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## OFFICE OF PERSONNEL MANAGEMENT

### 5 CFR Part 250

**RIN 3206–AJ92**

### Human Resources Management in Agencies

**AGENCY:** Office of Personnel Management.

**ACTION:** Final rule; correction.

**SUMMARY:** The Office of Personnel Management (OPM) is correcting a final rule to implement certain provisions of the Chief Human Capital Officers Act of 2002, which set forth new OPM and agency responsibilities and requirements to enhance and improve the strategic management of the Federal Government's civilian workforce, as well as the planning and evaluation of agency efforts in that regard. This correction makes sure that subpart C of 5 CFR part 250 dealing with employee surveys is not affected by the changes to subpart A and subpart B.

**DATES:** *Effective Date:* The regulations are effective on May 28, 2008.

**FOR FURTHER INFORMATION CONTACT:** Charles D. Grimes by phone at 202–418–3163, by FAX at 202–606–2838, or by e-mail at *pay-performance-policy@opm.gov.* You may contact Mr. Grimes by TTY on 202–418–3134.

**SUPPLEMENTARY INFORMATION:** On April, 28, 2008, the Office of Personnel Management (OPM) issued final regulations to change 5 CFR part 250, to read ''Human Resources Management in Agencies'' to reflect current usage, to make a plain language revision in subpart A, and to add regulations on strategic human resources management as new subpart B.

In 73 FR 23012, appearing on page 23013 in the **Federal Register** of Monday, April 28, 2008, the following correction is made:

### PART 250—[CORRECTED]

■ 1. On page 23013, in the third column, in Part 250 Human Resources Management in Agencies, in amendment 1, the instruction ''Revise part 250 to read as follows:'' is corrected to read ''Revise subpart A and add subpart B to part 250 to read as follows:''

Office of Personnel Management.

**Charles D. Grimes III,**

*Deputy Associate Director, Center for Performance and Pay Systems.*

[FR Doc. E8–9973 Filed 5–5–08; 8:45 am]

**BILLING CODE 6325–39–P**

## DEPARTMENT OF AGRICULTURE

### Animal and Plant Health Inspection Service

### 7 CFR Parts 305 and 318

**[Docket No. APHIS–2007–0050]**

**RIN 0579–AC62**

### Interstate Movement of Fruit From Hawaii

**AGENCY:** Animal and Plant Health Inspection Service, USDA.

**ACTION:** Final rule.

**SUMMARY:** We are amending the Hawaiian fruits and vegetables regulations to allow mangosteen, dragon fruit, melon, pods of cowpea and its relatives, breadfruit, jackfruit, and fresh moringa pods to be moved interstate from Hawaii under certain conditions. This action will allow the movement of these tropical fruits from Hawaii to the continental United States while continuing to provide protection against the spread of plant pests from Hawaii to the continental United States.

**DATES:** *Effective Date:* May 6, 2008.

**FOR FURTHER INFORMATION CONTACT:** Mr. David B. Lamb, Import Specialist, Commodity Import Analysis and Operations, PPQ, VS, APHIS, 4700 River Road, Unit 133, Riverdale, MD 20737–1236; (301) 734–8758.

**SUPPLEMENTARY INFORMATION:**

#### Background

The Hawaiian fruits and vegetables regulations, contained in 7 CFR 318.13 through 318.13–17 (referred to below as the regulations), govern, among other things, the interstate movement of fruits and vegetables from Hawaii to the continental United States. The regulations are necessary to prevent the spread of plant diseases and pests that occur in Hawaii but not in the continental United States. The regulations in § 318.13–4f identify specific fruits and vegetables that are allowed to be moved interstate from Hawaii if, among other things, they are treated with irradiation in accordance with our phytosanitary treatments regulations in 7 CFR part 305.

On November 15, 2007, we published in the **Federal Register** (72 FR 64163–64170, Docket No. APHIS–2007–0050) a proposal [1] to amend the regulations to allow mangosteen, dragon fruit, melon, pods of cowpea and its relatives, breadfruit, jackfruit, and fresh moringa pods to be moved interstate from Hawaii under certain conditions. We also proposed to amend § 305.31(a) to add irradiation doses for three plant pests: Coconut scale (*Aspidiotus destructor*), white peach scale (*Pseudaulacaspis pentagona*), and *Copitarsia decolora* (Lepidoptera: Noctuidae).

We solicited comments concerning our proposal for 60 days ending January 14, 2008. We received nine comments by that date, from private citizens, members of Congress, Hawaiian fruit growers, a farm bureau organization, scientists, a consumer group, and a foreign agricultural agency. The commenters were generally supportive of the proposed rule, but some did raise issues about the proposal. Those issues are discussed below.

One commenter stated that the irradiation standards for Hawaiian produce are less flexible than those for international shipments. Specifically, the commenter drew attention to the provisions regarding the design of a facility's dosimetry system and procedures. The regulations in 7 CFR 305.31, which apply to imported produce, provide that the facility operator must address guidance and principles from the American Society for Testing and Materials (ASTM) Standards, or equivalent standards recognized by the Administrator. However, the regulations in 7 CFR 305.34, which apply to Hawaiian

[1] To view the proposed rule and the comments we received, go to *http://www.regulations.gov/fdmspublic/component/main?main=DocketDetail&d=APHIS-2007-0050.*

produce, specify the use of ASTM standards only, and do not allow for the use of equivalent standards. The commenter stated that this discrepancy gives greater flexibility to foreign imports and allows foreign produce to gain access to markets in the continental United States ahead of Hawaiian produce.

We note that the standards for irradiation treatment for Hawaiian produce were established before those for imports. When the standards for imports were proposed, they were identical to those already established for Hawaiian produce. However, a comment we received on that proposal rightly pointed out that the ASTM standards for dosimetry describe basic principles, effective techniques, and best practices, but do not provide absolute or mandatory standards for dosimetry systems. The same comment pointed out that other organizations, such as the National Institute of Standards and Technology, also have prepared standards regarding dosimetry that could also be used. In response to that comment, we amended the text of § 305.31 to change the manner in which we characterized the ASTM standards and to allow for the use of equivalent standards recognized by the Administrator. While it would have been appropriate to have made the same changes regarding standards to § 305.34 in the final rule that established § 305.31, it did not occur to us to do so at that time. As a result of this more recent comment bringing the discrepancy between the two sections to our attention, we are amending § 305.34(b)(6)(iii) in this final rule so that it is consistent with the corresponding provisions in § 305.31. We are also amending the regulations in § 305.32, which provide for irradiation treatment of produce from areas quarantined for Mexican fruit fly, so that its provisions regarding dosimetry standards are consistent as well.

One commenter noted that the handling, marking, and shipping requirements for irradiated produce are more stringent than for any other treatment schedules.

This may be the case; however, irradiation technology has some unique challenges that are not common with other treatments. Since irradiation treatment may render pests sterile rather than killing them outright, and therefore live pests may accompany shipments, there is no easy way to validate the irradiation treatment as may be done with other treatments. As a result, greater emphasis is placed on treatment monitoring, documentation, and system integrity when irradiation is used than when other treatments are used. This is to remove any chance for commodity commingling or reinfestation by pests.

Several commenters requested that we implement a streamlined process for approving Hawaiian produce for movement to the continental United States similar to the one now used for approving imported fruits and vegetables.

We agree that a streamlined approach would be appropriate for approving Hawaiian fruits and vegetables and intend to address the issue in a separate rulemaking currently under development.

One commenter requested clarification of why the Mediterranean fruit fly (Medfly) was included on the list of pests associated with melon from Hawaii. The commenter noted that Medfly has not been reported in interceptions from Hawaii, and that scientific literature does not include references to field infestations of melon by Medfly.

The Medfly was included in the pest risk assessment (PRA) for melon from Hawaii for several reasons. The Medfly is a serious agricultural pest and is established in Hawaii. Melon has been found to be a host of the Medfly under experimental conditions. Furthermore, the host fruit conditions determining the suitability or unsuitability of melon for Medfly are unknown. For these reasons melon as a host of Medfly in Hawaii remains in the PRA. We also note that some *Bactrocera* species fruit flies occurring in Hawaii attack melon. Because the mitigation of choice for Hawaii is irradiation treatment, which has a generic dose for all fruit flies occurring in Hawaii, Medfly as a pest on the pathway in the PRA is not an issue.

One commenter raised issues that involve matters that are not within the regulatory authority of APHIS. Specifically, the commenter expressed concern that irradiation will lead to nutrient destruction and make foods unsafe to eat. The commenter also stated that APHIS should not approve or promote irradiation treatments because irradiation facilities will pose serious risks to the communities where they are built.

We are not making any changes in response to this comment. The Food and Drug Administration (FDA) has primary regulatory responsibility for ensuring that approved irradiation doses do not render foods unsafe to eat. FDA regulations (21 CFR 179.26) establish a limit of 1 kilogray for disinfestation of arthropod pests in fresh fruits and vegetables. All of the irradiation doses contained in this rule are significantly less than this approved safe dose limit.

The safety of operations of irradiation facilities is regulated by the Nuclear Regulatory Commission (NRC). NRC ensures that such facilities are built and operated according to Federal regulations. To be licensed, the facility must have been designed with multiple fail-safe measures, and must establish extensive and well-documented safety procedures and worker training. With proper design and operating procedures, commercial irradiation facilities can be operated safely and without posing any significant radiation risk to workers or the public.

Therefore, for the reasons given in the proposed rule and in this document, we are adopting the proposed rule as a final rule, with the changes discussed in this document.

**Effective Date**

This is a substantive rule that relieves restrictions and, pursuant to the provisions of 5 U.S.C. 553, may be made effective less than 30 days after publication in the **Federal Register**.

Immediate implementation of this rule is necessary to provide relief to those persons who are adversely affected by restrictions we no longer find warranted. Making this rule effective immediately will allow Hawaii growers and others in the marketing chain to benefit from access to new markets in the continental United States as soon as possible. Therefore, the Administrator of the Animal and Plant Health Inspection Service has determined that this rule should be effective upon publication in the **Federal Register**.

**Executive Order 12866 and Regulatory Flexibility Act**

This final rule has been reviewed under Executive Order 12866. The rule has been determined to be not significant for the purposes of Executive Order 12866 and, therefore, has not been reviewed by the Office of Management and Budget.

This final rule will allow the interstate movement of mangosteen, dragon fruit, melon, pods of cowpea and its relatives, breadfruit, jackfruit, and fresh moringa pods from Hawaii after irradiation treatment. As a condition of entry, these fruits will have to meet certain other inspection and treatment requirements. This action will allow for the interstate movement of these fruits into the continental United States while continuing to provide protection against the introduction of quarantine pests.

Tropical specialty fruit production in Hawaii has been increasing rapidly in

recent years.[2] Hawaii's growers produced and sold an estimated 1.45 million pounds of tropical specialty fruit in 2006, which was approximately the same as the 2005 output of 1.46 million pounds. Sales in 2005 were the highest on record and 40 percent more than was produced and sold in 2004.[3] Sales in 2006 were valued at $2.6 million, 4 percent lower than in 2005 levels, but 34 percent higher than sales in 2004.

The final rule is not expected to result in significant economic impacts to mainland U.S. producers. The tropical specialty fruits included in this rule are not commercially grown in the continental United States. The final rule will benefit Hawaiian producers by providing a broader market for these fruits. Their movement from Hawaii will compete against imports from other countries, and the only impacts to U.S. producers will be the benefits that accrue to Hawaiian producers.

Melons and cowpeas are produced in the continental United States, but effects of allowing the interstate movement of melons from Hawaii on U.S. mainland producers of these products are expected to be minimal.

*Melons*

The predominant U.S. melon varieties are cantaloupes, honeydews, and watermelons, for which the value of U.S. production was approximately $866 million in 2006 (table 1). Over 80 percent of melon production takes place in five states. California is the leading domestic producer of all melons, accounting for 32 percent of total acreage; followed by Georgia and Arizona, with 14 percent; Texas, with 11 percent; and Florida, with 10 percent. The United States is a net importer of melons. In 2006, the total value of melons imported into the United States was $352 million, compared to $119 million worth of melons exported.[4] Nearly all (99 percent) melon farmers have receipts of not more than $750,000 annually, and are therefore classified by the Small Business Administration (SBA) as small entities.

TABLE 1.—VALUE OF U.S. MELON PRODUCTION, 2004–2006

| Commodity | 2004 | 2005 | 2006 |
|---|---|---|---|
| Cantaloupe | $322,188,000 | $335,818,000 | $340,677,000 |
| Honeydews | 92,133,000 | 91,569,000 | 90,600,000 |
| Watermelons | 313,217,000 | 445,917,000 | 434,861,000 |
| Total | 727,538,000 | 873,304,000 | 866,138,000 |

**Source:** National Agricultural Statistics Service.

We do not know the quantity or type of melons that will be moved from Hawaii to the continental United States under this rule, but we do not expect the quantity to be significant in relation to our total domestic supply. For example, the most recent NASS data on the farm value of watermelon produced in Hawaii show a value of $2.9 million in 2006, which is less than 1 percent of the value of U.S. watermelon production overall and less than 1 percent of the value of U.S. melon imports of all types.

Entry of Hawaii melons into markets in the continental United States is not expected to have a significant economic impact on mainland prices or production, especially given the irradiation treatment costs and transport costs that merchants of Hawaiian melons will have to bear. Moreover, depending on the type of melon, relative prices, and quality, shipments from Hawaii to the continental United States may at least partially substitute for imports, thereby further reducing any effects for mainland producers.

*Fresh Cowpea Pods*

The 2002 Census of Agriculture, the most recent year for which data are available, states that 151 farms harvested 13,651 acres of cowpeas in 2002. Cowpeas, also known as southern peas, blackeye peas, or crowder, are not routinely harvested as fresh cowpea pods but are allowed to dry before harvesting. Nearly all (99 percent) cowpea farmers have receipts of not more than $750,000 annually, and therefore are small entities according to SBA standards.

Fresh cowpea pods are not sold commercially by producers in the continental United States; only dried cowpea pods are marketed. Since fresh cowpea pods are not generally used as a substitute for dried cowpeas, interstate movement of fresh cowpea pods from Hawaii will not significantly impact the mainland's commercial production of cowpeas. Rather, the fresh cowpea pods from Hawaii are expected to be sold as a fresh or frozen vegetable. Immature snapped cowpea pods are used in the same way as snap beans, often mixed with other foods.[5] Green cowpea seeds can be boiled as a fresh vegetable.

The final rule is not expected to have a significant economic impact on a substantial number of small entities. The pest risk mitigation measures, including irradiation treatment, will allow the products to be safely moved interstate from Hawaii. Hawaii's producers will benefit by acquiring a broader market for these products, and any adverse effects for mainland producers will be minimal. Of the seven products addressed by this rule, only melon and cowpeas are also grown in the continental United States. Hawaii's share of the U.S. melon market is very small, and shipments to the mainland will be as likely to displace imports as they will be to compete directly with U.S. mainland production. Fresh cowpeas pods are not a product of the U.S. mainland.

Under these circumstances, the Administrator of the Animal and Plant Health Inspection Service has determined that this action will not have a significant economic impact on a substantial number of small entities.

**Executive Order 12372**

This program/activity is listed in the Catalog of Federal Domestic Assistance

[2] Tropical specialty fruits include: Abiu, atemoya, breadfruit, caimito, canistel, cherimoya, durian, jaboticaba, jackfruit, langsat, longan, loquat, litchi, mango, mangosteen, persimmon, poha, rambutan, rollina, sapodilla, soursop, starfuit, and white sapote.

