondent will be at the rate charged pursuant to part 1070 of this chapter. The respondent will be given access to the documents at the Bureau's offices or such other place as the parties may agree during normal business hours for copying of documents at the respondent's expense.

(g) *Duty to supplement.* If the Office of Enforcement acquires information that it intends to rely upon at a hearing after making its disclosures under paragraph (a)(1) of this section, the Office of Enforcement must supplement its disclosures to include such information.

(h) *Failure to make documents available—harmless error.* In the event that a document required to be made available to a respondent pursuant to this section is not made available by the Office of Enforcement, no rehearing or redecision of a proceeding already heard or decided will be required unless the respondent establishes that the failure to make the document available was not harmless error.

(i) *Disclosure of privileged or protected information or communications; scope of waiver; obligations of receiving party.* (1) The disclosure of privileged or protected information or communications by any party during an adjudication proceeding does not operate as a waiver if:

(i) The disclosure was inadvertent;

(ii) The holder of the privilege or protection took reasonable steps to prevent disclosure; and

(iii) The holder promptly took reasonable steps to rectify the error, including notifying any party that received the information or communication of the claim and the basis for it.

(2) After being notified, the receiving party must promptly return, sequester, or destroy the specified information and any copies it has; must not use or disclose the information until the claim is resolved; must take reasonable steps to retrieve the information if the party disclosed it before being notified; and may promptly present the information to the hearing officer under seal for a determination of the claim. The producing party must preserve the information until the claim is resolved.

(3) The disclosure of privileged or protected information or communications by any party during an adjudication proceeding will waive the privilege or protection, with respect to other parties to the proceeding, as to undisclosed information or communications only if:

(i) The waiver is intentional;

(ii) The disclosed and undisclosed information or communications concern the same subject matter; and

(iii) They ought in fairness to be considered together.

§ 1081.207 Production of witness statements.

(a) *Availability.* Any respondent may move that the Office of Enforcement produce for inspection and copying any statement of any person called or to be called as a witness by the Office of Enforcement that pertains, or is expected to pertain, to the witness's direct testimony and that would be required to be produced pursuant to the Jencks Act, 18 U.S.C. 3500, if the adjudication proceeding were a criminal proceeding. For purposes of this section, the term ''statement'' has the meaning set forth in 18 U.S.C. 3500(e). Such production will be made at a time and place fixed by the hearing officer and will be made available to any party, provided, however, that the production must be made under conditions intended to preserve the items to be inspected or copied.

(b) *Failure to produce—harmless error.* In the event that a statement required to be made available to a respondent pursuant to this section is not made available by the Office of Enforcement, no rehearing or redecision of a proceeding already heard or decided will be required unless the respondent establishes that the failure to make the statement available was not harmless error.

§ 1081.208 Subpoenas.

(a) *Availability.* In connection with any hearing ordered by the hearing officer or any deposition permitted under § 1081.209, a party may request the issuance of subpoenas requiring the attendance and testimony of witnesses at such depositions or at the designated time and place of the hearing, or the production of documentary or other tangible evidence returnable at any designated time or place.

(b) *Procedure.* Unless made on the record at a hearing, requests for issuance of a subpoena must be made in writing, and filed and served on each party pursuant to subpart A of this part. The request must contain a proposed subpoena and a brief statement showing the general relevance and reasonableness of the scope of testimony or documents sought.

(c) *Signing may be delegated.* A hearing officer may authorize issuance of a subpoena, and may delegate the manual signing of the subpoena to any other person.

(d) *Standards for issuance of subpoenas requiring the attendance and testimony of witnesses at the hearing or the production of documentary or other tangible evidence.* The hearing officer will promptly issue any subpoena requiring the attendance and testimony of witnesses at the designated time and place of the hearing or the production of documentary or other tangible evidence. Where it appears to the hearing officer that the subpoena sought may be unreasonable, oppressive, excessive in scope, or unduly burdensome, the hearing officer may, as a condition precedent to the issuance of the subpoena, require the person seeking the subpoena to show further the general relevance and reasonable scope of the testimony or other evidence sought. If after consideration of all the circumstances, the hearing officer determines that the subpoena or any of its terms is unreasonable, oppressive, excessive in scope, or unduly burdensome, the hearing officer may refuse to issue the subpoena, or issue it only upon such conditions as fairness requires. In making the foregoing determination, the hearing officer may inquire of the other parties whether they will stipulate to the facts sought to be proved.

(e) *Standards for issuance of subpoenas requiring the deposition of a witness pursuant to § 1081.209.* (1) The hearing officer will promptly issue any subpoena requiring the attendance and testimony of witnesses at a deposition only if the subpoena complies with § 1081.209 and if:

(i) The proposed deponent is a witness identified in the other party's scheduling conference disclosure under § 1081.203(b);

(ii) The proposed deponent was a witness of or participant in any event, transaction, occurrence, act, or omission that forms the basis for any claim asserted by the Office of Enforcement, any defense, or anything else required to be included in an answer pursuant to § 1081.201(b), by any respondent in the proceeding (this excludes a proposed deponent whose only knowledge of these matters arises from the Bureau's investigation, the Bureau's examination, or the proceeding);

(iii) The proposed deponent is designated as an ''expert witness'' under § 1081.210(b); provided, however, that the deposition of an expert who is required to submit a written report under § 1081.210(b) may only occur after such report is served;

(iv) The proposed deponent has custody of documents or electronic data relevant to the claims or defenses of any party (this excludes officers or personnel of the Bureau who have custody of documents or data that was produced by the Office of Enforcement to the respondent); or

(v) The proposed deponent is unavailable for the hearing as set forth in § 1081.209(c).

(2) Where it appears to the hearing officer that the subpoena sought may be unreasonable, oppressive, excessive in scope, or unduly burdensome, the

hearing officer may, as a condition precedent to the issuance of the subpoena, require the person seeking the subpoena to show further the general relevance and reasonable scope of the testimony or other evidence sought. If after consideration of all the circumstances, the hearing officer determines that the subpoena or any of its terms is unreasonable, oppressive, excessive in scope, or unduly burdensome, the hearing officer may refuse to issue the subpoena, or issue it only upon such conditions as fairness requires. In making the foregoing determination, the hearing officer may inquire of the other parties whether they will stipulate to the facts sought to be proved.

(f) *Service.* Upon issuance by the hearing officer, the party making the request will serve the subpoena on the person named in the subpoena and on each party in accordance with § 1081.113(c). Subpoenas may be served in any State, territory, possession of the United States, or the District of Columbia, on any person or company doing business in any State, territory, possession of the United States, or the District of Columbia, or as otherwise permitted by law.

(g) *Tender of fees required.* When a subpoena compelling the attendance of a person at a hearing or a deposition is issued at the request of anyone other than an officer or agency of the United States, service is valid only if the subpoena is accompanied by a tender to the subpoenaed person of the fees for one day's attendance and mileage specified by § 1081.116.

(h) *Place of compliance.* A subpoena for a deposition may command a person to attend a deposition only as follows:

(1) Within 100 miles of where the person resides, is employed, or regularly transacts business in person;

(2) Within the State where the person resides, is employed, or regularly transacts business in person, if the person is a party or a party's officer;

(3) At such other location that the parties and proposed deponent stipulate; or

(4) At such other location that the hearing officer determines is appropriate.

(i) *Production of documentary material.* Production of documentary material in response to a subpoena must be made under a sworn certificate, in such form as the subpoena designates, by the person to whom the subpoena is directed or, if not a natural person, by any person having knowledge of the facts and circumstances relating to such production, to the effect that all of the documentary material required by the subpoena and in the possession, custody, or control of the person to whom the subpoena is directed has been produced and made available to the custodian.