[3] The statistics in this paragraph are taken from USDA National Agricultural Statistics Service (NASS), ''Hawaii Tropical Specialty Fruits,'' released September 4, 2007. *http://www.nass.usda.gov/hi/fruit/tropfrt.pdf.*

[4] World Trade Atlas 2006.

[5] Alternative Field Crops Manual, ''Cowpea,'' *http://www.hort.purdue.edu/newcrop/afcm/cowpea.html.*

under No. 10.025 and is subject to Executive Order 12372, which requires intergovernmental consultation with State and local officials. (See 7 CFR part 3015, subpart V.)

**Executive Order 12988**

This final rule has been reviewed under Executive Order 12988, Civil Justice Reform. This rule: (1) Preempts all State and local laws and regulations that are inconsistent with this rule; (2) has no retroactive effect; and (3) does not require administrative proceedings before parties may file suit in court challenging this rule.

**National Environmental Policy Act**

An environmental assessment and finding of no significant impact have been prepared for this final rule. The environmental assessment provides a basis for the conclusion that the movement of tropical fruits from Hawaii to the continental United States under the conditions specified in this rule will not have a significant impact on the quality of the human environment. Based on the finding of no significant impact, the Administrator of the Animal and Plant Health Inspection Service has determined that an environmental impact statement need not be prepared.

The environmental assessment and finding of no significant impact were prepared in accordance with: (1) The National Environmental Policy Act of 1969 (NEPA), as amended (42 U.S.C. 4321 *et seq.*), (2) regulations of the Council on Environmental Quality for implementing the procedural provisions of NEPA (40 CFR parts 1500–1508), (3) USDA regulations implementing NEPA (7 CFR part 1b), and (4) APHIS' NEPA Implementing Procedures (7 CFR part 372).

The environmental assessment and finding of no significant impact may be viewed on the Regulations.gov Web site.[6] Copies of the environmental assessment and finding of no significant impact are also available for public inspection at USDA, room 1141, South Building, 14th Street and Independence Avenue, SW., Washington, DC, between 8 a.m. and 4:30 p.m., Monday through Friday, except holidays. Persons wishing to inspect copies are requested to call ahead at (202) 690–2817 to facilitate entry into the reading room. In addition, copies may be obtained by writing to the individual listed under **FOR FURTHER INFORMATION CONTACT**.

**Paperwork Reduction Act**

In accordance with the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*), the information collection or recordkeeping requirements included in this rule have been approved by the Office of Management and Budget (OMB) under OMB control number 0579–0331.

**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. For information pertinent to E-Government Act compliance related to this rule, please contact Mrs. Celeste Sickles, APHIS' Information Collection Coordinator, at (301) 734–7477.

**Lists of Subjects**

*7 CFR Part 305*

Irradiation, Phytosanitary treatment, Plant diseases and pests, Quarantine, Reporting and recordkeeping requirements.

*7 CFR Part 318*

Cotton, Cottonseeds, Fruits, Guam, Hawaii, Plant diseases and pests, Puerto Rico, Quarantine, Transportation, Vegetables, Virgin Islands.

■ Accordingly, we are amending 7 CFR parts 305 and 318 to read as follows:

## PART 305—PHYTOSANITARY TREATMENTS

■ 1. The authority citation for part 305 continues to read as follows:

**Authority:** 7 U.S.C. 7701–7772 and 7781–7786; 21 U.S.C. 136 and 136a; 7 U.S.C. 2.22, 2.80, and 371.3.

■ 2. In § 305.31, paragraph (a), the table is amended by adding new entries, in alphabetical order, for ''*Aspidiotus destructor*'', ''*Copitarsia decolora*'', and ''*Pseudaulacaspis pentagona*'' to read as follows:

**§ 305.31 Irradiation treatment of imported regulated articles for certain plant pests.**

(a) * * *

IRRADIATION FOR CERTAIN PLANT PESTS IN IMPORTED REGULATED ARTICLES [1]

| Scientific name | Common name | Dose (gray) |
|---|---|---|
| * * * | * * * | * |
| *Aspidiotus destructor* | Coconut scale | 150 |
| * * * | * * * | * |
| *Copitarsia decolora* | (No common name) | 100 |
| * * * | * * * | * |
| *Pseudaulacaspis pentagona* | White peach scale | 150 |

[1] There is a possibility that some cut flowers could be damaged by such irradiation. See paragraph (n) of this section.

* * * * *

**§ 305.32 [Amended]**

■ 3. In § 305.32, paragraph (e)(3) is amended by adding the words ''or an equivalent standard recognized by the Administrator'' after the word ''standards''.

■ 4. Section 305.34 is amended as follows:

■ a. By adding, in alphabetical order, new entries to the table in paragraph (a) for breadfruit, cowpea pods (and its relatives), dragon fruit, jackfruit, mangosteen, melon, and moringa pods to read as set forth below.

■ b. In the table in paragraph (a), by revising footnote 1 and adding a new footnote 2 to read as set forth below.

■ c. By revising paragraphs (b)(6)(iii) and (b)(7) and the OMB citation at the end of the section to read as set forth below.

[6] Go to *http://www.regulations.gov/fdmspublic/component/main?main=DocketDetail&d=APHIS-2007-0050*. The environmental assessment and finding of no significant impact will appear in the resulting list of documents.

**§ 305.34 Irradiation treatment of certain regulated articles from Hawaii, Puerto Rico, and the U.S. Virgin Islands.**

(a) * * *

IRRADIATION FOR PLANT PESTS IN HAWAIIAN FRUITS AND VEGETABLES

| Commodity | Dose (gray) |
|---|---|
| * * * * * | |
| Breadfruit [1 2] | 400 or 150. |
| * * * * * | |
| Cowpea pods (and its relatives) [1]. | 400. |
| * * * * * | |
| Dragon fruit [1 2] | 400 or 150. |
| * * * * * | |
| Jackfruit [1 2] | 400 or 150. |
| * * * * * | |
| Mangosteen [1 2] | 400 or 150. |
| * * * * * | |
| Melon [1 2] | 400 or 150. |
| * * * * * | |
| Moringa pods [1 2] | 400 or 150. |

[1] Breadfruit, cowpea pods, dragon fruit, jackfruit, litchi, mangosteen, melon, moringa pods, and sweetpotato are also subject to the additional inspection and treatment requirements in paragraph (b)(7) of this section.

[2] Breadfruit, dragon fruit, jackfruit, mangosteen, melon, and moringa pods moving to the continental United States for treatment under limited permit in accordance with the requirements of paragraph (b)(7)(ii) of this section must be treated with the 400 gray dose.

* * * * *

(b) * * *

(6) * * *

(iii) When designing the facility's dosimetry system and procedures for its operation, the facility operator must address guidance and principles from American Society for Testing and Materials (ASTM) standards [19] or an equivalent standard recognized by the Administrator.

(7)(i) *Certification on basis of treatment.* A certificate shall be issued by an inspector for the movement of articles from Hawaii that have been treated and handled in accordance with this section.

(A) To be certified for interstate movement under this section, litchi from Hawaii must be inspected in Hawaii and found free of the litchi fruit moth (*Cryptophlebia spp.*) and other plant pests by an inspector before undergoing irradiation treatment in Hawaii for fruit flies.

(B) To be certified for interstate movement under this section, sweetpotato from Hawaii must be inspected in Hawaii and found free of the gray pineapple mealybug (*Dysmicoccus neobrevipes*) and the Kona coffee-root knot nematode (*Meloidogyne konaensis*) by an inspector before undergoing irradiation treatment in Hawaii. In addition, sweetpotato from Hawaii to be treated with irradiation at a dose of 150 Gy must be sampled, cut, and inspected in Hawaii and found to be free of the ginger weevil (*Elytrotreinus subtruncatus*) by an inspector before undergoing irradiation treatment in Hawaii. Sampling, cutting, and inspection must be performed under conditions that will prevent any pests that may emerge from the sampled sweetpotatoes from infesting any other sweetpotatoes intended for interstate movement in accordance with this section.

(C) To be certified for interstate movement under this section, breadfruit and jackfruit from Hawaii must be inspected in Hawaii and found free of spiraling whitefly (*Aleurodicus dispersus*), inornate scale (*Aonidiella inornata*), red wax scale (*Ceroplastes rubens*), green scale (*Coccus viridis*), gray pineapple mealybug (*Dysmicoccus neobrevipes*), pink hibiscus mealybug (*Maconellicoccus hirsutus*), spherical mealybug (*Nipaecoccus viridis*), citrus mealybug (*Pseudococcus cryptus*), melon thrips (*Thrips palmi*) and signs of thrip damage before undergoing irradiation treatment in Hawaii at the 150 gray dose. Fruit receiving the 150 gray dose also must either receive a post-harvest dip in accordance with treatment schedule T102–c as provided in § 305.42(b) or originate from an orchard or growing area that was previously treated with a broad-spectrum insecticide during the growing season and a pre-harvest inspection of the orchard or growing area found the fruit free of any surface pests as prescribed in a compliance agreement. Post-treatment inspection in Hawaii is not required if the fruit undergoes irradiation treatment at the 400 gray dose. Regardless of irradiation dose, the fruit must be free of stems and leaves and must originate from an orchard that was previously treated with a fungicide appropriate for the fungus *Phytophthora tropicalis* during the growing season and the fruit must be inspected prior to harvest and found free of the fungus or, after irradiation treatment, must receive a post-harvest fungicidal dip appropriate for *Phytophthora tropicalis*.

(D) To be certified for interstate movement under this section, fresh pods of cowpea and its relatives from Hawaii must be inspected in Hawaii and found free of the cassava red mite (*Oligonychus biharensis*) and adults and pupae of the order Lepidoptera before undergoing irradiation treatment. The pods must be free of stems and leaves.

(E) To be certified for interstate movement under this section, dragon fruit from Hawaii presented for inspection must have the sepals removed and must be inspected in Hawaii and found free of gray pineapple mealybug (*Dysmicoccus neobrevipes*), pink hibiscus mealybug (*Maconellicoccus hirsutus*), and citrus mealybug (*Pseudococcus cryptus*) before undergoing irradiation treatment in Hawaii at the 150 gray dose. Fruit receiving the 150 gray dose also must either receive a post-harvest dip in accordance with treatment schedule T102–c as provided in § 305.42(b) or originate from an orchard or growing area that was previously treated with a broad-spectrum insecticide during the growing season and a pre-harvest inspection of the orchard or growing area found the fruit free of any surface pests as prescribed in a compliance agreement. Post-treatment inspection in Hawaii is not required if the fruit undergoes irradiation treatment at the 400 gray dose. Regardless of irradiation dose, the fruit must be free of stems and leaves.

(F) To be certified for interstate movement under this section, mangosteen from Hawaii must have the sepals removed and must be inspected in Hawaii and found free of gray pineapple mealybug (*Dysmicoccus neobrevipes*), pink hibiscus mealybug (*Maconellicoccus hirsutus*), citrus mealybug (*Pseudococcus cryptus*), and *Thrips florum* before undergoing irradiation treatment in Hawaii at the 150 gray dose. Fruit receiving the 150 gray dose also must either receive a post-harvest dip in accordance with treatment schedule T102–c as provided in § 305.42(b) or originate from an orchard or growing area that was previously treated with a broad-spectrum insecticide during the growing season and a pre-harvest inspection of the orchard or growing area found the fruit free of any surface pests as prescribed in a compliance agreement. Post-treatment inspection in Hawaii is not required if the fruit undergoes irradiation treatment at the 400 gray dose. Regardless of irradiation dose, the fruit must be free of stems and leaves.

(G) To be certified for interstate movement under this section, melon from Hawaii must be inspected in Hawaii and found free of spiraling whitefly (*Aleurodicus dispersus*) before

[19] See footnote 4 of this subpart.

undergoing irradiation treatment in Hawaii at the 150 gray dose. Fruit receiving the 150 gray dose also must either receive a post-harvest dip in accordance with treatment schedule T102–c as provided in § 305.42(b) or originate from an orchard or growing area that was previously treated with a broad-spectrum insecticide during the growing season and a pre-harvest inspection of the orchard or growing area found the fruit free of any surface pests as prescribed in a compliance agreement. Post-treatment inspection in Hawaii is not required if the fruit undergoes irradiation treatment at the 400 gray dose. Regardless of irradiation dose, melons must be washed to remove dirt and must be free of stems and leaves.

(H) To be certified for interstate movement under this section, moringa pods from Hawaii must be inspected in Hawaii and found free of spiraling whitefly (*Aleurodicus dispersus*), inornate scale (*Aonidiella inornata*), green scale (*Coccus viridis*), and citrus mealybug (*Pseudococcus cryptus*) before undergoing irradiation treatment in Hawaii at the 150 gray dose. Fruit receiving the 150 gray dose also must either receive a post-harvest dip in accordance with treatment schedule T102–c as provided in § 305.42(b) or originate from an orchard or growing area that was previously treated with a broad-spectrum insecticide during the growing season and a pre-harvest inspection of the orchard or growing area found the fruit free of any surface pests as prescribed in a compliance agreement. Post-treatment inspection in Hawaii is not required if the fruit undergoes irradiation treatment at the 400 gray dose.

(ii) *Limited permit.* A limited permit shall be issued by an inspector for the interstate movement of untreated articles from Hawaii into the continental United States for treatment in accordance with this section.

(A) To be eligible for a limited permit under this section, untreated litchi from Hawaii must be inspected in Hawaii and found free of the litchi fruit moth (*Cryptophlebia* spp.) and other plant pests by an inspector.

(B) To be eligible for a limited permit under this section, untreated sweetpotato from Hawaii must be inspected in Hawaii and found free of the gray pineapple mealybug (*Dysmicoccus neobrevipes*) and the Kona coffee-root knot nematode (*Meloidogyne konaensis*) by an inspector. In addition, sweetpotato from Hawaii to be treated with irradiation at a dose of 150 Gy must be sampled, cut, and inspected in Hawaii and found free of the ginger weevil (*Elytrotreinus subtruncatus*) by an inspector. Sampling, cutting, and inspection must be performed under conditions that will prevent any pests that may emerge from the sampled sweetpotatoes from infesting any other sweetpotatoes intended for interstate movement in accordance with this section.

(C) To be eligible for a limited permit under this section, breadfruit and jackfruit from Hawaii must be free of stems and leaves and must originate from an orchard that was previously treated with a fungicide appropriate for the fungus *Phytophthora tropicalis* during the growing season and the fruit must be inspected prior to harvest and found free of the fungus or, after irradiation treatment, must receive a post-harvest fungicidal dip appropriate for *Phytophthora tropicalis*.

(D) To be eligible for a limited permit under this section, fresh pods of cowpea and its relatives from Hawaii must be free of stems and leaves and must be inspected in Hawaii and found free of the cassava red mite (*Oligonychus biharensis*) and adults and pupae of the order Lepidoptera.

* * * * *

(Approved by the Officer of Management and Budget under control numbers 0579–0198, 0579–0281, and 0579–0331)

## PART 318—HAWAIIAN AND TERRITORIAL QUARANTINE NOTICES

■ 5. The authority citation for part 318 continues to read as follows:

**Authority:** 7 U.S.C. 7701–7772 and 7781–7786; 7 CFR 2.22, 2.80, and 371.3.

### § 318.13–4f [Amended]

■ 6. Section 318.13–4f is amended as follows:

■ a. By adding the word ''breadfruit,'' before the words ''Capsicum spp. (peppers)''.

■ b. By adding the words ''cowpea pods,'' before the words ''Cucurbita spp. (squash)''.

■ c. By adding the word ''dragon fruit,'' before the word ''eggplant''.

■ d. By adding the word ''jackfruit,'' before the word ''litchi''.

■ e. By adding the words ''mangosteen, melon, moringa pods,'' before the word ''papaya''.

Done in Washington, DC, this 30th day of April 2008.

**Kevin Shea,**

*Acting Administrator, Animal and Plant Health Inspection Service.*

[FR Doc. E8–9978 Filed 5–5–08; 8:45 am]

BILLING CODE 3410–34–P

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

### 14 CFR Part 39

**[Docket No. FAA–2008–0489; Directorate Identifier 2007–SW–59–AD; Amendment 39–15507; AD 2008–10–01]**

**RIN 2120–AA64**

## Airworthiness Directives; Eurocopter France Model EC120B Helicopters

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

**ACTION:** Final rule; request for comments.

**SUMMARY:** We are adopting a new airworthiness directive (AD) for Eurocopter France Model EC120B helicopters. This AD results from mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another country to identify and correct an unsafe condition on a helicopter. The aviation authority of France, with which we have a bilateral agreement, states in the MCAI:

> This Airworthiness Directive (AD) follows upon the discovery of a batch of spherical thrust bearings which prove to be unfit for flight.

This AD requires actions that are intended to address the unsafe condition caused by the manufacture of a batch of spherical thrust bearings that are not airworthy because they were not manufactured in accordance with an approved type design. Failure of a spherical thrust bearing during flight could cause the main rotor (M/R) system to separate from the helicopter, which would be catastrophic.

**DATES:** This AD becomes effective on May 21, 2008.

We must receive comments on this AD by July 7, 2008.

**ADDRESSES:** You may send comments by any of the following methods:

- *Federal eRulemaking Portal:* Go to *http://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:* U.S. Department of Transportation, Docket Operations, M–30, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue, SE., Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

You may get the service information identified in this proposed AD from

American Eurocopter Corporation, 2701 Forum Drive, Grand Prairie, Texas 75053–4005, telephone (972) 641–3460, fax (972) 641–3527.

*Examining the AD Docket:* You may examine the AD docket on the Internet at *http://www.regulations.gov*, or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the economic evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone (800) 647–5527) is in the **ADDRESSES** section. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Gary Roach, Aviation Safety Engineer, FAA, Rotorcraft Directorate, Regulations and Guidance Group, Fort Worth, Texas 76193–0111, telephone (817) 222–5130, fax (817) 222–5961.

**SUPPLEMENTARY INFORMATION:**

## Streamlined Issuance of AD

The FAA is implementing a new process for streamlining the issuance of ADs related to MCAI. This streamlined process will allow us to adopt MCAI safety requirements in a more efficient manner and will reduce safety risks to the public. This process continues to follow all FAA AD issuance processes to meet legal, economic, Administrative Procedure Act, and **Federal Register** requirements. We also continue to meet our technical decision-making responsibilities to identify and correct unsafe conditions on U.S.-certificated products.

This AD references the MCAI and related service information that we considered in forming the engineering basis to correct the unsafe condition. The AD contains text copied from the MCAI and for this reason might not follow our plain language principles.

## Discussion

The Direction generale de l'aviation civile France (DGAC), the Airworthiness Authority of the State of Design, has issued an MCAI for the affected helicopters in the form of DGAC Airworthiness Directive No. F–2006–040, dated February 15, 2006 (referred to after this as ''the MCAI''), to correct an unsafe condition for this French-certificated helicopter. The MCAI states:

> This Airworthiness Directive (AD) follows upon the discovery of a batch of spherical thrust bearings which prove to be unfit for flight.

These are critical parts that retain the main rotor to the M/R hub and flexes to allow the M/R blades to pitch. We were previously informed by the manufacturer that all affected spherical thrust bearings had been recovered by Eurocopter France. However, we recently learned that some affected spherical thrust bearings have not been recovered and may still be installed on some helicopters.

You may obtain further information by examining the MCAI and service information in the AD docket.

## Relevant Service Information

Eurocopter has issued Eurocopter Alert Telex No. 04A006, dated January 27, 2006. The actions described in the MCAI are intended to correct the same unsafe condition as that identified in the alert telex.

## FAA's Determination and Requirements of This AD

These helicopters have been approved by the aviation authority of France, and are approved for operation in the United States. Pursuant to our bilateral agreement with France, the State of Design, we have been notified of the unsafe condition described in the MCAI. We are issuing this AD because we evaluated all pertinent information and determined the unsafe condition exists and is likely to exist or develop on other helicopters of the same type design.

## Differences Between the AD and the MCAI

We have reviewed the MCAI and agree with it. Therefore, there are no differences.

## FAA's Determination of the Effective Date

An unsafe condition exists that requires the immediate adoption of this AD. The FAA has found that the risk to the flying public justifies waiving notice and comment prior to adoption of this rule because we were previously informed by the manufacturer that all affected spherical thrust bearings had been recovered by Eurocopter France. However, we recently learned that some affected spherical thrust bearings have not been recovered and may still be installed on some helicopters. Failure of a spherical thrust bearing during flight could cause the M/R system to separate from the helicopter, which would be catastrophic. Therefore, we determined that notice and opportunity for public comment before issuing this AD are impracticable and that good cause exists for making this amendment effective in fewer than 30 days.

## Comments Invited

This AD is a final rule that involves requirements affecting flight safety, and we did not precede it by notice and opportunity for public comment. We invite you to send any written relevant data, views, or arguments about this AD. Send your comments to an address listed under the **ADDRESSES** section. Include ''Docket No. FAA–2008–0489; Directorate Identifier 2007–SW–59–AD'' at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this AD. We will consider all comments received by the closing date and may amend this AD because of those comments.

We will post all comments we receive, without change, to *http://www.regulations.gov*, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this AD.

## Cost of Compliance

We estimate that this AD will affect about 96 helicopters of U.S. Registry. However, the cost of the inspection to determine if one of the affected spherical thrust bearings is installed is negligible. For affected helicopters, we estimate that it will take about 4 work-hours per helicopter to remove and replace a spherical thrust bearing. The average labor rate is $80 per work-hour. Required parts will cost about $4,500 per helicopter. Based on these figures, we estimate the cost of this AD on U.S. operators to be $19,280 for the entire fleet, assuming that the 4 spherical thrust bearings are replaced, or $4,820 per helicopter.

## 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.

We are 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

We determined that 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. Is not a ''significant rule'' under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); 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.

We prepared an economic evaluation of the estimated costs to comply with this AD and placed it in the AD docket.

### List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, 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 AD:

**2008–10–01 Eurocopter France:** Amendment 39–15507. Docket No. FAA–2008–0489; Directorate Identifier 2007–SW–59–AD.

**Effective Date**

(a) This airworthiness directive (AD) becomes effective on May 21, 2008.

**Other Affected ADs**

(b) None.

**Applicability**

(c) This AD applies to Model EC120B helicopters, with spherical thrust bearings, part number 7050A3622036, serial number LK0130, LK0142, LK0155, and LK0158, installed, certificated in any category.

**Reason**

(d) The mandatory continued airworthiness information (MCAI) states:

This Airworthiness Directive (AD) follows upon the discovery of a batch of spherical thrust bearings which prove to be unfit for flight. This AD requires actions that are intended to address the unsafe condition caused by the manufacture of a batch of spherical thrust bearings that are not airworthy because they were not manufactured in accordance with approved type design. Failure of a spherical thrust bearing during flight could cause the main rotor (M/R) system to separate from the helicopter, which would be catastrophic.

**Actions and Compliance**

(e) Before further flight, remove any spherical thrust bearing, part number 7050A3622036, serial numbers LK0130, LK0142, LK0155, or LK0158, and replace it with an airworthy spherical thrust bearing.

**Differences Between the FAA AD and the MCAI**

(f) None.

**Subject**

(g) Air Transport Association of America (ATA) Code 6220, Main Rotor Hub.

**Other FAA AD Provisions**

(h) The following information also applies to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, Safety Management Group, Rotorcraft Directorate, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Gary Roach, Aviation Safety Engineer, FAA, Rotorcraft Directorate, Regulations and Guidance Group, Fort Worth, Texas 76193–0111, telephone (817) 222–5130, fax (817) 222–5961.

(2) Airworthy Product: Use only FAA-approved corrective actions. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent) if the State of Design has an appropriate bilateral agreement with the United States. You are required to ensure the helicopter is airworthy before it is returned to service.

(3) Reporting Requirements: For any reporting requirement in this AD, under the provisions of the Paperwork Reduction Act, the Office of Management and Budget (OMB) has approved the information collection requirements and has assigned OMB Control Number 2120–0056.

**Related Information**

(i) Mandatory Continuing Airworthiness Information Direction generale de l'aviation civile Airworthiness Directive No. F–2006–040, dated February 15, 2006, contains related information.

Issued in Fort Worth, Texas, on April 23, 2008.

**David A. Downey,**

*Manager, Rotorcraft Directorate, Aircraft Certification Service.*

[FR Doc. E8–9799 Filed 5–5–08; 8:45 am]

BILLING CODE 4910–13–P

## DEPARTMENT OF TRANSPORTATION

## Federal Aviation Administration

## 14 CFR Part 39

**[Docket No. FAA–2008–0490; Directorate Identifier 2008–SW–26–AD; Amendment 39–15509; AD 2008–10–03]**

**RIN 2120–AA64**

## Airworthiness Directives; Bell Helicopter Textron Model 204B, 205A, 205A–1, 205B, 210, 212, 412, 412CF, and 412EP Helicopters

**AGENCY:** Federal Aviation Administration, DOT.

**ACTION:** Final rule; request for comments.

**SUMMARY:** This amendment adopts a new airworthiness directive (AD) for the specified Bell Helicopter Textron (Bell) model helicopters. This action requires certain checks and inspections of each tail rotor blade assembly (T/R blade) at specified intervals and repairing or replacing, as applicable, any unairworthy T/R blade. This amendment is prompted by three failures of a T/R blade occurring during flight and a recent incident of a cracked T/R blade discovered during a scheduled visual inspection. The actions specified in this AD are intended to detect damage to a T/R blade that could lead to cracking of a T/R blade and subsequent loss of control of the helicopter.

**DATES:** Effective May 21, 2008.

Comments for inclusion in the Rules Docket must be received on or before July 7, 2008.

**ADDRESSES:** Use one of the following addresses to submit comments on this AD:

- *Federal eRulemaking Portal:* Go to *http://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:* U.S. Department of Transportation, Docket Operations, M–30, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue, SE., Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

You may get the service information identified in this AD from Bell Helicopter Textron, Inc., P.O. Box 482, Fort Worth, Texas 76101, telephone (817) 280–3391, fax (817) 280–6466.

*Examining the Docket:* You may examine the docket that contains the

AD, any comments, and other information on the Internet at *http://www.regulations.gov,* or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The Docket Operations office (telephone (800) 647–5527) is located in Room W12–140 on the ground floor of the West Building at the street address stated in the **ADDRESSES** section. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Michael Kohner, Aviation Safety Engineer, FAA, Rotorcraft Directorate, Rotorcraft Certification Office, Fort Worth, Texas 76193–0170, telephone (817) 222–5447, fax (817) 222–5783.

**SUPPLEMENTARY INFORMATION:** A proposal to amend 14 CFR part 39 to include an AD for the specified model helicopters was published in the **Federal Register** as Docket No. FAA–2006–26219, Directorate Identifier 2004–SW–49–AD on November 2, 2006 (71 FR 64484). That Notice of Proposed Rulemaking (NPRM) was prompted by eight reports of fatigue cracking of T/R blades installed on Bell Model 212 and 412 helicopters (three failures on the Bell Model 212 and five failures on the Bell Model 412) with a blade assembly, part number (P/N) 212–010–750–009, –105, and –107. Six of the cracks initiated between blade stations 30 to 33.5; one crack initiated at blade station 21.9; and one crack initiated at blade station 27.6. Three of these T/R blades failed during flight and all were installed on Bell Model 412 series helicopters. In one of the in-flight failures, the T/R blade failed due to a fatigue crack that initiated in the blade skin from a nick .060 inches long by .008 inches deep. The initial damage was above the maximum allowable damage limit for the blade skin provided in the maintenance manual. That failed blade had accumulated 1,478 hours time-in-service (TIS). In another in-flight failure, a section of the T/R blade separated from the helicopter during cruise flight at 5,500 feet. The helicopter was reported to have violently turned down and to the left. The helicopter ''leveled out'' at approximately 1,000 feet before setting down in the water. The blade failed due to a cracked stainless steel leading edge spar that originated from a corrosion pit .001 inches deep. The corrosion area extended .003 inches along the surface of the origin location. That blade had accumulated 4,643 hours TIS. In the third in-flight failure, sanding on the spar and chem-milling was found during a post-accident investigation. The crack had initiated at blade station 21.9 and the blade had accumulated 1,232 hours TIS. Also, the following blades were found cracked:

| Model | Year | P/N 212–010–750– | Hours TIS | Blade station (in.) | Crack length (in.) | Initial damage part and type | Initial damage size |
|---|---|---|---|---|---|---|---|
| 212 | 1973 | −009 | 3,224 | 32.2 | 6.5 | Skin—Corrosion | .030 in. wide. |
| 212 | 1985 | −009 | 279 | 31.5 | 13.0 | Spar—Manufacturing Notch. | .090 in. wide. |
| 212 | 1991 | −105 | 423 | 30.8 | 8.0 | Skin—Non Sharp Dent | .75 in. long. |
| 412 | 1990 | −009 | 3,876 | 27.6 | 8.0 | Skin—Corrosion | Unknown. |
| 412 | 1996 | −105 | 1,235 | 30.0 | 8.3 | Skin—Scratch | .45 in. long by .005 in. deep. |

The NPRM proposed to require the following interim actions until either a more rigorous inspection is developed or a new blade that is more damage tolerant is designed:

- Before each start of the engines, visually checking each T/R blade for a crack;
- Within 25 hours TIS or 15 days, whichever occurs first, and thereafter at intervals not to exceed 25 hours TIS or 15 days, whichever occurs first, cleaning and visually inspecting each T/R blade for a crack, corrosion, nick, scratch, or dent using a 3-power or higher magnifying glass and a bright light;
- If certain damage is found, inspecting for a crack or corrosion using a 10-power or higher magnifying glass and measuring the depth of any damage; and
- Before further flight, replacing any cracked T/R blade and repairing or replacing any otherwise unairworthy T/R blade.

Since the issuance of that NPRM, we were notified that a crack was found on another T/R blade, P/N 212–010–750–105 FM, installed on a Bell Model 412EP helicopter. The crack was discovered while the helicopter was on the ground during a scheduled visual inspection. The T/R blade is now being examined at the manufacturer's field investigation lab. The crack is located approximately in the center of the TR blade span and extends across the majority of the chord. The T/R blade had accumulated 2,076 hours TIS. Because P/N 212–010–750–105 FM was not included in the applicability of the NPRM, and because a crack growth analysis using the striation count data from one of the failed T/R blades predicted a crack propagation rate of approximately 77 hours TIS from damage initiation to blade failure, we will withdraw that NPRM and issue this AD as a Final rule; request for comments. This AD contains the proposed requirements from the NPRM; however, we've included additional P/Ned blades and made other changes based on the comments to the NPRM. In response to the NPRM we received several comments from 4 commenters; the manufacturer, the Canadian National Defence Headquarters, and 2 individuals.