(j) *Motion to quash or modify*—(1) *Procedure.* Any person to whom a subpoena is directed, or who is an owner, creator, or the subject of the documents that are to be produced pursuant to a subpoena, or any party may, prior to the time specified therein for compliance, but in no event more than seven days after the date of service of such subpoena, move that the subpoena be quashed or modified. Such motion must be filed and served on all parties pursuant to subpart A of this part. Notwithstanding § 1081.205, the party on whose behalf the subpoena was issued or enforcement counsel may, within seven days of service of the motion, file a response to the motion. Reply briefs are not permitted unless requested by the hearing officer. Filing a motion to modify a subpoena does not stay the movant's obligation to comply with those portions of the subpoena that the person has not sought to modify.

(2) *Standards governing motion to quash or modify.* If compliance with the subpoena would be unreasonable, oppressive, or unduly burdensome, the hearing officer must quash or modify the subpoena, or may order return of the subpoena only upon specified conditions. These conditions may include but are not limited to a requirement that the party on whose behalf the subpoena was issued make reasonable compensation to the person to whom the subpoena was addressed for the cost of copying or transporting evidence to the place for return of the subpoena.

(k) *Enforcing subpoenas.* If a subpoenaed person fails to comply with any subpoena issued pursuant to this part or any order of the hearing officer which directs compliance with all or any portion of a subpoena, the Bureau's General Counsel may, on its own motion or at the request of the party on whose behalf the subpoena was issued, apply to an appropriate United States district court, in the name of the Bureau but on relation of such party, for an order requiring compliance with so much of the subpoena as the hearing officer has not quashed or modified, unless, in the judgment of the General Counsel, the enforcement of such subpoena would be inconsistent with law and the policies of the Consumer Financial Protection Act of 2010. Failure to request that the Bureau's General Counsel seek enforcement of a subpoena constitutes a waiver of any claim of prejudice predicated upon the unavailability of the testimony or evidence sought.

(l) *Relationship to scheduling of hearing.* The parties must disclose at the scheduling conference required under § 1081.203(e) whether they intend to request the issuance of subpoenas under § 1081.209. A respondent's request for issuance of a subpoena constitutes a request that the hearing not be held until after a reasonable period, determined by the hearing officer, for the completion of discovery. The hearing officer will decide whether to grant such a request. If the request is granted, the hearing officer will set a deadline for the completion of discovery and schedule the specific date of the hearing, in consultation with the parties. This paragraph (l) does not apply to a subpoena for the attendance and testimony of a witness at the hearing or a subpoena to depose a witness unavailable for the hearing.

§ 1081.209 Depositions.

(a) *Depositions by oral examination or by written questions.* Depositions by oral examination or by written questions may be taken as set forth in this section and must be taken pursuant to subpoena issued under § 1081.208. Any deposition permitted under this section may be taken and submitted on written questions upon motion of any party, for good cause shown, or as stipulated by the parties. No other depositions will be permitted except as provided in paragraph (c) of this section.

(1) If the proceeding involves a single respondent, the respondent may depose no more than three persons, and the Office of Enforcement may depose no more than three persons.

(2) If the proceeding involves multiple respondents, the respondents collectively may depose no more than five persons, and the Office of Enforcement may depose no more than five persons. The depositions taken under this paragraph (a)(2) cannot exceed a total of five depositions for the Office of Enforcement, and five depositions for all respondents collectively.

(3) Any side may file a motion with the hearing officer seeking leave to take up to two additional depositions beyond those permitted pursuant to paragraphs (a)(1) and (2) of this section.

(i) *Procedure.* (A) A motion for additional depositions must be filed no later than 28 days prior to the hearing date. If the moving side proposes to take the additional deposition(s) by written questions, the motion must so state and include the proposed questions. Any party opposing the motion may submit an opposition within seven days after

service of the motion. No reply will be permitted. The motion and any oppositions each must not exceed seven pages in length.

(B) Upon consideration of the motion and any opposing papers, the hearing officer will issue an order either granting or denying the motion. The hearing officer will consider the motion on an expedited basis.

(ii) *Grounds and standards for motion.* A motion under paragraph (a)(3) of this section will not be granted unless the additional depositions satisfy § 1081.208(d) and the moving side demonstrates a compelling need for the additional depositions by:

(A) Identifying all witnesses the moving side plans to depose under this section;

(B) Describing the role of all witnesses;

(C) Describing the matters concerning which all witnesses are expected to be questioned, and why the deposition of all witnesses is necessary for the moving side's arguments, claims, or defenses; and

(D) Showing that the additional deposition(s) requested will not be unreasonably cumulative or duplicative.

(b) *Additional procedure for depositions by written questions.* (1) Any motion or stipulation seeking a deposition of a witness by written questions must include the written questions the party seeking the deposition will ask the witness. Within seven days after service of the motion and written questions, any party may file objections to such written questions and any party may file cross-questions. When a deposition is taken by written questions, no persons other than the witness, counsel to the witness, the deposition officer, and, if the deposition officer does not act as reporter, a reporter, may be present at the examination of the witness. No party may be present or represented unless otherwise permitted by order. The deposition officer will propound the questions and cross-questions to the witness in the order submitted.

(2) The order for deposition, filing of the deposition, form of the deposition, and use of the deposition in the record will be governed by paragraphs (d) through (l) of this section, except that no cross-examination will be made.

(c) *Depositions when witness is unavailable.* In addition to depositions permitted under paragraph (a) of this section, the hearing officer may grant a party's request for issuance of a subpoena if the requesting party shows that the prospective witness will likely give testimony material to the proceeding; that it is likely the prospective witness, who is then within the United States, will be unable to attend or testify at the hearing because of age, sickness, infirmity, imprisonment, other disability, or absence from the United States, unless it appears that the absence of the witness was procured by the party requesting the deposition; and that the taking of a deposition will serve the interests of justice.

(d) *Service and contents of notice.* Upon issuance of a subpoena for a deposition, the party taking the deposition must serve a notice on each party pursuant to § 1081.113. A notice of deposition must state that the deposition will be taken before a deposition officer authorized to administer oaths by the laws of the United States or of the place where the deposition is to be held. A notice of deposition also must state:

(1) The name and address of the witness whose deposition is to be taken;

(2) The time and place of the deposition; and

(3) The manner of recording and preserving the deposition.

(e) *Method of recording*—(1) *Method stated in the notice.* The party who notices the deposition must state in the notice the method for recording the testimony. Unless the hearing officer orders otherwise, testimony may be recorded by audio, audiovisual, or stenographic means. The noticing party bears the recording costs. Any party may arrange to transcribe a deposition, at that party's expense. Each party will bear its own costs for obtaining copies of any transcripts or audio or audiovisual recordings.

(2) *Additional method.* With prior notice to the deponent and other parties, any party may designate another method for recording the testimony in addition to that specified in the original notice. That party bears the expense of the additional record or transcript unless the hearing officer orders otherwise.

(f) *By remote means.* The parties and the deponent may stipulate—or the hearing officer may on motion order—that a deposition be taken by telephone or other electronic means. For the purpose of this section, the deposition takes place where the deponent answers the questions.

(g) *Deposition officer's duties*—(1) *Before the deposition.* The deposition officer must begin the deposition with an on-the-record statement that includes:

(i) The deposition officer's name and business address;

(ii) The date, time, and place of the deposition;

(iii) The deponent's name;

(iv) The deposition officer's administration of the oath or affirmation to the deponent; and

(v) The identity of all persons present.

(2) *Conducting the deposition; avoiding distortion.* If the deposition is recorded non-stenographically, the deposition officer must repeat the items in paragraphs (g)(1)(i) through (iii) of this section at the beginning of each unit of the recording medium. The deponent's and attorneys' appearance or demeanor must not be distorted through recording techniques.

(3) *After the deposition.* At the end of a deposition, the deposition officer must state on the record that the deposition is complete and must set out any stipulations made by the attorneys about custody of the transcript or recording and of the exhibits, or about any other pertinent matters.