Two commenters suggest changing the compliance time for the proposed actions. One of the commenters suggests changing the proposed initial inspection from 25 hours TIS or 15 days to 25 hours TIS or 30 days and changing the recurring inspection from 25 hours TIS or 15 days to 25 hours TIS or 30 days. The other commenter believes that a visual inspection before the first flight of each day would be adequate and that a limit of 10 hours between visual inspections in any one day could be added. The same commenter states that it is not always practical (*e.g.* carrying a suitable safe ladder for conducting an adequate inspection and carry passengers) and might also be hazardous (*e.g.* doing an inspection from an offshore oil field platform where there is no ladder or stand available or where there is restricted space and the possibility of high wind speeds) to do a visual inspection before each engine start. Finally, one commenter, the manufacturer, states that it is impractical to require inspection of the T/R blades before each flight or engine start unless we are referring to a ground-level visual inspection because a ladder, which is not available in the field, would be required for a hands-on inspection. It recommends an

inspection in accordance with the maintenance manual. The manufacturer further recommends an inspection for more than just ''cracks'', that is, any damage beyond limits in accordance with the published schedule and requirements in the maintenance manual.

We concur with the recommendation to change the initial and recurring inspections from 25 hours TIS or 15 days to 25 hours TIS or 30 days. The 15-day interval was originally proposed because a corrosion pit was the initiation point for one of the failures and that interval is consistent with FAA advisory material relating to the detection of corrosion. Since the proposal was published, we have reevaluated the need for the interval and determined that a 30-day interval is adequate for this inspection and the AD is revised accordingly. We do not concur that a visual inspection before the first flight of each day would be adequate and that a limit of 10 hours between visual inspections in any one day should be added. Additionally, we do not agree with the manufacturer that a 60-day interval would be appropriate because of the quick degradation in the T/R blade strength. However, we do agree that it is not always practical to require a detailed visual inspection of the T/R blades using a ladder before each flight or engine start. The proposed owner/operator (pilot) check was only intended to be a ''walk around'' check to detect any large cracks. Although the Canadian commenter states that their inspection from the ground is not considered effective, we have received reports that two cracked blades were discovered during checks performed from the ground. The initial and recurring inspections performed by a mechanic are detailed, up-close inspections.

One commenter also suggests that instead of requiring a mandatory daily log book entry stating compliance with the AD that ''the blade inspection be made a required preflight checklist item with no daily log book entry required.'' If a logbook entry is required, the commenter suggests that it be a separate entry made at the time the 25 hour is signed off. We have determined that this critical check needs to be mandated. This determination is based on the critical nature of this failure and that the length of a crack is predicted to grow quickly once it is detectable based on the service history of these T/R blades. All required inspections, including the pilot checks specifically approved by this AD, must be recorded at the time they are performed. That recording evidences that the required AD actions have been performed. If it is not recorded, the aircraft is not in compliance with the AD and is unairworthy.

In addition to comments regarding the inspection times and types, the manufacturer provided other comments to the NPRM. Those comments and our responses follow:

| Comment | Response |
|---|---|
| The AD lists a 1991 Model 212 with a .75″ crack * * * that Bell questions since they have no conclusive technical data on it. They also question our references to a 77 hour crack propagation from striation count and state that the 77 hour value is actually from a crack growth analysis that simply includes striation count data. Bell also states that they are aware of only 4, not 8, existing M205Bs that are of FAA certified configuration. | The cracked T/R blade in question is found in the FAA service difficulty database. An approximate 8-inch crack was found in the T/R blade installed on a Bell Model 212 helicopter during a daily inspection. The crack was located 20.25 inches inboard from the tip of the T/R blade running through a .75 inch long smooth dent. The part number of the T/R blade was 212–010–750–105 with a total time of 423 hours.<br>We agree with the comment about the reference to the 77 hour crack propagation and the number of existing M205B helicopters and have revised this AD accordingly. |
| The listed tail rotor dash numbers appear to be incorrect. The Model 204B does not use the 212–010–750 tail rotor blade and there also appears to be several of the later dash numbers missing from various models. | While the standard Model 204B helicopter may not use this particular T/R blade, the 212–010–750 T/R blade may be on a modified Model 204B helicopter that does use this blade. To assure that we have covered all affected blades, the applicability now encompasses all affected dash-numbered T/R blades. |
| Recommend changing areas called out for special attention to Stations 25.0 to 35.0 (both sides) for damage/corrosion and include inboard blade butt area surrounding balance weights/screws for cracks. | Agree with this change and have revised this AD accordingly. |
| There have not been eight reported failures, there have been three. All others are reported cracks in the blade skin, not ''failures.'' The term ''failure'' can be misleading. | A crack in a blade makes that blade unable to safely perform its intended function. Thus, there are now 9 T/R blades that meet that criteria. |
| Bell objects to our statement in the NPRM that ''The requirements of the proposed AD would be interim actions until either a more rigorous inspection is developed or a new blade that is more damage tolerant is designed.'' Bell states ''Although we are in concept discussions with DND, completion and certification of this blade is many months away and could be misleading to the commercial community.'' | As we understand this objection by the manufacturer, it believes that a redesigned blade is unnecessary and that the current inspections are adequate. We do not agree. Based on the fracture analysis, once the crack reaches a size that is detectable by inspection, it is predicted to grow quickly. Therefore, for the affected T/R blades, it is critical to find a crack or damage that could lead to a crack at the earliest opportunity. The service history of these affected T/R blades has shown that the current inspections are inadequate to reveal these cracks before blade failure. One T/R blade failed and another one cracked because of manufacturing damage on the inside of the T/R blade. That damage was not initially detectable by external inspection. Another T/R blade failed during flight due to cracking that initiated from a corrosion pit in the leading edge spar that was too small to be readily detected. Therefore, replacing the affected T/R blades with a redesigned, more damage-tolerant T/R blade is anticipated as terminating action for the requirements of this AD. |

Another commenter, the Canadian National Defence Headquarters, views the proposed actions as a ''good first step'' but offers several recommendations. Those recommendations and our responses follow:

| Recommendation | Response |
|---|---|
| "Promulgate to other aviation regulation agencies worldwide because there are many more airframes affected than the '388 helicopters of U.S. registry'." | Our standard practice is to send our ADs to aviation authorities with which we have a bilateral agreement. In turn, it is then at their discretion whether or not to follow up with similar action. |
| Adjust the inspection frequency as a function of the operations environment, e.g., a 12.5 hours inspection frequency using the 10x magnification (noting that deployments of small numbers of aircraft take the minimum support equipment required) visual inspection for operations using "harsh & rough" landing fields and an interval of 25 hours inspection for paved landing fields. | We agree that the risk of incurring damage in the T/R blade would be less for those helicopters operated on paved landing fields versus "harsh & rough" landing fields. Defining and enforcing such an inspection interval, however, would be difficult because helicopters operate in so many varied environments. We believe the commet to use a 10-power magnifying glass may be a typographical error because the Canadian National Defense uses a 2-power magnifying glass and a good source of light every 12.5 hours TIS for the visual inspection of the T/R blades on their Model 412CF helicopters. Regardless, we have determined that a 25-hour TIS inspection using a 3x or higher magnifying glass is best for the overall safe operation of these helicopters in the U.S. |
| Specify that the visual check be carried out by an appropriately qualified person. | We do not believe that further information regarding who can carry out this visual check is necessary. The visual check is only intended to detect a large-scale crack and we believe an owner/operator (pilot) is qualified to perform this "walk-around" function. |
| Define what constitutes a "bright light" | The illumination levels are historically not given for visual inspections that are mandated by an AD. We believe what constitutes a bright light can be adequately determined by the individuals who are qualified to do the inspection. We also did not want to create additional calibration and recordkeeping requirements. |
| Implement damage mapping as a means to increase detectability of new damage and decrease the maintenance burden. | Inspection of the T/R blade records and recording any damage found within the repair limits are in the maintenance instructions for the T/R blade inspection on the applicable helicopters. These steps are currently in the applicable maintenance procedures. Operators are free to implement such mapping if they believe it will reduce their maintenance burden. |
| Carry out a Type 1, Method C, Level III dye-penetrant inspection in cases where difficulties are encountered in determining the presence of a crack by visual inspection. | We believe the requirement to use of a 10-power magnifying glass is adequate. |

We have reviewed the following Bell documents:

- Operations Safety Notice OSN 205–02–37, OSN 205B–02–10, OSN 212–02–39, OSN 412–02–25, OSN 412CF–02–05, and OSN UH–1H–II–02–3, dated August 27, 2002. These Operations Safety Notices apply to all owners and operators of Bell 205, 205B, 212, 412, 412CF, and UH–1H–II helicopters and were written to remind operators of the following:
- The importance of accomplishing a complete inspection of the T/R blades at specified inspection intervals;
- That the blades must be cleaned in order to perform an adequate visual inspection to determine their condition; and
- That maintenance manuals and component repair and overhaul manuals are to be consulted for damage limits and repair criteria as required.
- Alert Service Bulletin No. 412CF–03–20, dated February 6, 2003, which applies to Model 412CF helicopters and provides instructions for doing a visual inspection of certain T/R blades immediately and every 25 hours TIS in accordance with the Model 412CF maintenance manual and instructions for sending the affected tail rotor blade to DND "Calgary Supply Center" for refinishing and reidentification.
- Bell Maintenance Document C–12–146–000/MF–001, Mod 4, dated February 12, 2004, which applies to Model 412CF helicopters and specifies a tail rotor blade damage records check and a visual inspection for dents, nicks, cracks, paint chips, or blisters using a 2-power magnifying glass and a good source of light in specified areas of the tail rotor blades (reference 64–00–00, section 64–38, page 42).

This unsafe condition is likely to exist or develop on other helicopters of these same type designs. Therefore, this AD is being issued to detect damage to a T/R blade that could lead to cracking of a T/R blade and subsequent loss of control of the helicopter. This AD requires:

- Before each start of the engines, visually checking each T/R blade for a crack. An owner/operator (pilot) holding at least a private pilot certificate may perform this visual check and must enter compliance with paragraph (a) of this AD into the aircraft maintenance records in accordance with 14 CFR 43.11 and 91.417(a)(2)(v). A pilot may do this check because it requires no special tools and can be performed equally well by a pilot or a mechanic.
- Within 25 hours TIS or 30 days, whichever occurs first, unless accomplished previously, and thereafter at intervals not to exceed 25 hours TIS or 30 days, whichever occurs first, cleaning and visually inspecting the T/R blade skins, leading edge spar, doublers, grip plates, and trailing edge for a crack, corrosion (may be indicated by blistering, peeling, flaking, bubbling, or cracked paint) and any other damage (including a nick, scratch, or dent) using a 3x or higher magnifying glass.
- If certain damage is found, inspecting the affected area using a 10-power or higher magnifying glass and measuring the depth of the damage.
- Before further flight, repairing or replacing, as applicable, any unairworthy T/R blade. The short compliance time involved is required because a cracked or damaged T/R blade creates an unsafe condition that can adversely affect the structural integrity and controllability of the helicopter. Therefore the required actions within the specified short time intervals require that this AD be issued immediately.

Since a situation exists that requires the immediate adoption of this regulation, it is found that notice and opportunity for prior public comment hereon are impracticable, and that good cause exists for making this amendment effective in less than 30 days.

We estimate that this AD will affect 384 helicopters of U.S. registry. There

are approximately 184 Model 205A and 205A–1 helicopters, 4 Model 205B helicopters, 101 Model 212 helicopters, 80 Model 412, 412CF, and 412EP helicopters, and 15 modified Model 204B helicopters. Each visual check will take .125 hours, each visual inspection will take .5 hours, and 6 hours to remove and replace each T/R blade assembly, if necessary. The average labor rate is $80. Replacement parts will cost $11,243 for each T/R blade assembly. Based on these figures, the estimated cost impact of the AD for all of the affected models will be $1,828,855 assuming an average of 600 hours TIS per year for each helicopter resulting in 365 visual checks, 24 inspections, and 5 T/R blade assembly replacements for the total fleet.

**Comments Invited**

This AD is a final rule that involves requirements that affect flight safety and was not preceded by notice and an opportunity for public comment; however, we invite you to submit any written data, views, or arguments regarding this AD. Send your comments to an address listed under **ADDRESSES**. Include ''Docket No. FAA–2008–0490; Directorate Identifier 2008–SW–26–AD'' at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of the AD. We will consider all comments received by the closing date and may amend the AD in light of those comments.

We will post all comments we receive, without change, to *http://www.regulations.gov,* including any personal information you provide. We will also post a report summarizing each substantive verbal contact with FAA personnel concerning this AD. Using the search function of our docket Web site, you can find and read the comments to any of our dockets, including the name of the individual who sent the comment. You may review the DOT's complete Privacy Act Statement in the **Federal Register** published on April 11, 2000 (65 FR 19477–78).

**Regulatory Findings**

We have determined that 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 the regulation:

1. Is not a ''significant regulatory action'' under Executive Order 12866;

2. Is not a ''significant rule'' under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); 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.

We prepared an economic evaluation of the estimated costs to comply with this AD. See the AD docket to examine the economic evaluation.

**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.

We are 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.

**List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Safety.

**Adoption of the Amendment**

■ Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (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. Section 39.13 is amended by adding a new airworthiness directive to read as follows:

**2008–10–03 Bell Helicopter Textron:** Amendment 39–15509. Docket No. FAA–2008–0490; Directorate Identifier 2008–SW–26–AD.

**Applicability**

The following model helicopters, with the specified tail rotor blade assembly (T/R blade) installed, certificated in any category:

| Helicopter model | With T/R blade, part number (P/N) |
|---|---|
| 204B, 205A, 205A–1, 212, 412, 412CF, and 412EP | 212–010–750–(all dash numbers). |
| 205B | 212–010–750–(all dash numbers).<br>212–015–501–(all dash numbers). |
| 210 | 210–010–001–(all dash numbers).<br>212–010–750–(all dash numbers). |

**Compliance**

Required as indicated.

To detect any damage in a T/R blade, prevent cracking of a T/R blade leading to failure from static overload, and subsequent loss of control of the helicopter, accomplish the following:

(a) Before each start of the engines, visually check both sides of each T/R blade for a crack. An owner/operator (pilot) holding at least a private pilot certificate may perform this visual check and must enter compliance with this paragraph into the aircraft maintenance records in accordance with 14 CFR 43.11 and 91.417(a)(2)(v).

(b) Within 25 hours time-in-service (TIS) or 30 days, whichever occurs first, unless accomplished previously, and thereafter at intervals not to exceed 25 hours TIS or 30 days, whichever occurs first:

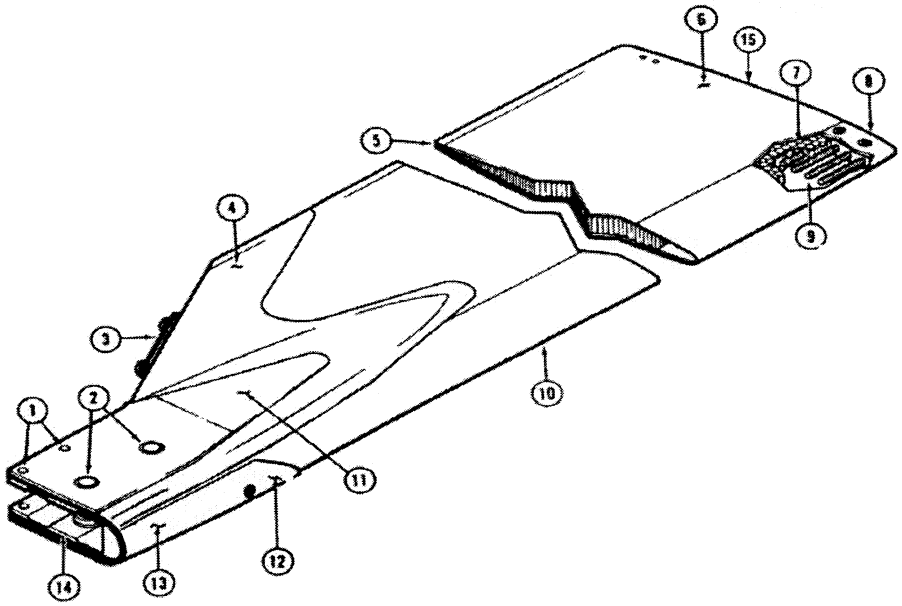
(1) Clean each T/R blade by hand using a mild degreaser and water to remove soot and grime on both sides of the blade using a coarse, loosely woven cotton cloth in a spanwise direction. Use a cloth with a color that contrasts with the color of the T/R blade so that a snag will be visible.

(2) Using a 3-power or higher magnifying glass and a bright light, visually inspect the T/R blade skins, leading edge spar, doublers, grip plates, and trailing edge for a crack, corrosion (may be indicated by blistering, peeling, flaking, bubbling, or cracked paint) and any other damage (including a nick, scratch, or dent). See Figure 1 of this AD. Pay particular attention to both sides of the T/R blade in the area located 16 to 26 inches from the T/R blade tip (blade station 25 to 35—the T/R blade tip is located at blade station 51) and to the inboard blade butt area near the attachment of the external balance weights

and screws. Also pay particular attention to any blade surface that was snagged by the cloth, as that may be an indication of a crack or paint chip that could lead to corrosion.

BILLING CODE 4910–13–P

1. Pitch Horn Blade Bolts
2. Blade Grip Bolt Holes
3. External Balance Weights
4. Doubler
5. Trailing Edge
6. Skin
7. Honeycomb Core
8. Tip Block
9. Balance Screws
10. Spar
11. Grip Plate
12. Drain Hole Doubler
13. Butt Block
14. Inner Grip Plate
15. Tip Closure




T/R Blade Assembly
Figure 1

BILLING CODE 4910–13–C

(3) If any blistering, peeling, flaking, bubbling, or cracked paint is detected, remove the paint from the affected area and visually inspect the affected area for corrosion or a crack using a 10-power or higher magnifying glass. If any corrosion is found, measure the depth of the corrosion (a digital optical micrometer is one tool that can be used for this measurement).

(4) If a nick, scratch, or dent is found, visually inspect for a crack using a 10-power or higher magnifying glass and measure the depth of the damage (a digital optical micrometer is one tool that can be used for this measurement).

(c) Before further flight:

(1) Replace any T/R blade that has a crack with an airworthy blade.

(2) Replace any T/R blade that has any corrosion, nick, scratch, dent, or other damage that exceeds any maximum repair limit with an airworthy blade.

**Note 1:** The maximum repair limits are specified in the applicable maintenance manual.

(3) Repair or replace with an airworthy blade any T/R blade that has any corrosion, nick, scratch, dent or other damage that is within the maximum repair limits.

**Note 2:** The repair procedures are specified in the applicable maintenance manual and component repair and overhaul manuals.

(d) To request a different method of compliance or a different compliance time for this AD, follow the procedures in 14 CFR 39.19. Contact the Manager, Rotorcraft Certification Office, Rotorcraft Directorate, FAA, ATTN: Michael Kohner, Aviation Safety Engineer, Fort Worth, Texas 76193–0170, telephone (817) 222–5447, fax (817) 222–5783, for information about previously approved alternative methods of compliance.

(e) This amendment becomes effective on May 21, 2008.

Issued in Fort Worth, Texas, on April 22, 2008.

**Mark R. Schilling,**

*Acting Manager, Rotorcraft Directorate, Aircraft Certification Service.*

[FR Doc. E8–9790 Filed 5–5–08; 8:45 am]

**BILLING CODE 4910–13–P**

## DEPARTMENT OF TRANSPORTATION

## Federal Aviation Administration

## 14 CFR Part 39

**[Docket No. FAA–2007–0371; Directorate Identifier 2007–NM–269–AD; Amendment 39–15511; AD 2008–10–05]**

**RIN 2120–AA64**

## Airworthiness Directives; BAE Systems (Operations) Limited Model BAe 146 and Model Avro 146–RJ Airplanes

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

**ACTION:** Final rule.

**SUMMARY:** We are adopting a new airworthiness directive (AD) for the products listed above. This AD results from service history of incidents and accidents involving transport category turbojet airplanes without leading edge high lift devices. This service history shows that even small amounts of frost, ice, snow, or slush on the wing leading edges or forward upper wing surfaces can cause an adverse change in the stall speeds and stall characteristics, and can negate the protection provided by a stall protection system. While there have been no accidents or incidents related to wing contamination associated with the BAE Systems (Operations) Limited Model BAe 146 and Model Avro 146–RJ airplanes, these airplanes are also transport category turbojet airplanes without leading edge high lift devices, and therefore may be similarly sensitive to small amounts of wing contamination. This AD requires revising the airplane flight manual to include a new cold weather operations limitation. We are issuing this AD to prevent possible loss of control on takeoff resulting from even small amounts of frost, ice, snow, or slush on the wing leading edges or forward upper wing surfaces. We are issuing this AD to require actions to correct the unsafe condition on these products.

**DATES:** This AD becomes effective June 10, 2008.

**ADDRESSES:** You may examine the AD docket on the Internet at *http://www.regulations.gov* or in person at the U.S. Department of Transportation, Docket Operations, M–30, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue, SE., Washington, DC.

**FOR FURTHER INFORMATION CONTACT:** Todd Thompson, Aerospace Engineer, International Branch, ANM–116, Transport Airplane Directorate, FAA, 1601 Lind Avenue, SW., Renton, Washington 98057–3356; telephone (425) 227–1175; fax (425) 227–1149.

**SUPPLEMENTARY INFORMATION:**

### Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to include an AD that would apply to the specified products. That NPRM was published in the **Federal Register** on December 26, 2007 (72 FR 72968). That NPRM proposed to require revising the airplane flight manual to include a new cold weather operations limitation.

### Comments

We gave the public the opportunity to participate in developing this AD. We have considered the comment received.

### Request to Withdraw NPRM or Revise Paragraph (e)

BAE Systems (Operations) Limited, type certificate holder for Model BAe 146 and Model Avro 146–RJ airplanes, states that it has reviewed the NPRM and is preparing advice in an expanded flight crew operations manual (FCOM) to explain the importance of a ''clean wing'' prior to takeoff. The information in that manual, including the use of tactile checks, permits operators and de-/anti-icing service providers to develop procedures to suit local arrangements. BAE Systems states that this approach is consistent with other regional aircraft types for which airplane flight manual (AFM) revisions have not been mandated. While BAE Systems fully supports safety initiatives aimed at minimizing wing contamination, BAE Systems asserts that a safety concern does not exist on the Model BAe 146 and Model Avro 146–RJ airplanes for the following reasons:

- No accidents or incidents due to upper surface contamination have occurred on Model BAe 146 and Model Avro 146–RJ airplanes (this information was not included in the Summary of the NPRM).
- The different wing shape on Model BAe 146 and Model Avro 146–RJ airplanes make them less susceptible to the effects of leading edge and upper surface contamination.
- There is no evidence that small/visually imperceptible amounts of ice on the wing of these airplanes would lead to loss of control during takeoff.

BAE Systems asks that if we amend 14 CFR part 39 to require the additional limitations in the AFM, we revise paragraph (e) ''Reason'' of the NPRM to include the words: ''Whilst there is no service history that indicates the BAe146 and Avro 146–RJ will be similarly affected. * * *''

We acknowledge BAE Systems' concerns, and partially agree with its requests. We agree that no accidents or incidents due to upper surface contamination have occurred on Model BAe 146 and Model Avro 146–RJ airplanes. We have revised the AD to include that acknowledgement in the Summary and in paragraph (e).

However, we disagree that a safety concern does not exist on the Model BAe 146 and Model Avro 146–RJ airplanes and therefore, by implication, that we should withdraw the NPRM.

Section 39.1 of the Federal Aviation Regulations (14 CFR 39.1) states:

''This part prescribes airworthiness directives that apply to aircraft * * * when—

(a) An unsafe condition exists in a product; and

(b) That condition is likely to exist or develop in other products of the same type design.''

The Model BAe 146 and Model Avro 146–RJ airplanes share common type design characteristics with airplanes that have been involved in takeoff accidents and incidents resulting from small amounts of wing leading edge or upper surface contamination. The accident and incident history shows that transport category turbojet airplanes without leading edge high lift devices have been involved in a number of takeoff accidents and incidents where undetected upper wing ice contamination has been cited as the probable cause or sole contributing factor. Although BAE Systems contends that differences between the wings of the Model BAe 146/Avro 146–RJ airplanes and the wings of the airplane types involved in the accidents and incidents make the Model BAe 146/Avro 146–RJ airplanes less susceptible to the effects of wing leading edge and upper surface contamination, BAE Systems has not supplied data that directly address the FAA's safety concern. We evaluated all relevant information, including information submitted by BAE Systems before and after issuance of the NPRM, and determined the unsafe condition is likely to exist or develop in Model BAe 146 and Model Avro 146–RJ airplanes.

BAE Systems' proposal to include advice in an expanded FCOM to explain the importance of a clean wing prior to takeoff, while commendable, is insufficient to address the potential unsafe condition. Mandatory tactile checks of the wing leading edges and upper surfaces in potential ground icing conditions are needed to address the potential unsafe condition, and advice provided in an FCOM is not mandatory. An airplane operating limitation provided in the AFM is necessary to ensure the tactile check is performed. Contrary to BAE Systems' assertion that their proposed FCOM approach is consistent with the action taken on some other regional airplane types, the only instances where similar operating limitations have not been instituted on transport category turbojet airplanes without leading edge high lift devices have been where the airplane manufacturer provided data showing that adequate safety margins would be retained for takeoffs with small amounts of undetected wing upper surface contamination.

For these reasons we do not find it necessary to withdraw the NPRM and we have not changed the AD in this regard. However, under the provisions of paragraph (g)(1) of the AD, we will consider requests for approval of an alternative method of compliance if sufficient data are submitted to substantiate that the alternative method would provide an acceptable level of safety.

**Request to Revise Number of Airplanes of U.S. Registry**

BAE Systems states that, although the ''Costs of Compliance'' section gives realistic costs for revising the AFM, it gives an incorrect number of airplanes of U.S. Registry. The NPRM states that there is only one affected airplane on the U.S. Register; BAE Systems understands that the FAA registry currently shows up to 25 examples of the affected airplane types.

We agree with BAE systems that there are additional U.S.-registered airplanes affected by this AD. A detailed review shows that several airplanes that appear in certain databases to be U.S.-registered are instead registered in other countries. Certain other airplanes have been scrapped. Therefore, although there are not 25 U.S.-registered airplanes, we do agree that there is more than 1 airplane of U.S. registry. Therefore, we have revised the Costs of Compliance to include the costs for the 10 airplanes that we estimate are on the U.S. Register.

**Request to Include Costs for Ongoing Actions**

BAE Systems also states that the ''Costs of Compliance'' section excludes any assessment of the ongoing cost to operators for the time taken to conduct the visual and tactile pre-flight inspections. BAE Systems notes that access to the high wings on these airplanes requires a tall ladder and that the inspection will take approximately 30 minutes. BAE Systems estimates that the conditions where tactile checks would be required could exist up to 60 days per year, depending on the operator's geographical location and route structure, which could cause U.S. operators to incur up to 240 additional work hours per airplane per year.

We disagree with adding costs for the pre-flight check to the AD. We recognize that when accomplishing the requirements of any AD, operators might incur costs in addition to the direct costs that are reflected in the cost analysis presented in the AD preamble. However, the cost analysis in AD rulemaking actions typically does not include these incidental costs.

In the case of this AD, for example, the requirements are to revise the AFM to include certain information. Further, because ADs require specific actions to address specific unsafe conditions, they appear to impose costs that would not otherwise be borne by operators. However, because of the general obligation of operators to maintain and operate their airplanes in an airworthy condition, this appearance is deceptive. Attributing those costs solely to the issuance of this AD is unrealistic because, in the interest of maintaining and operating safe airplanes, prudent operators would accomplish the required actions even if they were not required to do so by the AD.

We have not changed the AD in this regard.

**Explanation of Change to Summary**

We have revised the Summary to clarify that not all airplanes are equipped with a stall protection system (by using the word ''a'' instead of ''the''). We have also clarified that the affected airplanes are transport category turbojet airplanes without leading edge high lift devices, and therefore may be similarly sensitive to small amounts of wing contamination.

**Conclusion**

We reviewed the available data, including the comments received, and determined that air safety and the public interest require adopting the AD with the change described previously. We determined that this change will not increase the economic burden on any operator or increase the scope of the AD.

**Costs of Compliance**

This AD affects about 10 products of U.S. registry. We estimate that it takes about 1 work-hour per product to comply with this AD. The average labor rate is $80 per work-hour. Based on these figures, we estimate the cost of the AD on U.S. operators to be $800, or $80 per product.

**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.

We are 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

We determined that 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) Is not a ''significant rule'' under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); 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.

We prepared a regulatory evaluation of the estimated costs to comply with this AD and placed it in the AD Docket.

### Examining the AD Docket

You may examine the AD docket on the Internet at *http://www.regulations.gov*; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains the NPRM, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone (800) 647–5527) is in the **ADDRESSES** section. Comments will be available in the AD docket shortly after receipt.

### List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, 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 AD:

**2008–10–05 BAE Systems (Operations) Limited (Formerly British Aerospace Regional Aircraft):** Amendment 39–15511. Docket No. FAA–2007–0371; Directorate Identifier 2007–NM–269–AD.

**Effective Date**

(a) This airworthiness directive (AD) becomes effective June 10, 2008.

**Affected ADs**

(b) None.

**Applicability**

(c) This AD applies to all BAE Systems (Operations) Limited Model BAe 146–100A, –200A, and –300A series airplanes, certificated in any category; and all Model Avro 146–RJ70A, 146–RJ85A, and 146–RJ100A airplanes, certificated in any category.

**Subject**

(d) Air Transport Association (ATA) of America Code 30: Ice and Rain Protection.

**Reason**

(e) This AD results from service history of incidents and accidents involving transport category turbojet airplanes without leading edge high lift devices, that shows that even small amounts of frost, ice, snow, or slush on the wing leading edges or forward upper wing surfaces can cause an adverse change in the stall speeds and stall characteristics, and can negate the protection provided by a stall protection system. While there have been no accidents or incidents related to wing contamination associated with the BAE Systems (Operations) Limited Model BAe 146 and Model Avro 146–RJ airplanes, these airplanes are also transport category turbojet airplanes without leading edge high lift devices, and therefore may be similarly sensitive to small amounts of wing contamination. We are issuing this AD to prevent possible loss of control on takeoff resulting from even small amounts of frost, ice, snow, or slush on the wing leading edges or forward upper wing surfaces.