(h) *Order and record of the examination*—(1) *Order of examination.* The examination and cross-examination of a deponent will proceed as they would at the hearing. After putting the deponent under oath or affirmation, the deposition officer must record the testimony by the method designated under paragraph (e) of this section. The testimony must be recorded by the deposition officer personally or by a person acting in the presence and under the direction of the deposition officer. The witness being deposed may have counsel present during the deposition.

(2) *Form of objections stated during the deposition.* An objection at the time of the examination—whether to evidence, to a party's conduct, to the deposition officer's qualifications, to the manner of taking the deposition, or to any other aspect of the deposition—must be noted on the record, but the examination may still proceed and the testimony may be taken subject to any objection. An objection must be stated concisely in a nonargumentative and nonsuggestive manner. A person may instruct a deponent not to answer only when necessary to preserve a privilege, to enforce a limitation ordered by the hearing officer, or to present a motion to the hearing officer for a limitation on the questioning in the deposition.

(i) *Waiver of objections*—(1) *To the notice.* An objection to an error or irregularity in a deposition notice is waived unless promptly served in writing on the party giving the notice.

(2) *To the deposition officer's qualification.* An objection based on disqualification of the deposition officer before whom a deposition is to be taken is waived if not made:

(i) Before the deposition begins; or

(ii) Promptly after the basis for disqualification becomes known or, with reasonable diligence, could have been known.

(3) *To the taking of the deposition*—(i) *Objection to competence, relevance, or materiality.* An objection to a deponent's competence—or to the competence, relevance, or materiality of testimony—is not waived by a failure to make the objection before or during the deposition, unless the ground for it might have been corrected at that time.

(ii) *Objection to an error or irregularity.* An objection to an error or irregularity at an oral examination is waived if:

(A) It relates to the manner of taking the deposition, the form of a question or answer, the oath or affirmation, a party's conduct, or other matters that might have been corrected at that time; and

(B) It is not timely made during the deposition.

(4) *To completing and returning the deposition.* An objection to how the deposition officer transcribed the testimony—or prepared, signed, certified, sealed, endorsed, sent, or otherwise dealt with the deposition—is waived unless a motion to suppress is made promptly after the error or irregularity becomes known or, with reasonable diligence, could have been known.

(j) *Duration; cross-examination; motion to terminate or limit*—(1) *Duration.* Unless otherwise stipulated or ordered by the hearing officer, a deposition is limited to one day of seven hours, including cross-examination as provided in this paragraph (j)(1). In a deposition conducted by or for a respondent, the Office of Enforcement will be allowed a reasonable amount of time for cross-examination of the deponent. In a deposition conducted by the Office, the respondents collectively will be allowed a reasonable amount of time for cross-examination of the deponent. The hearing officer may allow additional time if needed to fairly examine the deponent or if the deponent, another person, or any other circumstance impedes or delays the examination.

(2) *Motion to terminate or limit*—(i) *Grounds.* At any time during a deposition, the deponent or a party may move to terminate or limit it on the ground that it is being conducted in bad faith or in a manner that unreasonably annoys, embarrasses, or oppresses the deponent or party. If the objecting deponent or party so demands, the deposition must be suspended for the time necessary to present the motion to the hearing officer.

(ii) *Order.* Upon a motion under paragraph (j)(2)(i) of this section, the hearing officer may order that the deposition be terminated or may limit its scope. If terminated, the deposition may be resumed only by order of the hearing officer.

(k) *Review by the witness; changes*—(1) *Review; statement of changes.* On request by the deponent or a party before the deposition is completed, and unless otherwise ordered by the hearing officer, the deponent must be allowed 14 days after being notified by the deposition officer that the transcript or recording is available, unless a longer time is agreed to by the parties or permitted by the hearing officer, in which:

(i) To review the transcript or recording; and

(ii) If there are changes in form or substance, to sign a statement listing the changes and the reasons for making them.

(2) *Changes indicated in the deposition officer's certificate.* The deposition officer must note in the certificate prescribed by paragraph (l)(1) of this section whether a review was requested and, if so, must attach any changes the deponent makes during the 14-day period.

(l) *Certification and delivery; exhibits; copies of the transcript or recording*—(1) *Certification and delivery.* The deposition officer must certify in writing that the witness was duly sworn and that the deposition accurately records the witness's testimony. The certificate must accompany the record of the deposition. Unless the hearing officer orders otherwise, the deposition officer must seal the deposition in an envelope or package bearing the title of the action and marked ''Deposition of [witness's name]'' and must promptly send it to the attorney or party who arranged for the transcript or recording. The attorney or party must store it under conditions that will protect it against loss, destruction, tampering, or deterioration.

(2) *Documents and tangible things*—(i) *Originals and copies.* Documents and tangible things produced for inspection during a deposition must, on a party's request, be marked for identification and attached to the deposition. Any party may inspect and copy them. But if the person who produced them wants to keep the originals, the person may:

(A) Offer copies to be marked, attached to the deposition, and then used as originals—after giving all parties a fair opportunity to verify the copies by comparing them with the originals; or

(B) Give all parties a fair opportunity to inspect and copy the originals after they are marked—in which event the originals may be used as if attached to the deposition.

(ii) *Order regarding the originals.* Any party may move for an order that the originals be attached to the deposition pending final disposition of the case.

(3) *Copies of the transcript or recording.* Unless otherwise stipulated or ordered by the hearing officer, the deposition officer must retain the stenographic notes of a deposition taken stenographically or a copy of the recording of a deposition taken by another method. When paid reasonable charges, the deposition officer must furnish a copy of the transcript or recording to any party or the deponent, as directed by the party or person paying such charges.

(m) *Presentation of objections or disputes.* Any party or deponent seeking relief with respect to disputes over the conduct of a deposition may file a motion with the hearing officer to obtain relief as permitted by this part.

§ 1081.210 Expert discovery.

(a) At a date set by the hearing officer at the scheduling conference, each party must serve the other with a report prepared by each of its expert witnesses. Each party must serve the other parties with a list of any rebuttal expert witnesses and a rebuttal report prepared by each such witness not later than 28 days after the deadline for service of expert reports, unless another date is set by the hearing officer. A rebuttal report must be limited to rebuttal of matters set forth in the expert report for which it is offered in rebuttal. If material outside the scope of fair rebuttal is presented, a party may file a motion not later than seven days after the deadline for service of rebuttal reports, seeking appropriate relief with the hearing officer, including striking all or part of the report, leave to submit a surrebuttal report by the party's own experts, or leave to call a surrebuttal witness and to submit a surrebuttal report by that witness.

(b) No party may call an expert witness at the hearing unless the expert witness has been listed and has provided reports as required by this section, unless otherwise directed by the hearing officer at a scheduling conference. Each side will be limited to calling at the hearing five expert witnesses, including any rebuttal or surrebuttal expert witnesses. A party may file a motion seeking leave to call additional expert witnesses due to extraordinary circumstances.

(c) Each report must be signed by the expert and contain a complete statement of all opinions to be expressed and the basis and reasons therefore; the data,

materials, or other information considered by the witness in forming the opinions; any exhibits to be used as a summary of or support for the opinions; the qualifications of the witness, including a list of all publications authored or co-authored by the witness within the preceding ten years; the compensation to be paid for the study and testimony; and a listing of any other cases in which the witness has testified or sought to testify as an expert at trial or hearing, or by deposition within the preceding four years. A rebuttal or surrebuttal report need not include any information already included in the initial report of the witness.

(d) A party may depose any person who has been identified as an expert whose opinions may be presented at trial upon subpoena issued under § 1081.208. Unless otherwise ordered by the hearing officer, a deposition of any expert witness will be conducted after the disclosure of a report prepared by the witness in accordance with paragraph (a) of this section, and at least seven days prior to the deadline for submission of rebuttal expert reports. A deposition of an expert witness must be completed no later than 14 days before the hearing unless otherwise ordered by the hearing officer. No expert deposition will exceed seven hours on the record, absent agreement of the parties or an order of the hearing officer for good cause shown. Expert depositions will be conducted pursuant to the procedures set forth in § 1081.209(d) through (l).

(e) A party may not discover facts known or opinions held by an expert who has been retained or specifically employed by another party in anticipation of litigation or preparation for the hearing and who is not listed as a witness for the hearing. A party may not discover drafts of any report required by this section, regardless of the form in which the draft is recorded, or any communications between another party's attorney and any of that other party's experts, regardless of the form of the communications, except to the extent that the communications:

(1) Relate to compensation for the testifying expert's study or testimony;

(2) Identify facts or data that the other party's attorney provided and that the testifying expert considered in forming the opinions to be expressed; or

(3) Identify assumptions that the other party's attorney provided and that the testifying expert relied on in forming the opinions to be expressed.

(f) The hearing officer has the discretion to dispense with the requirement of expert discovery in appropriate cases.

§ 1081.211 Interlocutory review.

(a) *Availability.* The Director may, at any time, direct that any matter be submitted to the Director for review. Subject to paragraph (c) of this section, the hearing officer may, upon the hearing officer's motion or upon the motion of any party, certify any matter for interlocutory review by the Director. This section is the exclusive remedy for review of a hearing officer's ruling or order prior to the Director's consideration of the entire proceeding.

(b) *Procedure.* Any party's motion for certification of a ruling or order for interlocutory review must be filed with the hearing officer within seven days of service of the ruling or order, must specify the ruling or order or parts thereof for which interlocutory review is sought, must attach any other portions of the record on which the moving party relies, and must otherwise comply with § 1081.205. Notwithstanding § 1081.205, any response to such a motion must be filed within seven days of service of the motion. The hearing officer must issue a ruling on the motion within seven days of the deadline for filing a response.

(c) *Certification process.* Unless the Director directs otherwise, a ruling or order may not be submitted to the Director for interlocutory review unless the hearing officer, upon the hearing officer's motion or upon the motion of a party, certifies the ruling or order in writing. The hearing officer will not certify a ruling or order unless:

(1) The ruling or order would compel testimony of Bureau officers or employees, or those from another governmental agency, or the production of documentary evidence in the custody of the Bureau or another governmental agency;

(2) The ruling or order involves a motion for disqualification of the hearing officer pursuant to § 1081.105(c)(2);

(3) The ruling or order suspended or barred an individual from appearing before the Bureau pursuant to § 1081.107(c); or

(4) Upon motion by a party, the hearing officer is of the opinion that:

(i) The ruling or order involves a controlling question of law as to which there is substantial ground for difference of opinion; and

(ii) An immediate review of the ruling or order is likely to materially advance the completion of the proceeding or subsequent review will be an inadequate remedy.

(d) *Interlocutory review.* A party whose motion for certification has been denied by the hearing officer may petition the Director for interlocutory review.

(e) *Director review.* The Director will determine whether or not to review a ruling or order certified under this section or the subject of a petition for interlocutory review. Interlocutory review is generally disfavored. The Director may decline to review a ruling or order certified by a hearing officer pursuant to paragraph (c) of this section or the petition of a party who has been denied certification if the Director determines that interlocutory review is not warranted or appropriate under the circumstances, in which case the Director may summarily deny the petition. If the Director determines to grant the review, the Director will review the matter and issue a ruling and order in an expeditious fashion, consistent with the Bureau's other responsibilities.

(f) *Proceedings not stayed.* The filing of a motion requesting that the hearing officer certify any of the hearing officer's prior rulings or orders for interlocutory review or a petition for interlocutory review filed with the Director, and the grant of any such review, will not stay proceedings before the hearing officer unless the hearing officer, or the Director, so orders. The Director will not consider a motion for a stay unless the motion was first been made to the hearing officer.

§ 1081.212 Dispositive motions.

(a) *Dispositive motions.* This section governs the filing of motions to dismiss and motions for summary disposition. The filing of any such motion does not obviate a party's obligation to file an answer or take any other action required by this part or by an order of the hearing officer, unless expressly so provided by the hearing officer.

(b) *Motions to dismiss.* A respondent may file a motion to dismiss asserting that, even assuming the truth of the facts alleged in the notice of charges, it is entitled to dismissal as a matter of law.

(c) *Motion for summary disposition.* A party may make a motion for summary disposition asserting that the undisputed pleaded facts, admissions, affidavits, stipulations, documentary evidence, matters as to which official notice may be taken, and any other evidentiary materials properly submitted in connection with a motion for summary disposition show that:

(1) There is no genuine issue as to any material fact; and

(2) The moving party is entitled to a decision in the moving party's favor as a matter of law.

(d) *Filing of motions for summary disposition and responses.* (1) After a

respondent's answer has been filed and documents have been made available to the respondent for inspection and copying pursuant to § 1081.206, any party may move for summary disposition in its favor of all or any part of the proceeding.

(2) A motion for summary disposition must be accompanied by a statement of the material facts as to which the moving party contends there is no genuine issue. Such motion must be supported by documentary evidence, which may take the form of admissions in pleadings, stipulations, depositions, investigatory depositions, transcripts, affidavits, and any other evidentiary materials that the moving party contends support the moving party's position. The motion must also be accompanied by a brief containing the points and authorities in support of the contention of the moving party. Any party opposing a motion for summary disposition must file a statement setting forth those material facts as to which the opposing party contends a genuine dispute exists. Such opposition must be supported by evidence of the same type as may be submitted in support of a motion for summary disposition and a brief containing the points and authorities in support of the contention that summary disposition would be inappropriate.

(3) Any affidavit or declaration submitted in support of or in opposition to a motion for summary disposition must set forth such facts as would be admissible in evidence, must show affirmatively that the affiant is competent to testify to the matters stated therein, and must be signed under oath and penalty of perjury.

(e) *Page limitations for dispositive motions.* A motion to dismiss or for summary disposition, together with any brief in support of the motion (exclusive of any declarations, affidavits, or attachments) may not exceed 35 pages in length. Motions for extensions of this length limitation are disfavored.

(f) *Opposition and reply response time and page limitation.* Any party, within 21 days after service of a dispositive motion, or within such period as allowed by the hearing officer, may file a response to such motion. The length limitations set forth in paragraph (e) of this section also apply to such responses. Any reply brief filed in response to an opposition to a dispositive motion must be filed within seven days after service of the opposition. Reply briefs may not exceed ten pages.

(g) *Relationship to scheduling of hearing.* A respondent's filing of a dispositive motion constitutes a request that the hearing not be held until after the motion is resolved. The hearing officer will decide whether to grant such a request. If the request is granted, the hearing officer will schedule the specific date of the hearing, in consultation with the parties.

§ 1081.213 Rulings on dispositive motions.

(a) *Ruling by Director or hearing officer.* The Director will rule on a dispositive motion, refer the motion to the hearing officer, or rule on the motion in part and refer it in part.

(b) *Timing of ruling.* If the Director rules on the motion, the Director must do so within 42 days following the expiration of the time for filing all responses and replies, unless there is good cause to extend the deadline. If the Director refers the motion to the hearing officer, the Director may set a deadline for the hearing officer to rule.

(c) *Oral argument.* At the request of any party or on the Director or hearing officer's own motion, the Director or hearing officer (as applicable) may hear oral argument on a dispositive motion.

(d) *Types of rulings*—(1) *Granting motion as to all claims and relief.* If the Director or hearing officer (as applicable) determines that dismissal or summary disposition is warranted as to all claims and relief, then (as applicable) the Director will issue a final decision and order or the hearing officer will issue preliminary findings and conclusions.