**Actions and Compliance**

(f) Within 14 days after the effective date of this AD, revise the Limitations Section of the Airplane Flight Manual (AFM) to include the following statement. This may be done by inserting a copy of this AD in the AFM.

''1. Takeoff is prohibited with frost, ice, snow, or slush adhering to the wings, control surfaces, engine inlets, or other critical surfaces.

2. A visual and tactile (hand on surface) check of the wing leading edge and the wing upper surface must be performed to ensure the wing is free from frost, ice, snow, or slush when the outside air temperature is less than 42 degrees F (6 degrees C), or if it cannot be ascertained that the wing fuel temperature is above 32 degrees F (0 degrees C); and

a. There is visible moisture (rain, drizzle, sleet, snow, fog, etc.) present; or

b. Water is present on the wing; or

c. The difference between the dew point and the outside air temperature is 5 degrees F (3 degrees C) or less; or

d. The atmospheric conditions have been conducive to frost formation.''

**Note 1:** When a statement identical to that in paragraph (f) of this AD has been included in the general revisions of the AFM, the general revisions may be inserted into the AFM, and the copy of this AD may be removed from the AFM.

**Other FAA AD Provisions**

(g) The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Branch, Transport Airplane Directorate, ANM–116, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Todd Thompson, Aerospace Engineer, International Branch, ANM–116, Transport Airplane Directorate, FAA, 1601 Lind Avenue, SW., Renton, Washington 98057–3356; telephone (425) 227–1175; fax (425) 227–1149. Before using any approved AMOC on any airplane to which the AMOC applies, notify your appropriate principal inspector (PI) in the FAA Flight Standards District Office (FSDO), or lacking a PI, your local FSDO.

(2) Airworthy Product: For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

(3) Reporting Requirements: For any reporting requirement in this AD, under the provisions of the Paperwork Reduction Act, the Office of Management and Budget (OMB) has approved the information collection requirements and has assigned OMB Control Number 2120–0056.

**Related Information**

(h) None.

**Material Incorporated by Reference**

(i) None.

Issued in Renton, Washington, on April 8, 2008.

**Ali Bahrami,**

*Manager, Transport Airplane Directorate, Aircraft Certification Service.*

[FR Doc. E8–9876 Filed 5–5–08; 8:45 am]

BILLING CODE 4910–13–P

## DEPARTMENT OF HOMELAND SECURITY

## Coast Guard

## 33 CFR Part 117

**[Docket No. USCG–2007–0043]**

**RIN 1625–AA09**

## Drawbridge Operation Regulations; Arkansas Waterway, Little Rock, AR, Operation Change

**AGENCY:** Coast Guard, DHS.

**ACTION:** Final rule.

**SUMMARY:** The Coast Guard is revising the drawbridge operations for the Baring Cross Railroad Drawbridge across the Arkansas Waterway at Mile 119.6 at Little Rock, Arkansas, to reflect the actual procedures currently being followed. The revised regulation accurately depicts where the drawbridge operator is located and that the bridge, which is remotely operated, is equipped with a Photoelectric Boat Detection System.

**DATES:** This rule is effective on June 5, 2008.

**ADDRESSES:** Comments and related materials received from the public, as well as documents indicated in this preamble as being available in the docket, are part of docket USCG–2007–0043 and are available online at *http://www.regulations.gov.* This material is also available for inspection or copying at two locations: the Docket Management Facility (M–30), U.S. Department of Transportation, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue, SE., Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays and the COMMANDER (dwb), Eighth Coast Guard District Bridge Branch, 1222 Spruce Street, Room 2.107f, St. Louis, MO 63103–2832, between 8 a.m. and 4 p.m., Monday through Friday, except Federal holidays.

**FOR FURTHER INFORMATION CONTACT:** If you have questions on this rule, call Mr. Roger K. Wiebusch, Bridge Administrator, (314) 269–2378. If you have questions on viewing the docket, call Renee V. Wright, Program Manager, Docket Operations, telephone 202–366–9826.

**SUPPLEMENTARY INFORMATION:**

## Regulatory Information

On January 9, 2008, we published a notice of proposed rulemaking (NPRM) entitled Drawbridge Operation Regulations; Arkansas Waterway, Little Rock, AR in the **Federal Register** (73 FR 1565). We received no letters commenting on the proposed rule. No public meeting was requested, and none was held.

## Background and Purpose

The Arkansas Waterway is a part of the McClellan-Kerr Arkansas River Navigation System. The System rises in the vicinity of Catoosa, Oklahoma, and embraces improved natural waterways and a canal to empty into the Mississippi River in southeast Arkansas. The Arkansas Waterway drawbridge operation regulations contained in 33 CFR 117.123(b)(1), states that any vessel requiring an opening of the draw of the Baring Cross Railroad Drawbridge, Mile 119.6, shall contact the remote drawbridge operator in North Little Rock, Arkansas. The Coast Guard has determined that the remote operation is, in fact, conducted from Union Pacific's Harriman Dispatch Center in Omaha, Nebraska and a regulation change is needed to accurately reflect the location. In addition, as indicated in the Coast Guard bridge permit, the bridge is required to have audio and visual aids to permit remote operation. A sentence stating that the bridge is equipped with a Photoelectric Boat Detection System will be added to 33 CFR 117.123(b)(1) to clarify this issue.

## Discussion of Comments and Changes

There were no comments to the proposed regulatory test.

## Regulatory Evaluation

This rule is not a ''significant regulatory action'' under section 3(f) of Executive Order 12866, Regulatory Planning and Review, and does not require an assessment of potential costs and benefits under section 6(a)(3) of that Order. The Office of Management and Budget has not reviewed it under that Order.

We expect the economic impact of this rule on commercial traffic operating on the Arkansas Waterway to be so minimal that a full Regulatory Evaluation is unnecessary. The operating procedures are already in place at the Baring Cross Railroad Drawbridge, Mile 119.6, and the changes to the CFR documents the procedures.

## Small Entities

Under the Regulatory Flexibility Act (5 U.S.C. 601–612), we have considered whether this proposed rule would have a significant economic impact on a substantial number of small entities. 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. This rule is neutral to all business entities since it only clarifies how the bridge is operated and the bridge is still required to open on demand for vessels.

## Assistance for Small Entities

Under section 213(a) of the Small Business Regulatory Enforcement Fairness Act of 1996 (Pub. L. 104–121), we offered to assist small entities in understanding the rule so that they could better evaluate its effects on them and participate in the rulemaking process.

## 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).

## Federalism

A rule has implications for federalism under Executive Order 13132, Federalism, if it has a substantial direct effect on State or local governments and would either preempt State law or impose a substantial direct cost of compliance on them. We have analyzed this rule under that Order and have determined that it does not have implications for federalism.

## 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 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.

## Taking of Private Property

This rule will not effect a taking of private property or otherwise have taking implications under Executive Order 12630, Governmental Actions and Interference with Constitutionally Protected Property Rights.

## Civil Justice Reform

This rule meets applicable standards in sections 3(a) and 3(b)(2) of Executive Order 12988, Civil Justice Reform, to minimize litigation, eliminate ambiguity, and reduce burden.

## Protection of Children

We have analyzed this rule under Executive Order 13045, Protection of Children from Environmental Health Risks and Safety Risks. This rule is not an economically significant rule and would not create an environmental risk to health or risk to safety that might disproportionately affect children.

## Indian Tribal Governments

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.

**Energy Effects**

We have analyzed this rule under Executive Order 13211, Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use. We have determined that it is not a ''significant energy action'' under that order because it is not a ''significant regulatory action'' under Executive Order 12866 and is not likely to have a significant adverse effect on the supply, distribution, or use of energy. The Administrator of the Office of Information and Regulatory Affairs has not designated it as a significant energy action. Therefore, it does not require a Statement of Energy Effects under Executive Order 13211.

**Technical Standards**

The National Technology Transfer and Advancement Act (NTTAA) (15 U.S.C. 272 note) directs agencies to use voluntary consensus standards in their regulatory activities unless the agency provides Congress, through the Office of Management and Budget, with an explanation of why using these standards would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., specifications of materials, performance, design, or operation; test methods; sampling procedures; and related management systems practices) that are developed or adopted by voluntary consensus standards bodies.

This rule does not use technical standards. Therefore, we did not consider the use of voluntary consensus standards.

**Environment**

We have analyzed this rule under Commandant Instruction M16475.1D which guides the Coast Guard in complying with the National Environmental Policy Act of 1969 (NEPA) (42 U.S.C. 4321–4370f), and have concluded that there are no factors in this case that would limit the use of a categorical exclusion under section 2.B.2 of the Instruction. Therefore, this rule is categorically excluded, under figure 2–1, paragraph (32)(e) of the Instruction, from further environmental documentation.

Under figure 2–1, paragraph (32)(e), of the Instruction, an ''Environmental Analysis Check List'' and a ''Categorical Exclusion Determination'' are not required for this rule.

**List of Subjects in 33 CFR Part 117**

Bridges.

**Words of Issuance and Regulatory Text**

■ 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; Department of Homeland Security Delegation No. 0170.1.

■ 2. Amend § 117.123 by revising paragraph(b)(1) as follows:

**§ 117.123 Arkansas Waterway.**

(b) * * *

(1) Normal Flow Procedures. Any vessel which requires an opening of the draw of this bridge shall establish contact by radiotelephone with the remote drawbridge operator on VHF–FM Channel 13 in Omaha, Nebraska. The remote drawbridge operator will advise the vessel whether the requested span can be immediately opened and maintain constant contact with the vessel until the requested span has opened and the vessel passage has been completed. The bridge is equipped with a Photoelectric Boat Detection System to prevent the span from lowering if there is an obstruction under the span. If the drawbridge cannot be opened immediately, the remote drawbridge operator will notify the calling vessel and provide an estimated time for a drawbridge opening.

Dated: April 17, 2008.

**J.H. Korn,**

*Captain U.S. Coast Guard, Commander 8th Coast Guard District, Acting.*

[FR Doc. E8–9818 Filed 5–5–08; 8:45 am]

BILLING CODE 4910–15–P

## DEPARTMENT OF VETERANS AFFAIRS

### 38 CFR Part 3

**RIN 2900–AM17**

### Typographical Error: Notice and Assistance Requirements; Correction

**AGENCY:** Department of Veterans Affairs.

**ACTION:** Final rule; correction.

**SUMMARY:** The Department of Veterans Affairs (VA) published a document in the **Federal Register** of April 30, 2008, revising its regulation governing VA's duty to provide a claimant with notice of the information and evidence necessary to substantiate a claim and VA's duty to assist a claimant in obtaining the evidence necessary to substantiate the claim. The document inadvertently contained a typographical error, and this document corrects that error.

**DATES:** *Effective Date:* This correction is effective May 6, 2008.

**FOR FURTHER INFORMATION CONTACT:** Maya Ferrandino, Consultant, Regulations Staff (211D), Compensation and Pension Service, Veterans Benefits Administration, Department of Veterans Affairs, 810 Vermont Avenue, NW., Washington, DC 20420, (727) 319–5847.

**SUPPLEMENTARY INFORMATION:** On April 30, 2008, VA published in the **Federal Register** (73 FR 23353) a document revising its regulation regarding VA's duty to provide a claimant with notice of the information and evidence necessary to substantiate a claim and VA's duty to assist a claimant in obtaining the evidence necessary to substantiate the claim. In the rule, one typographical error was inadvertently published. The reason for the typographical error is that, between the publication of the proposed rule and the publication of the final rule, VA had redesignated the relevant provision of its procedures manual from ''c'' to ''d.'' This document corrects that error.

In FR Doc. E8–9454 published on April 30, 2008 (73 FR 23353), make the following correction. On page 23355, in the second column, in the first sentence of the third full paragraph, the VA Manual M21–1MR paragraph reference is corrected by removing ''I.1.B.3.c'' and adding in its place ''I.1.B.3.d''.

Approved: April 30, 2008.

**Robert C. McFetridge,**

*Assistant to the Secretary for Regulation Policy and Management.*

[FR Doc. E8–9966 Filed 5–5–08; 8:45 am]

BILLING CODE 8320–01–P

## ENVIRONMENTAL PROTECTION AGENCY

### 40 CFR Part 52

**[Docket No. EPA–R02–OAR–2008–0005; FRL–8562–1]**

### Approval and Promulgation of Implementation Plans; Revised $PM_{2.5}$ Motor Vehicle Emissions Budgets; State of New Jersey

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Final rule.

**SUMMARY:** The Environmental Protection Agency (EPA) is approving a state implementation plan revision submitted by the State of New Jersey. This revision updates the 2009 $PM_{2.5}$ motor vehicle emissions budgets for Mercer County (for direct $PM_{2.5}$ and $NO_X$, a precursor), located within the New Jersey portion of the New York-Northern New Jersey-Long Island, NY-NJ-CT, $PM_{2.5}$ nonattainment area. The intended effect of this rulemaking is to approve budgets that will be used to determine transportation conformity.

**DATES:** This rule will be effective June 5, 2008.

**ADDRESSES:** Copies of the State submittals are available at the following addresses for inspection during normal business hours: Environmental Protection Agency, Region 2 Office, Air Programs Branch, 290 Broadway, 25th Floor, New York, New York 10007–1866.

New Jersey Department of Environmental Protection, Public Access Center, 401 East State Street, 1st Floor, Trenton, New Jersey 08625.

**FOR FURTHER INFORMATION CONTACT:** Matthew Laurita, *laurita.matthew@epa.gov* at the Environmental Protection Agency, Region 2 Office, Air Programs Branch, 290 Broadway, 25th Floor, New York, NY 10007–1866, telephone number (212) 637–3895, fax number (212) 637–3901.

**SUPPLEMENTARY INFORMATION:**

**Table of Contents**

I. Analysis of the State's Submittal
II. Comments on the Proposed Rulemaking
III. Final EPA Action
IV. Statutory and Executive Order Reviews

## I. Analysis of the State's Submittal

On December 17, 2007, New Jersey submitted a proposed state implementation plan (SIP) revision to EPA updating the existing motor vehicle emissions budgets (''budgets'') for the Mercer County, New Jersey portion of the New York-Northern New Jersey-Long Island, NY-NJ-CT, $PM_{2.5}$ nonattainment area ($PM_{2.5}$ is composed of airborne particles generally less than or equal to 2.5 micrometers in diameter). At the time of the submittal, New Jersey requested that EPA parallel process the SIP revision. New Jersey subsequently held a public hearing on January 28, 2008, and accepted public comments until January 31, 2008. On February 25, 2008, New Jersey submitted a final SIP revision to EPA with no substantive changes from the December 17, 2007 submittal. For more information on New Jersey's December 17, 2007 submittal, please see EPA's March 5, 2008, Notice of Proposed Rulemaking (73 FR 11846).

When EPA approved New Jersey's initial $PM_{2.5}$ budgets (71 FR 38770, July 10, 2006), we inadvertently did not revise 40 Code of Federal Regulations (CFR) part 52 to include the approved budgets. In this action we are updating 40 CFR part 52 to reflect both the July 10, 2006, final rulemaking and today's final rulemaking.

## II. Comments on the Proposed Rulemaking

EPA proposed approval of New Jersey's SIP revision on March 5, 2008 (73 FR 11846). The comment period closed on April 4, 2008. EPA did not receive any comments.