(2) *Granting motion as to some claims or relief.* If the Director or hearing officer (as applicable) determines that dismissal or summary disposition is warranted as to some issues, but not all claims and relief, the Director or hearing officer will issue an order that directs further proceedings. Where the dispositive motion is a motion for summary disposition, the order will specify the facts that appear without substantial controversy. The facts so specified are be deemed established.

(3) *Denial of motion.* If the Director or hearing officer (as applicable) determines that dismissal or summary disposition is not warranted, the Director or hearing officer may make a ruling denying the motion. If it appears that a party, for good cause shown, cannot present by affidavit, prior to hearing, facts essential to justify opposition to a motion for summary disposition, the Director or hearing officer must deny or defer the motion, or do so in relevant part.

§ 1081.214 Prehearing conferences.

(a) *Prehearing conferences.* The hearing officer may, in addition to the scheduling conference, upon the hearing officer's motion or at the request of any party, direct counsel for the parties to meet with the hearing officer (in person or by electronic means) at a prehearing conference for further discussion of the issues outlined in § 1081.203, or for discussion of any additional matters that in the view of the hearing officer will aid in an orderly disposition of the proceeding, including but not limited to:

(1) Identification of potential witnesses and limitation on the number of witnesses;

(2) The exchange of any prehearing materials including witness lists, statements of issues, exhibits, and any other materials;

(3) Stipulations, admissions of fact, and the contents, authenticity, and admissibility into evidence of documents;

(4) Matters of which official notice may be taken; and

(5) Whether the parties intend to introduce prior sworn statements of witnesses as set forth in § 1081.303(h).

(b) *Transcript.* The hearing officer has discretion to require that a prehearing conference be recorded by a court reporter. A transcript of the conference and any materials filed, including orders, becomes part of the record of the proceeding. A party may obtain a copy of the transcript at that party's expense.

(c) *Public access.* Any prehearing conferences will be public unless the hearing officer determines, based on the standard set forth in § 1081.119(c), that the conference (or any part thereof) should be closed to the public.

§ 1081.215 Prehearing submissions.

(a) *Generally.* Within the time set by the hearing officer, but in no case later than 14 days before the start of the hearing, each party must serve on every other party:

(1) A prehearing statement, which must include an outline or narrative summary of the party's case or defense, and the legal theories upon which the party will rely;

(2) A final list of witnesses to be called to testify at the hearing, including the name and address of each witness and a short summary of the expected testimony of each witness;

(3) Any prior sworn statements that a party intends to admit into evidence pursuant to § 1081.303(h);

(4) A list of the exhibits to be introduced at the hearing along with a copy of each exhibit; and

(5) Any stipulations of fact or liability.

(b) *Expert witnesses.* Each party who intends to call an expert witness must also serve, in addition to the information required by paragraph (a)(2)

of this section, a statement of the expert's qualifications, a listing of other proceedings in which the expert has given or sought to give expert testimony at trial or hearing or by deposition within the preceding four years, and a list of publications authored or co-authored by the expert within the preceding ten years, to the extent such information has not already been provided pursuant to § 1081.210.

(c) *Effect of failure to comply.* No witness may testify and no exhibits may be introduced at the hearing if such witness or exhibit is not listed in the prehearing submissions pursuant to paragraph (a) of this section, except for good cause shown.

§ 1081.216 Amicus participation.

(a) *Availability.* An amicus brief may be filed only if:

(1) A motion for leave to file the brief has been granted;

(2) The brief is accompanied by written consent of all parties;

(3) The brief is filed at the request of the Director or the hearing officer, as appropriate; or

(4) The brief is presented by the United States or an officer or agency thereof, or by a State or a political subdivision thereof.

(b) *Procedure.* An amicus brief may be filed conditionally with the motion for leave. The motion for leave must identify the interest of the movant and state the reasons why a brief of an amicus curiae is desirable. Except as all parties otherwise consent, any amicus curiae must file its brief within the time allowed the party whose position the amicus will support, unless the Director or hearing officer, as appropriate, for good cause shown, grants leave for a later filing. If a later filing is allowed, the order granting leave to file must specify when an opposing party may reply to the brief.

(c) *Motions.* A motion for leave to file an amicus brief is subject to § 1081.205.

(d) *Formal requirements as to amicus briefs.* Amicus briefs must be filed pursuant to § 1081.111, comply with the requirements of § 1081.112, and are be subject to the length limitation in § 1081.212(e).

(e) *Oral argument.* An amicus curiae may move to present oral argument at any hearing before the hearing officer, but such motions will be granted only for extraordinary reasons.

Subpart C—Hearings

§ 1081.300 Public hearings.

All hearings in adjudication proceedings will be public unless a confidentiality order is entered by the hearing officer pursuant to § 1081.119 or unless otherwise ordered by the Director on the grounds that holding an open hearing would be contrary to the public interest.

§ 1081.301 Failure to appear.

Failure of a respondent to appear in person or by a duly authorized counsel at the hearing constitutes a waiver of respondent's right to a hearing and may be deemed an admission of the facts as alleged and consent to the relief sought in the notice of charges. Without further proceedings or notice to the respondent, the hearing officer will file preliminary findings and conclusions containing findings of fact and addressing the relief sought in the notice of charges.

§ 1081.302 Conduct of hearings.

All hearings will be conducted in a fair, impartial, expeditious, and orderly manner. Enforcement counsel will present its case-in-chief first, unless otherwise ordered by the hearing officer, or unless otherwise expressly specified by law or regulation. Enforcement counsel will be the first party to present an opening statement and a closing statement, and may make a rebuttal statement after the respondent's closing statement. If there are multiple respondents, respondents may agree among themselves as to their order of presentation of their cases, but if they do not agree, the hearing officer will fix the order.

§ 1081.303 Evidence.

(a) *Burden of proof.* Enforcement counsel will have the burden of proof of the ultimate issue(s) of the Bureau's claims at the hearing.

(b) *Admissibility.* (1) Except as is otherwise set forth in this section, relevant, material, and reliable evidence that is not unduly repetitive is admissible to the fullest extent authorized by the Administrative Procedure Act and other applicable law. Irrelevant, immaterial, and unreliable evidence will be excluded.

(2) Evidence, even if relevant, may be excluded if its probative value is substantially outweighed by the danger of unfair prejudice or confusion of the issues; if the evidence would be misleading; or based on considerations of undue delay, waste of time, or needless presentation of cumulative evidence.

(3) Evidence that constitutes hearsay may be admitted if it is relevant, material, and bears satisfactory indicia of reliability so that its use is fair. Hearsay is a statement, other than one made by the declarant while testifying at the hearing, offered in evidence to prove the truth of the matter asserted. If otherwise meeting the standards for admissibility described in this section, transcripts of depositions, investigational hearings, prior testimony in Bureau or other proceedings, and any other form of hearsay will be admissible and may not be excluded solely on the ground that they are or contain hearsay.

(4) Evidence that would be admissible under the Federal Rules of Evidence is admissible in a proceeding conducted pursuant to this part. Evidence that would be inadmissible under the Federal Rules of Evidence may not be deemed or ruled to be inadmissible in a proceeding conducted pursuant to this part solely on that basis.

(c) *Official notice.* Official notice may be taken of any material fact that is not subject to reasonable dispute in that it is either generally known or capable of accurate and ready determination by resort to sources whose accuracy cannot reasonably be questioned. If official notice is requested or is taken of a material fact not appearing in the evidence in the record, the parties, upon timely request, will be afforded an opportunity to disprove such noticed fact.

(d) *Documents.* (1) A duplicate copy of a document is admissible to the same extent as the original, unless a genuine issue is raised as to whether the copy is in some material respect not a true and legible copy of the original.