## III. Final EPA Action

EPA is approving revisions to the 2009 $PM_{2.5}$ motor vehicle emissions budgets for Mercer County, New Jersey. The revised budgets are 108 tons per year for direct $PM_{2.5}$ and 5,056 tons per year for $NO_X$. These revised motor vehicle emissions budgets supersede the previous 2009 budgets and are to be used by the Delaware Valley Regional Planning Commission in making transportation conformity determinations on or after the effective date of this Final Rulemaking.

## IV. Statutory and Executive Order Reviews

Under Executive Order 12866 (58 FR 51735, October 4, 1993), this action is not a ''significant regulatory action'' and therefore is not subject to review by the Office of Management and Budget. For this reason, this action is also not subject to Executive Order 13211, ''Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use'' (66 FR 28355, May 22, 2001). This action merely approves state law as meeting Federal requirements and imposes no additional requirements beyond those imposed by state law. Accordingly, the Administrator certifies that this rule will not have a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*). Because this rule approves pre-existing requirements under state law and does not impose any additional enforceable duty beyond that required by state law, it 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).

This rule also does not have tribal implications because it will 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, as specified by Executive Order 13175 (65 FR 67249, November 9, 2000). This action also does not have Federalism implications because it 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, as specified in Executive Order 13132 (64 FR 43255, August 10, 1999). This action merely approves a state rule implementing a Federal standard, and does not alter the relationship or the distribution of power and responsibilities established in the CAA. This rule also is not subject to Executive Order 13045 ''Protection of Children from Environmental Health Risks and Safety Risks'' (62 FR 19885, April 23, 1997), because it is not economically significant.

In reviewing SIP submissions, EPA's role is to approve state choices, provided that they meet the criteria of the CAA. In this context, in the absence of a prior existing requirement for the State to use voluntary consensus standards (VCS), EPA has no authority to disapprove a SIP submission for failure to use VCS. It would thus be inconsistent with applicable law for EPA, when it reviews a SIP submission, to use VCS in place of a SIP submission that otherwise satisfies the provisions of the CAA. Thus, the requirements of section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) do not apply. This rule does not impose an information collection burden under the provisions of the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*).

## List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Intergovernmental relations, Nitrogen dioxide, Particulate matter, Reporting and recordkeeping requirements.

Dated: April 24, 2008.

**Alan J. Steinberg,**

*Regional Administrator, Region 2.*

■ Part 52, chapter I, title 40 of the Code of Federal Regulations is amended as follows:

## PART 52—[AMENDED]

■ 1. The authority citation for part 52 continues to read as follows:

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

## Subpart FF—New Jersey

■ 2. Section 52.1602 is added to read as follows:

### § 52.1602 Control strategy and regulations: $PM_{2.5}$.

(a) Approval—On May 18, 2006, New Jersey submitted an early $PM_{2.5}$ implementation plan to set motor vehicle emissions budgets for the New Jersey portion of the New York-Northern New Jersey-Long Island, NY-NJ-CT, $PM_{2.5}$ nonattainment area. The budgets were allocated by metropolitan planning organization as follows: North Jersey Transportation Planning Authority: 1,207 tons per year of direct $PM_{2.5}$ and 61,676 tons per year of $NO_X$; Delaware Valley Regional Planning Commission: 89 tons per year of direct $PM_{2.5}$ and 4,328 tons per year of $NO_X$.

(b) Approval—On February 25, 2008, New Jersey submitted a revision to its early $PM_{2.5}$ implementation plan to revise the motor vehicle emissions budgets for the Mercer County, New Jersey portion of the New York-Northern New Jersey-Long Island, NY-NJ-CT, $PM_{2.5}$ nonattainment area. The revised budgets, applicable to the Delaware Valley Regional Planning Commission, are as follows: 108 tons per year of direct $PM_{2.5}$ and 5,056 tons per year of $NO_X$.

[FR Doc. E8–9819 Filed 5–5–08; 8:45 am]

BILLING CODE 6560–50–P

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## ENVIRONMENTAL PROTECTION AGENCY

## 40 CFR Parts 60, 61, 62, and 63

**[FRL–8563–1]**

## Change of Address for Submission of Certain Reports; Technical Correction

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Final rule; technical amendment.

**SUMMARY:** EPA is correcting the address for EPA Region VIII in General Provisions of EPA regulations. Certain EPA air pollution control regulations require submittal of notifications, reports, and other documents to the EPA regional office. This technical amendment updates and corrects the address for submitting such information to the EPA Region VIII office.

**DATES:** *Effective Date:* This document is effective June 5, 2008.

**FOR FURTHER INFORMATION CONTACT:** Laurie Ostrand, Air and Toxics Technical Enforcement Program, Environmental Protection Agency (EPA), Region 8, 1595 Wynkoop Street, Denver, Colorado 80202–1129, (303) 312–6437, *ostrand.laurie@epa.gov*.

**SUPPLEMENTARY INFORMATION:** Throughout this document, wherever ''we'' or ''our'' is used it means the EPA. Section 553 of the Administrative Procedures Act, 5 U.S.C. 553(b)(B), provides that, when an agency for good cause finds that notice and public procedures are impracticable, unnecessary or contrary to the public interest, the agency may issue a rule without providing notice and an opportunity for public comment. We have determined that there is good cause for making today's rule final without prior proposal and opportunity for comment because we are merely correcting EPA Region VIII's address. Thus notice and public procedure are unnecessary. We find that this constitutes good cause under 5 U.S.C. 553(b)(B).

Specifically, EPA is correcting the address for EPA Region VIII in the General Provisions of 40 CFR parts 60, 61, 62, and 63. Certain provisions of 40 CFR parts 60, 61, 62, and 63 regulations require the submittal of notifications, reports, and other documents to the EPA regional office. This technical amendment updates and corrects the address for submitting such information to the EPA Region VIII office.

### Statutory and Executive Order Review

Under Executive Order 12866 (58 FR 51735, October 4, 1993), this action is not a ''significant regulatory action'' and is therefore not subject to review by the Office of Management and Budget. This rule is not subject to Executive Order 13211, ''Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use'' (66 FR 28355, May 22, 2001) because it is not a significant regulatory action under Executive Order 12866. Because the agency has made a ''good cause'' finding that this action is not subject to notice-and-comment requirements under the Administrative Procedure Act or any other statute as indicated in the Supplementary Information section above, it is not subject to the regulatory flexibility provisions of the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*), or to sections 202 and 205 of the Unfunded Mandates Reform Act of 1995 (UMRA) (Pub. L. 104–4, 109 Stat. 48 (1995)). In addition, this action does not significantly or uniquely affect small governments or impose a significant intergovernmental mandate, as described in sections 203 and 204 of UMRA. This rule also 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, as specified by Executive Order 13175 (65 FR 67249, November 9, 2000), nor will it 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, as specified in Executive Order 13132 (64 FR 43255, August 10, 1999). This rule also is not subject to Executive Order 13045 (62 FR 19885, April 23, 1997), because it is not economically significant. This technical correction action does not involve technical standards; thus the requirements of section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) do not apply. The rule also does not involve special consideration of environmental justice related issues as required by Executive Order 12898 (59 FR 7629, February 16, 1994). In issuing this rule, EPA has taken the necessary steps to eliminate drafting errors and ambiguity, minimize potential litigation, and provide a clear legal standard for affected conduct, as required by section 3 of Executive Order 12988 (61 FR 4729, February 7, 1996). EPA has complied with Executive Order 12630 (53 FR 8859, March 15, 1998) by examining the takings implications of the rule in accordance with the ''Attorney General's Supplemental Guidelines for the Evaluation of Risk and Avoidance of Unanticipated Takings'' issued under the Executive Order. This rule does not impose an information collection burden under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*).

The Congressional Review Act (CRA) (5 U.S.C. 801 *et seq.*), as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. Section 808 allows the issuing agency to make a rule effective sooner than otherwise provided by the CRA if the agency makes a good cause finding that notice and public procedure is impracticable,

unnecessary or contrary to the public interest. This determination must be supported by a brief statement. 5 U.S.C. 808(2). As stated previously, EPA has made such a good cause finding, including the reasons therefore, and established an effective date of June 5, 2008. EPA will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. These corrections to the General Provisions of 40 CFR part 63 is not a ''major rule'' as defined by 5 U.S.C. 804(2).

**List of Subjects in 40 CFR Parts 60, 61, 62 and 63**

Environmental protection, Air pollution control, Reporting and recordkeeping requirements.

Dated: April 28, 2008.

**Carol Rushin,**

*Acting Regional Administrator, Region 8.*

■ 40 CFR parts 60, 61, 62, and 63 are amended as follows:

## PART 60—[AMENDED]

■ 1. The authority citation for part 60 continues to read as follows:

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

### Subpart A—General Provisions

■ 2. Section 60.4 is amended by revising the address for Region VIII in paragraph (a) to read as follows:

**§ 60.4 Address.**

(a) * * *

Region VIII (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming) Director, Air and Toxics Technical Enforcement Program, Office of Enforcement, Compliance and Environmental Justice, Mail Code 8ENF–AT, 1595 Wynkoop Street, Denver, CO 80202–1129.

* * * * *

## PART 61—[AMENDED]

■ 3. The authority citation for part 61 continues to read as follows:

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

### Subpart A—General Provisions

■ 4. Section 61.04 is amended by revising the address for Region VIII in paragraph (a) to read as follows:

**§ 61.04 Address.**

(a) * * *

Region VIII (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming) Director, Air and Toxics Technical Enforcement Program, Office of Enforcement, Compliance and Environmental Justice, Mail Code 8ENF–AT, 1595 Wynkoop Street, Denver, CO 80202–1129.

* * * * *

## PART 62—[AMENDED]

■ 5. The authority citation for part 62 continues to read as follows:

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

### Subpart A—General Provisions

■ 6. In § 62.10 the table is amended by revising the entry for Region VIII to read as follows:

**§ 62.10 Submission to Administrator.**

* * * * *

| Region and jurisdiction covered | Address |
|---|---|
| * * * * * * * | |
| VIII—Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming | Director, Air Program, Office of Partnerships and Regulatory Assistance, Mail Code 8P–AR, 1595 Wynkoop Street, Denver, CO 80202–1129 |
| * * * * * * * | |

## PART 63—[AMENDED]

■ 7. The authority citation for part 63 continues to read as follows:

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

### Subpart A—General Provisions

■ 8. Section 63.13 is amended by revising the address for Region VIII in paragraph (a) to read as follows:

**§ 63.13 Addresses of State air pollution control agencies and EPA Regional Offices.**

(a) * * *

EPA Region VIII (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming) Director, Air and Toxics Technical Enforcement Program, Office of Enforcement, Compliance and Environmental Justice, Mail Code 8ENF–AT, 1595 Wynkoop Street, Denver, CO 80202–1129.

* * * * *

[FR Doc. E8–9963 Filed 5–5–08; 8:45 am]

BILLING CODE 6560–50–P

## DEPARTMENT OF HEALTH AND HUMAN SERVICES

### Centers for Medicare & Medicaid Services

### 42 CFR Part 412

**[CMS–1493–IFC]**

**RIN 0938–AP33**

## Medicare Program; Changes for Long-Term Care Hospitals Required by Certain Provisions of the Medicare, Medicaid, SCHIP Extension Act of 2007: 3-Year Delay in the Application of Payment Adjustments for Short Stay Outliers and Changes to the Standard Federal Rate

**AGENCY:** Centers for Medicare & Medicaid Services (CMS), HHS.

**ACTION:** Interim final rule with comment period.

**SUMMARY:** This interim final rule with comment period implements certain provisions of section 114 of the Medicare, Medicaid, and SCHIP Extension Act of 2007 relating to long term care hospitals (LTCHs). These provisions include a 3-year delay in the application of certain provisions of the payment adjustment for short-stay outliers and revisions to the RY 2008 standard Federal rate.

**DATES:** *Effective date:* The provisions of § 412.1 and § 412.500 are effective June 5, 2008. The provisions of § 412.529(c)(1) through (c)(3) are effective on December 29, 2007. In accordance with section 1871(e)(1)(A)(i) and (ii) of the Social Security Act (the Act), the Secretary has determined that retroactive application of the provisions of § 412.529(c)(1) through (c)(3) is necessary to comply with the statute and that failure to apply the changes retroactively would be contrary to public interest. Also, in accordance with section 1871(e)(1)(A)(ii) of the Act, the technical corrections to § 412.529(f)

(redesignated from § 412.529(c)(4)) are effective on December 29, 2007. In accordance with section 1871(e)(1)(A)(ii) of the Act, the Secretary has determined that failure to apply the technical corrections in § 412.529(f) retroactively would be contrary to public interest. Additionally, in accordance with section 1871(e)(1)(A)(i) and (ii) of the Act, the provisions of § 412.523 are effective April 1, 2008. Also, in accordance with section 1871(e)(1)(A)(ii) of the Act, the fixed loss-amount provision in section II.D.2. of this preamble which revises the fixed-loss amount for discharge occurring on or after April 1, 2008, and through June 30, 2008, is effective April 1, 2008.

*Comment date:* To be assured consideration, comments must be received at one of the addresses provided below, no later than 5 p.m. on June 30, 2008.

**ADDRESSES:** In commenting, please refer to file code CMS–1493–IFC. Because of staff and resource limitations, we cannot accept comments by facsimile (FAX) transmission.

You may submit comments in one of four ways (please choose only one of the ways listed):

1. *Electronically.* You may submit electronic comments on this regulation to *http://www.regulations.gov.* Follow the instructions for ''Comment or Submission'' and enter the filecode to find the document accepting comments.

2. *By regular mail.* You may mail written comments (one original and two copies) to the following address ONLY: Centers for Medicare & Medicaid Services, Department of Health and Human Services, Attention: CMS–1493–IFC, P.O. Box 8013, Baltimore, MD 21244–8013.

Please allow sufficient time for mailed comments to be received before the close of the comment period.

3. *By express or overnight mail.* You may send written comments (one original and two copies) to the following address ONLY: Centers for Medicare & Medicaid Services, Department of Health and Human Services, Attention: CMS–1493–IFC, Mail Stop C4–26–05, 7500 Security Boulevard, Baltimore, MD 21244–1850.

4. *By hand or courier.* If you prefer, you may deliver (by hand or courier) your written comments (one original and two copies) before the close of the comment period to either of the following addresses:

a. Room 445–G, Hubert H. Humphrey Building, 200 Independence Avenue, SW., Washington, DC 20201.

(Because access to the interior of the HHH Building is not readily available to persons without Federal Government identification, commenters are encouraged to leave their comments in the CMS drop slots located in the main lobby of the building. A stamp-in clock is available for persons wishing to retain a proof of filing by stamping in and retaining an extra copy of the comments being filed.)

b. 7500 Security Boulevard, Baltimore, MD 21244–1850.

If you intend to deliver your comments to the Baltimore address, please call telephone number (410) 786–7195 in advance to schedule your arrival with one of our staff members.

Comments mailed to the addresses indicated as appropriate for hand or courier delivery may be delayed and received after the comment period.

*Submission of comments on paperwork requirements.* You may submit comments on this document's paperwork requirements by following instructions at the end of the ''Collection of Information Requirements'' section in this document.

For information on viewing public comments, see the beginning of the **SUPPLEMENTARY INFORMATION** section.