(2) Subject to the requirements of paragraph (b) of this section, any document, including a report of examination, supervisory activity, inspection or visitation, prepared by the Bureau, a prudential regulator, as that term is defined in section 1002(24) of the Consumer Financial Protection Act of 2010 (12 U.S.C. 5481(24)), or by a State regulatory agency, is presumptively admissible either with or without a sponsoring witness.

(3) Witnesses may use existing or newly created charts, exhibits, calendars, calculations, outlines, or other graphic material to summarize, illustrate, or simplify the presentation of testimony. Such materials may, subject to the hearing officer's discretion, be used with or without being admitted into evidence.

(4) As respondents are in the best position to determine the nature of documents generated by such respondents and which come from their own files, the burden of proof is on the respondent to introduce evidence to rebut a presumption that such documents are authentic and kept in the regular course of business.

(e) *Objections.* (1) Objections to the admissibility of evidence must be timely

made and rulings on all objections must appear on the record.

(2) Whenever evidence is excluded from the record, the party offering such evidence may make an offer of proof, which will be included in the record. Rejected exhibits, adequately marked for identification, must be retained pursuant to § 1081.306(b) so as to be available for consideration by any reviewing authority.

(3) Failure to object to admission of evidence or to any ruling constitutes a waiver of the objection.

(f) *Stipulations.* (1) The parties may, at any stage of the proceeding, stipulate as to any relevant matters of fact or the authentication of any relevant documents. Such stipulations must be received in evidence at a hearing and are binding on the parties with respect to the matters therein stipulated.

(2) Unless the hearing officer directs otherwise, all stipulations of fact and law previously agreed upon by the parties, and all documents, the admissibility of which have been previously stipulated, will be admitted into evidence upon commencement of the hearing.

(g) *Presentation of evidence.* (1) A witness at a hearing for the purpose of taking evidence must testify under oath or affirmation.

(2) A party is entitled to present its case or defense by sworn oral testimony and documentary evidence, to submit rebuttal evidence, and to conduct such cross-examination as, in the discretion of the hearing officer, may be required for a full and true disclosure of the facts.

(3) An adverse party, or an officer, agent, or employee thereof, and any witness who appears to be hostile, unwilling, or evasive, may be interrogated by leading questions and may also be contradicted and impeached by the party calling him or her.

(4) The hearing officer will exercise reasonable control over the mode and order of interrogating witnesses and presenting evidence so as to:

(i) Make the interrogation and presentation effective for the ascertainment of the truth;

(ii) Avoid needless consumption of time; and

(iii) Protect witnesses from harassment or undue embarrassment.

(5) The hearing officer may permit a witness to appear at a hearing via electronic means for good cause shown.

(h) *Introducing prior sworn statements of witnesses into the record.* At a hearing, any party wishing to introduce a prior, sworn statement of a witness, not a party, otherwise admissible in the proceeding, may make a motion setting forth the reasons therefore. If only part of a statement is offered in evidence, the hearing officer may require that all relevant portions of the statement be introduced. If all of a statement is offered in evidence, the hearing officer may require that portions not relevant to the proceeding be excluded. A motion to introduce a prior sworn statement may be granted if:

(1) The witness is dead;

(2) The witness is out of the United States, unless it appears that the absence of the witness was procured by the party offering the prior sworn statement;

(3) The witness is unable to attend or testify because of age, sickness, infirmity, imprisonment, or other disability;

(4) The party offering the prior sworn statement has been unable to procure the attendance of the witness by subpoena; or

(5) In the discretion of the hearing officer, it would be desirable, in the interests of justice, to allow the prior sworn statement to be used. In making this determination, due regard will be given to the presumption that witnesses will testify orally in an open hearing. If the parties have stipulated to accept a prior sworn statement in lieu of live testimony, consideration should also be given to the convenience of the parties in avoiding unnecessary expense.

§ 1081.304 Record of the hearing.

(a) *Reporting and transcription.* Hearings will be stenographically reported and transcribed under the supervision of the hearing officer, and the original transcript will be a part of the record and the sole official transcript. The live oral testimony of each witness may be video recorded digitally, in which case the video recording and the written transcript of the testimony will be made part of the record. Copies of transcripts will be available from the reporter at prescribed rates.

(b) *Corrections.* Corrections of the official transcript may be made only when they involve errors affecting substance and then only in the manner provided in this paragraph (b). Corrections ordered by the hearing officer or agreed to in a written stipulation signed by all counsel and parties not represented by counsel, and approved by the hearing officer, will be included in the record, and such stipulations, except to the extent they are capricious or without substance, must be approved by the hearing officer. Corrections will not be ordered by the hearing officer except upon notice and opportunity for the hearing of objections. Such corrections must be made by the official reporter by furnishing substitute type pages, under the usual certificate of the reporter, for insertion in the official record. The original uncorrected pages will be retained in the files of the Bureau.

(c) *Closing of the hearing record.* Upon completion of the hearing, the hearing officer will issue an order closing the hearing record after giving the parties seven days to determine if the record is complete or needs to be supplemented. The hearing officer retains the discretion to permit or order correction of the record as provided in paragraph (b) of this section.

§ 1081.305 Post-hearing filings.

(a) *Proposed findings and conclusions and supporting briefs.* (1) Using the same method of service for each party, the hearing officer will serve notice upon each party that the certified transcript, together with all hearing exhibits and exhibits introduced but not admitted into evidence at the hearing, has been filed promptly after that filing. Any party may file with the hearing officer proposed findings of fact, proposed conclusions of law, and a proposed order within 28 days following service of this notice by the hearing officer or within such longer period as may be ordered by the hearing officer.

(2) Proposed findings and conclusions must be supported by citation to any relevant authorities and by page references to any relevant portions of the record. A post-hearing brief may be filed in support of proposed findings and conclusions, either as part of the same document or in a separate document.

(b) *Responsive briefs.* Responsive briefs may be filed within 14 days after the date on which the parties' proposed findings, conclusions, and order are due. Responsive briefs must be strictly limited to responding to matters, issues, or arguments raised in another party's papers. A party who has not filed proposed findings of fact and conclusions of law or a post-hearing brief may not file a responsive brief. Unless directed by the hearing officer, reply briefs are not permitted.

(c) *Order of filing.* The hearing officer may not order the filing by any party of any post-hearing brief or responsive brief in advance of the other party's filing of its post-hearing brief or responsive brief.

§ 1081.306 Record in proceedings before hearing officer; retention of documents; copies.

(a) *Contents of the record.* The record of the proceeding consists of:

(1) The notice of charges, the answer, and any amendments thereto;

(2) Each motion, submission, or other paper filed in the proceedings, and any amendments and exceptions to or regarding them;

(3) Each stipulation, transcript of testimony, and any document or other item admitted into evidence;

(4) Any transcript of a conference or hearing before the hearing officer;

(5) Any amicus briefs filed pursuant to § 1081.216;

(6) With respect to a request to disqualify a hearing officer or to allow the hearing officer's withdrawal under § 1081.105(c), each affidavit or transcript of testimony taken and the decision made in connection with the request;

(7) All motions, briefs, and other papers filed on interlocutory appeal;

(8) All proposed findings and conclusions;

(9) Each written order issued by the hearing officer or Director; and

(10) Any other document or item accepted into the record by the hearing officer.

(b) *Retention of documents not admitted.* Any document offered into evidence but excluded will not be considered part of the record. The Office of Administrative Adjudication will retain any such document until the later of the date upon which an order by the Director ending the proceeding becomes final and not appealable, or upon the conclusion of any judicial review of the Director's order.

(c) *Substitution of copies.* A true copy of a document may be substituted for any document in the record or any document retained pursuant to paragraph (b) of this section.

Subpart D—Decision and Appeals

§ 1081.400 Preliminary findings and conclusions of the hearing officer.

(a) *Time period for filing preliminary findings and conclusions.* Subject to paragraph (b) of this section, the hearing officer must file preliminary findings and conclusions no later than 90 days after the deadline for filing post-hearing responsive briefs pursuant to § 1081.305(b) and in no event later than 360 days after filing of the notice of charges.

(b) *Extension of deadlines.* In the event the hearing officer presiding over the proceeding determines that it will not be possible to issue preliminary findings and conclusions within the time periods specified in paragraph (a) of this section, the hearing officer will submit a written request to the Director for an extension of the time period for filing the preliminary findings and conclusions. This request must be filed no later than 28 days prior to the expiration of the time for issuance of preliminary findings and conclusions. The request will be served on all parties in the proceeding, who may file with the Director briefs in support of or in opposition to the request. Any such briefs must be filed within seven days of service of the hearing officer's request and may not exceed five pages. If the Director determines that additional time is necessary or appropriate in the public interest, the Director will issue an order extending the time period for filing preliminary findings and conclusions.

(c) *Content.* (1) Preliminary findings and conclusions must be based on a consideration of the whole record relevant to the issues decided, and be supported by reliable, probative, and substantial evidence. Preliminary findings and conclusions must include a statement of findings of fact (with specific page references to principal supporting items of evidence in the record) and conclusions of law, as well as the reasons or basis therefore, as to all the material issues of fact, law, or discretion presented on the record and the appropriate order, sanction, relief or denial thereof. Preliminary findings and conclusions must also state that a notice of appeal may be filed within 14 days after service of the preliminary findings and conclusions and include a statement that, unless a party timely files and perfects a notice of appeal of the preliminary findings and conclusions, the Director may adopt the preliminary findings and conclusions as the final decision and order of the Bureau without further opportunity for briefing or argument.

(2) Consistent with paragraph (a) of this section, when more than one claim for relief is presented in an adjudication proceeding, or when multiple parties are involved, the hearing officer may direct the entry of preliminary findings and conclusions as to one or more but fewer than all of the claims or parties only upon an express determination that there is no just reason for delay and upon an express direction for the entry of preliminary findings and conclusions.

(d) *By whom made.* Preliminary findings and conclusions must be made and filed by the hearing officer who presided over the hearings, except when that hearing officer has become unavailable to the Bureau.

(e) *Reopening of proceeding by hearing officer; termination of jurisdiction.* (1) At any time from the close of the hearing record pursuant to § 1081.304(c) until the filing of the hearing officer's preliminary findings and conclusions, a hearing officer may reopen the proceeding for the receipt of further evidence for good cause shown.

(2) Except for the correction of clerical errors or pursuant to an order of remand from the Director, the jurisdiction of the hearing officer is terminated upon the filing of the hearing officer's preliminary findings and conclusions with respect to those issues decided pursuant to paragraph (c) of this section.

(f) *Filing, service, and publication.* Upon filing by the hearing officer of preliminary findings and conclusions, the Office of Administrative Adjudication will promptly transmit the preliminary findings and conclusions to the Director and serve them upon the parties.

§ 1081.401 Transmission of documents to Director; record index; certification.

(a) *Filing of index.* At the same time the Office of Administrative Adjudication transmits preliminary findings and conclusions to the Director, the hearing officer will furnish to the Director a certified index of the entire record of the proceedings. The certified index must include, at a minimum, an entry for each paper, document or motion filed in the proceeding, the date of the filing, and the identity of the filer. The certified index must also include an exhibit index containing, at a minimum, an entry consisting of exhibit number and title or description for each exhibit introduced and admitted into evidence and each exhibit introduced but not admitted into evidence.

(b) *Retention of record items by the Office of Administrative Adjudication.* After the close of the hearing, the Office of Administrative Adjudication will retain originals of any motions, exhibits or any other documents filed with, or accepted into evidence by, the hearing officer, or any other portions of the record that have not already been filed with the Office of Administrative Adjudication.

§ 1081.402 Notice of appeal; review by the Director.

(a) *Notice of appeal*—(1) *Filing.* Any party may file exceptions to the preliminary findings and conclusions of the hearing officer by filing a notice of appeal with the Office of Administrative Adjudication within 14 days after service of the preliminary findings and conclusions. The notice must specify the party or parties against whom the appeal is taken and must designate the preliminary findings and conclusions or part thereof appealed from. If a timely notice of appeal is filed by a party, any

other party may thereafter file a notice of appeal within seven days after service of the first notice, or within 14 days after service of the preliminary findings and conclusions, whichever period expires last.

(2) *Perfecting a notice of appeal.* Any party filing a notice of appeal must perfect its appeal by filing its opening appeal brief within 28 days of service of the preliminary findings and conclusions. Any party may respond to the opening appeal brief by filing an answering brief within 28 days of service of the opening brief. Any party may file a reply to an answering brief within seven days of service of the answering brief. These briefs must conform to the requirements of § 1081.403.

(b) *Director review other than pursuant to an appeal.* In the event no party perfects an appeal of the hearing officer's preliminary findings and conclusions, the Director will, within 42 days after the date of service of the preliminary findings and conclusions, either issue a final decision and order adopting the preliminary findings and conclusions, or order further briefing regarding any portion of the preliminary findings and conclusions. The Director's order for further briefing must set forth the scope of review and the issues that will be considered and will make provision for the filing of briefs in accordance with the timelines set forth in paragraph (a)(2) of this section (except that that opening briefs will be due within 28 days of service of the order of review) if deemed appropriate by the Director.

(c) *Exhaustion of administrative remedies.* Pursuant to 5 U.S.C. 704, a perfected appeal to the Director of preliminary findings and conclusions pursuant to paragraph (a) of this section is a prerequisite to the seeking of judicial review of a final decision and order, or portion of the final decision and order, adopting the preliminary findings and conclusions.

§ 1081.403 Briefs filed with the Director.

(a) *Contents of briefs.* Briefs must be confined to the particular matters at issue. Each exception to the findings or conclusions being reviewed should be stated succinctly. Exceptions must be supported by citation to the relevant portions of the record, including references to the specific pages relied upon, and by concise argument including citation of such statutes, decisions, and other authorities as may be relevant. If the exception relates to the admission or exclusion of evidence, the substance of the evidence admitted or excluded must be set forth in the brief, in an appendix thereto, or by citation to the record. Reply briefs must be confined to matters in answering briefs of other parties.

(b) *Length limitation.* Except with leave of the Director, opening and answering briefs may not exceed 30 pages, and reply briefs may not exceed 15 pages, exclusive of pages containing the table of contents, table of authorities, and any addendum that consists solely of copies of applicable cases, pertinent legislative provisions or rules, and exhibits. Motions to file briefs in excess of these limitations are disfavored.

§ 1081.404 Oral argument before the Director.

(a) *Availability.* The Director will consider appeals, motions, and other matters properly before the Director on the basis of the papers filed by the parties without oral argument unless the Director determines that the presentation of facts and legal arguments in the briefs and record and decisional process would be significantly aided by oral argument, in which case the Director will issue an order setting the date on which argument will be held. A party seeking oral argument must so indicate on the first page of that party's opening or answering brief.

(b) *Public arguments; transcription.* All oral arguments will be public unless otherwise ordered by the Director. Oral arguments before the Director will be reported stenographically, unless otherwise ordered by the Director. Motions to correct the transcript of oral argument must be made according to the same procedure provided in § 1081.304(b).

§ 1081.405 Decision of the Director.

(a) Upon appeal from or upon further review of preliminary findings and conclusions, the Director will consider such parts of the record as are cited or as may be necessary to resolve the issues presented and, in addition, will, to the extent necessary or desirable, exercise all powers which could have exercised if the Director had made the preliminary findings and conclusions. In proceedings before the Director, the record will consist of all items part of the record in accordance with § 1081.306 as follows: Any notices of appeal or order directing review; all briefs, motions, submissions, and other papers filed on appeal or review; and the transcript of any oral argument held. Review by the Director of preliminary findings and conclusions may be limited to the issues specified in the notice(s) of appeal or the issues, if any, specified in the order directing further briefing. On notice to all parties, however, the Director may, at any time prior to issuance of the Director's decision, raise and determine any other matters that the Director deems material, with opportunity for oral or written argument thereon by the parties.

(b) Decisional employees may advise and assist the Director in the consideration and disposition of the case.

(c) In rendering the Director's decision, the Director will affirm, adopt, reverse, modify, set aside, or remand for further proceedings the preliminary findings and conclusions and will include in the decision a statement of the reasons or basis for the Director's actions and the findings of fact upon which the decision is predicated.

(d) At the expiration of the time permitted for the filing of reply briefs with the Director, the Office of Administrative Adjudication will notify the parties that the case has been submitted for final Bureau decision. The Director will issue and the Office of Administrative Adjudication will serve the Director's final decision and order within 90 days after such notice, unless within that time the Director orders that the adjudication proceeding or any aspect thereof be remanded to the hearing officer for further proceedings.

(e) The Office of Administrative Adjudication will serve copies of a final decision and order of the Director upon each party to the proceeding in accordance with § 1081.113(d)(2); upon other persons required by statute, if any; and, if directed by the Director or required by statute, upon any appropriate State or Federal supervisory authority. A final decision and order will also be published on the Bureau's website or as otherwise deemed appropriate by the Bureau.

§ 1081.406 Reconsideration.

Within 14 days after service of the Director's decision and order, any party may file with the Director a petition for reconsideration, briefly and specifically setting forth the relief desired and the grounds in support thereof. Any petition filed under this section must be confined to new questions raised by the decision or order and upon which the petitioner had no opportunity to argue, in writing or orally, before the Director. No response to a petition for reconsideration may be filed unless requested by the Director, who will request such response before granting any petition for reconsideration. The filing of a petition for reconsideration does not operate to stay the effective date of the decision or order or to toll

the running of any statutory period affecting such decision or order unless specifically so ordered by the Director.

§ 1081.407 Effective date; stays pending judicial review.

(a) Other than consent orders, which become effective at the time specified therein, an order to cease and desist or for other affirmative action under section 1053(b) of the Consumer Financial Protection Act of 2010 (12 U.S.C. 5563(b)) becomes effective at the expiration of 30 days after the date of service pursuant to § 1081.113(d)(2), unless the Director agrees to stay the effectiveness of the order pursuant to this section.

(b) Any party subject to a final decision and order, other than a consent order, may apply to the Director for a stay of all or part of that order pending judicial review.

(c) A motion for stay must state the reasons a stay is warranted and the facts relied upon, and must include supporting affidavits or other sworn statements, and a copy of the relevant portions of the record. The motion must address the likelihood of the movant's success on appeal, whether the movant will suffer irreparable harm if a stay is not granted, the degree of injury to other parties if a stay is granted, and why the stay is in the public interest.

(d) A motion for stay must be filed within 28 days of service of the order on the party. Any party opposing the motion may file a response within seven days after receipt of the motion. The movant may file a reply brief, limited to new matters raised by the response, within seven days after receipt of the response.

(e) The commencement of proceedings for judicial review of a final decision and order of the Director does not, unless specifically ordered by the Director or a reviewing court, operate as a stay of any order issued by the Director. The Director has discretion, on such terms as the Director finds just, to stay the effectiveness of all or any part of an order pending a final decision on a petition for judicial review of that order.

§ 1081.408 Issue exhaustion.

(a) *Scope.* This section applies to any argument to support a party's case or defense, including any argument that could be a basis for setting aside Bureau action under 5 U.S.C. 706 or any other source of law.

(b) *Duties to raise arguments.* A party must raise an argument before the hearing officer, or else it is not preserved for later consideration by the Director. A party must raise an argument before the Director, or else it is not preserved for later consideration by a court.

(c) *Manner of raising arguments.* An argument must be raised in a manner that complies with this part and that provides a fair opportunity to consider the argument.

(d) *Discretion to consider unpreserved arguments.* The Director has discretion to consider an unpreserved argument, including by considering it in the alternative. If the Director considers an unpreserved argument in the alternative, the argument remains unpreserved.

Subpart E—Temporary Cease-and-Desist Proceedings

§ 1081.500 Scope.

(a) This subpart prescribes the rules of practice and procedure applicable to the issuance of a temporary cease-and-desist order authorized by section 1053(c) of the Consumer Financial Protection Act of 2010 (12 U.S.C. 5563(c)).

(b) The issuance of a temporary cease-and-desist order does not stay or otherwise affect the proceedings instituted by the issuance of a notice of charges, which are governed by subparts A through D of this part.

§ 1081.501 Basis for issuance, form, and service.

(a) *In general.* The Director or the Director's designee may issue a temporary cease-and-desist order if the Director determines that one or more of the alleged violations specified in a notice of charges, or the continuation thereof, is likely to cause the respondent to be insolvent or otherwise prejudice the interests of consumers before the completion of the adjudication proceeding. A temporary cease-and-desist order may require the respondent to cease and desist from any violation or practice specified in the notice of charges and to take affirmative action to prevent or remedy such insolvency or other condition pending completion of the proceedings initiated by the issuance of a notice of charges.

(b) *Incomplete or inaccurate records.* When a notice of charges specifies, on the basis of particular facts and circumstances, that the books and records of a respondent are so incomplete or inaccurate that the Bureau is unable to determine the financial condition of the respondent or the details or purpose of any transaction or transactions that may have a material effect on the financial condition of the respondent, then the Director or the Director's designee may issue a temporary order requiring:

(1) The cessation of any activity or practice which gave rise, whether in whole or in part, to the incomplete or inaccurate state of the books or records; or

(2) Affirmative action to restore such books or records to a complete and accurate state, until the completion of the adjudication proceeding.

(c) *Content, scope, and form of order.* Every temporary cease-and-desist order accompanying a notice of charges must describe:

(1) The basis for its issuance, including the alleged violations and the harm that is likely to result without the issuance of an order; and

(2) The act or acts the respondent is to take or refrain from taking.

(d) *Effective and enforceable upon service.* A temporary cease-and-desist order is effective and enforceable upon service.

(e) *Service.* Service of a temporary cease-and-desist order will be made pursuant to § 1081.113(d).

§ 1081.502 Judicial review, duration.

(a) *Availability of judicial review.* Judicial review of a temporary cease-and-desist order is available solely as provided in section 1053(c)(2) of the Consumer Financial Protection Act of 2010 (12 U.S.C. 5563(c)(2)). Any respondent seeking judicial review of a temporary cease-and-desist order issued under this subpart must, not later than ten days after service of the temporary cease-and-desist order, apply to the United States district court for the judicial district in which the residence or principal office or place of business of the respondent is located, or the United States District Court for the District of Columbia, for an injunction setting aside, limiting, or suspending the enforcement, operation, or effectiveness of such order.

(b) *Duration.* Unless set aside, limited, or suspended by the Director or the Director's designee, or by a court in proceedings authorized under section 1053(c)(2) of the Consumer Financial Protection Act of 2010 (12 U.S.C. 5563(c)(2)), a temporary cease-and-desist order will remain effective and enforceable until:

(1) The effective date of a final order issued upon the conclusion of the adjudication proceeding.

(2) With respect to a temporary cease-and-desist order issued pursuant to § 1081.501(b) only, the Bureau determines by examination or otherwise that the books and records are accurate and reflect the financial condition of the respondent, and the Director or the Director's designee issues an order terminating, limiting, or suspending the temporary cease-and-desist order.

Rohit Chopra,

Director, Bureau of Consumer Financial Protection.

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