**FOR FURTHER INFORMATION CONTACT:** Tzvi Hefter, (410) 786–4487, General information. Michele Hudson, (410) 786–5490, General information. Elizabeth Truong, (410) 786–6005, Federal rate update and short stay outlier.

**SUPPLEMENTARY INFORMATION:**

*Inspection of Public Comments:* All comments received before the close of the comment period are available for viewing by the public, including any personally identifiable or confidential business information that is included in a comment. We post all comments received before the close of the comment period on the following Web site as soon as possible after they have been received: *http://www.regulations.gov.* Follow the search instructions on the Web site to view public comments.

Comments received timely will also be available for public inspection as they are received, generally beginning approximately 3 weeks after publication of a document, at the headquarters of the Centers for Medicare & Medicaid Services, 7500 Security Boulevard, Baltimore, Maryland 21244, Monday through Friday of each week from 8:30 a.m. to 4 p.m. To schedule an appointment to view public comments, phone 1–800–743–3951.

## I. Background

### *A. Legislative and Regulatory Authority*

Section 123 of the Medicare, Medicaid, and SCHIP [State Children's Health Insurance Program] Balanced Budget Refinement Act of 1999 (BBRA) (Pub. L. 106–113), as amended by section 307(b) of the Medicare, Medicaid, and SCHIP Benefits Improvement and Protection Act of 2000 (BIPA) (Pub. L. 106–554), provides for payment for both the operating and capital-related costs of hospital inpatient stays in long-term care hospitals (LTCHs) under Medicare Part A based on prospectively set rates. The Medicare prospective payment system (PPS) for LTCHs applies to hospitals described in section 1886(d)(1)(B)(iv) of the Social Security Act (the Act), effective for cost reporting periods beginning on or after October 1, 2002.

Section 1886(d)(1)(B)(iv)(I) of the Act defines a LTCH as ''a hospital which has an average inpatient length of stay (as determined by the Secretary) of greater than 25 days.'' Section 1886(d)(1)(B)(iv)(II) of the Act also provides an alternative definition of LTCHs: specifically, a hospital that first received payment under section 1886(d) of the Act in 1986 and has an average inpatient length of stay (LOS) (as determined by the Secretary of Health and Human Services (the Secretary)) of greater than 20 days and has 80 percent or more of its annual Medicare inpatient discharges with a principal diagnosis that reflects a finding of neoplastic disease in the 12-month cost reporting period ending in fiscal year (FY) 1997.

Section 307(b)(1) of the BIPA, among other things, mandates that the Secretary shall examine, and may provide for, adjustments to payments under the LTCH PPS, including adjustments to diagnosis related group (DRG) weights, area wage adjustments, geographic reclassification, outliers, updates, and a disproportionate share adjustment.

In the August 30, 2002 **Federal Register**, we issued a final rule that implemented the LTCH PPS authorized under BBRA and BIPA (67 FR 55954). This system uses information from LTCH patient records to classify patients into distinct long-term care diagnosis-related groups (LTC–DRGs) based on clinical characteristics and expected resource needs. Payments are calculated for each LTC–DRG and provisions are made for appropriate payment adjustments. Payment rates under the LTCH PPS are updated annually and published in the **Federal Register**.

In the August 30, 2002 final rule, we also presented an in-depth discussion of the LTCH PPS, including the patient classification system, relative weights, payment rates, additional payments (short-stay outliers), and the budget neutrality requirements mandated by section 123 of the BBRA. The same final rule that established regulations for the LTCH PPS under 42 CFR part 412, subpart O, also contained LTCH provisions related to covered inpatient services, limitation on charges to beneficiaries, medical review requirements, furnishing of inpatient hospital services directly or under arrangement, and reporting and recordkeeping requirements. We refer readers to the August 30, 2002 final rule for a comprehensive discussion of the research and data that supported the establishment of the LTCH PPS (67 FR 55954).

In the June 6, 2003 **Federal Register**, we published a final rule that set forth the FY 2004 annual update of the payment rates for the Medicare PPS for inpatient hospital services furnished by LTCHs (68 FR 34122). It also changed the annual period for which the payment rates are effective. The annual updated rates are now effective from July 1 through June 30 instead of from October 1 through September 30. We refer to the July through June time period as a ''long-term care hospital rate year'' (LTCH PPS rate year (RY)). In addition, we changed the publication schedule for the annual update to allow for an effective date of July 1. The payment amounts and factors used to determine the annual update of the LTCH PPS Federal rate are based on a LTCH PPS rate year. While the LTCH payment rate update is effective July 1, the annual update of the DRG classifications and relative weights for LTCHs are linked to the annual adjustments of the acute care hospital inpatient DRGs and are effective each October 1.

The most recent annual update to the LTCH PPS was presented in the RY 2008 LTCH PPS final rule (72 FR 26870 through 27029). In that final rule, among other things, we established a 0.71 percent update to the Federal rate for RY 2008, as well as revising the existing payment formula for certain short-stay outlier (SSO) cases and the establishment of a payment adjustment policy applicable to LTCH and LTCH satellite facility discharges that were admitted from hospitals that are not co-located with the LTCH or LTCH satellite facility and that exceed a certain percentage threshold. In addition, in the January 29, 2008 **Federal Register**, we presented the annual proposed rule for RY 2009. Among other things, this proposed rule presented a proposed update for RY 2009 and other proposed payment rate and policy changes.

On December 29, 2007 the Medicare, Medicaid, and SCHIP Extension Act (MMSEA) (Pub. L. 110–173) was enacted. Specifically, section 114 of MMSEA, entitled ''Long-term care hospitals,'' made a number of changes affecting payments to LTCHs for inpatient services. Several of the provisions of section 114 of MMSEA are discussed in this interim final rule with comment period.

*B. Criteria for Classification as a LTCH*

Under the existing regulations at § 412.23(e)(1) and (e)(2)(i), which implement section 1886(d)(1)(B)(iv)(I) of the Act, to qualify to be paid under the LTCH PPS, a hospital must have a provider agreement with Medicare and must have an average Medicare inpatient LOS of greater than 25 days. Alternatively, § 412.23(e)(2)(ii) states that for cost reporting periods beginning on or after August 5, 1997, a hospital that was first excluded from the PPS in 1986 and can demonstrate that at least 80 percent of its annual Medicare inpatient discharges in the 12-month cost reporting period ending in FY 1997 have a principal diagnosis that reflects a finding of neoplastic disease must have an average inpatient LOS for all patients, including both Medicare and non-Medicare inpatients, of greater than 20 days.

Section 412.23(e)(3) currently provides that, subject to the provisions of paragraphs (e)(3)(ii) through (e)(3)(iv) of this section, the average Medicare inpatient LOS, specified under § 412.23(e)(2)(i) is calculated by dividing the total number of covered and noncovered days of stay for Medicare inpatients (less leave or pass days; that is, days where the inpatient is not occupying a bed but has not been discharged) by the number of total Medicare discharges for the hospital's most recent complete cost reporting period. Currently, § 412.23 also provides that subject to the provisions of paragraphs (e)(3)(ii) through (e)(3)(iv) of this section, the average inpatient LOS specified under § 412.23(e)(2)(ii) is calculated by dividing the total number of days for all patients, including both Medicare and non-Medicare inpatients (less leave or pass days) by the number of total discharges for the hospital's most recent complete cost reporting period. The fiscal intermediaries (FIs) or Medicare Administrative Contractors (MACs) verify that LTCHs meet the average LOS requirements. We note that the inpatient days of a patient who is admitted to a LTCH without any remaining Medicare days of coverage, regardless of the fact that the patient is a Medicare beneficiary, will not be included in the above calculation. Because Medicare would not be paying for any of the patient's treatment, data on the patient's stay would not be included in the Medicare claims processing systems. As described in § 409.61, in order for both covered and noncovered days of a LTCH hospitalization to be included, a patient admitted to the LTCH must have at least 1 remaining-benefit day. (For a more detailed explanation, see the June 6, 2003 final rule (68 FR 34123).)

The FI's or MAC's determination of whether or not a hospital qualifies as an LTCH is based on the hospital's discharge data from the hospital's most recent complete cost reporting period as specified in § 412.23(e)(3) and is effective at the start of the hospital's next cost reporting period as specified in § 412.22(d). However, if the hospital does not meet the average LOS requirement as specified in § 412.23(e)(2)(i) and (ii), the hospital may provide the FI or MAC with data indicating a change in the ALOS by the same method for the period of at least 5 months of the immediately preceding 6-month period (69 FR 25676). Our interpretation of existing § 412.23(e)(3) is to allow hospitals to submit data using a period of at least 5 months of the most recent data from the immediately preceding 6-month period.

## II. Provisions of This Interim Final Rule With Comment Period

Section 114 of MMSEA made a number of changes affecting payments to long-term care hospitals (LTCHs) for inpatient services. This interim final rule with comment period will implement the following provisions affecting LTCH PPS payments:

- *Modification of payment adjustments to certain SSO cases.* Section 114(c)(3) of MMSEA specifies that the refinement of the SSO policy implemented in RY 2008 shall not apply for a 3-year period beginning with discharges occurring on or after December 29, 2007. Specifically, the fourth SSO payment option in § 412.529(c)(3)(i) shall not apply for a 3-year period, as discussed in section II.B. of this interim final rule with comment period.
- *Revision to the RY 2008 rate provision.* Section 114(e)(1) of MMSEA provides that the base rate for RY 2008 ''shall be the same as the base rate for discharges for the hospital occurring during the rate year ending in 2007.'' Furthermore, in accordance with section

114(e)(2) of MMSEA, the revised rate will not be applicable to discharges occurring on or after July 1, 2007 and before April 1, 2008. (See section II.C. of this interim final rule with comment period.)

We also note that section 114(c)(4) of MMSEA specifies that for a 3-year period beginning on December 29, 2007, the Secretary shall not make the one-time prospective adjustment to the LTCH PPS payment rates provided for in existing § 412.523(d)(3). Since under existing regulations the one-time prospective adjustment would have impacted the update to the standard Federal rate for RY 2009, we have addressed this provision in the LTCH PPS RY 2009 January 29, 2008 proposed rule (73 FR 5353 through 5360). While we did not propose the one-time prospective adjustment in the RY 2009 proposed rule, we provided a possible methodology for determining whether the one-time prospective adjustment would be warranted. We solicited comments on the methodology and indicated that we would take these comments into consideration in proposing to implement a one-time prospective adjustment on or after December 29, 2010, consistent with the requirements of section 114(c)(4) of MMSEA. Additionally, section 114(d) of MMSEA established a 3-year moratorium on the establishment and classification of new LTCHs, LTCH satellite facilities, and on any increase in beds in existing LTCHs and LTCH satellite facilities, with certain exceptions. Section 114(c)(1) and (2) of MMSEA established a 3-year delay in the application of certain payment policies which apply a payment adjustment for LTCH patients admitted from certain referring hospitals that exceed various percentage thresholds. These provisions will be addressed in a separate rulemaking.

We would also note that section 114 of MMSEA included additional provisions focusing on LTCHs not directly related to payment policy that are not in this interim final rule with comment period are as follows:

- Section 1861 of the Act is amended by adding a new paragraph (ccc) defining LTCHs.
- The Secretary is directed to conduct a study and submit a report to the Congress within 18 months after the date of enactment of MMSEA. The Secretary will conduct a study on the establishment of national LTCH facility and patient criteria.
- The Secretary is directed to provide an expanded review of medical necessity for LTCH admission and continued stay.

*A. Scope of the LTCH Regulations and Section 114 of MMSEA*

Section 114(e)(1) of MMSEA amended section 1886 of the Act by adding a new subsection m. New section 1886(m)(1) of the Act provides that for provisions related to the establishment and implementation of a prospective payment system for payments under this title for inpatient hospital services furnished by a long-term care hospital described in subsection (d)(1)(B)(iv) (see section 123 of BBRA and section 307(b) of BIPA.) In addition, it added new section 1886(m)(2) of the Act, which pertains to the standard Federal rate for RY 2008. We are revising our regulations at § 412.1(a)(4) and § 412.500, which contain the scope of the long-term care hospital regulations to reference the statutory authority provided by section 114 of MMSEA and to reference the amendment to section 1886 of the Act.

*B. Short Stay Outlier (SSO) Cases*

**1. Background**

In the RY 2003 LTCH PPS final rule (67 FR 55995), we established at § 412.529 a special payment policy for short-stay outlier (SSO) cases, SSO cases are cases with a covered LOS that is less than or equal to five-sixths of the geometric average LOS for each LTC–DRG. When we established the SSO policy, we explained that ''[a] short stay outlier case may occur when a beneficiary receives less than the full course of treatment at the LTCH before being discharged'' (67 FR 55995). Therefore, under the LTCH PPS, we implemented a special payment adjustment for SSO cases. Under the SSO policy established in the RY 2003 LTCH PPS final rule (67 FR 55995 through 56000), for LTCH PPS discharges with a covered LOS of up to and including five-sixths the geometric average LOS for the LTC–DRG, we adjusted the per discharge payment under the LTCH PPS by the least of the following three options: (1) 120 percent of the estimated cost of the case; (2) 120 percent of the LTC–DRG specific per diem amount multiplied by the covered LOS of that discharge; or (3) the full LTC–DRG payment.

Generally LTCHs are defined by statute as having an average LOS of greater than 25 days. We believe that since a SSO case may occur when a beneficiary receives less than the full course of treatment at the LTCH before being discharged, the full LTC–DRG payment would generally not be appropriate. Accordingly, based on an evaluation of data from more than 3 years of the LTCH PPS which revealed that a large percentage of SSOs had a covered LOS of 14 days or less, we further revised our payment policy for SSO cases in the RY 2007 and RY 2008 LTCH PPS final rules (71 FR 27845 through 27870 and 72 FR 26904 through 26918) for LTCHs defined by section 1886(d)(1)(B)(iv)(I) of the Act. However, as we discussed in detail in the RY 2007 and RY 2008 LTCH PPS final rules (71 FR 27863 and 72 FR 26907), we did not believe that it was appropriate to apply our RY 2007 and RY 2008 SSO policy revisions, discussed below, to the unique situation of a LTCHs defined by section 1886(d)(1)(B)(iv)(II) of the Act.

For RY 2007, consistent with the Secretary's broad authority ''to provide for appropriate adjustments to the long-term hospital payment system * * *'' established under section 123 of the BBRA as amended by section 307(b)(1) of BIPA, we reduced the cost-based option of the SSO policy adjustment to 100 percent of the estimated costs of the case for discharges occurring on or after July 1, 2006. Furthermore, in the RY 2007 LTCH PPS final rule, we added a fourth payment option to the SSO policy, following an analysis of the FY 2004 MedPAR data that indicated that even under the existing SSO policy, LTCHs were admitting short stay patients that we believe could have continued treatment at the acute care hospitals (paid for under the IPPS). Furthermore, we believe that these types of admissions (that is, of patients from acute care hospitals that result in short stay cases at the LTCH) could result in unnecessary and inappropriate admissions to LTCHs. This fourth payment alternative is a blend of an LTCH PPS amount that is comparable to the IPPS per diem payment amount, and the 120 percent of the LTC–DRG per diem payment amount. Specifically, the blended payment is based on a percentage of an IPPS comparable amount computed as a per diem and capped at the full IPPS-comparable amount, and a percentage of a payment based on 120 percent of the LTC–DRG per diem amount so that as the length of the stay increases, the percentage of the IPPS comparable per diem amount will decrease and the percentage based on 120 percent of the LTC–DRG per diem specific amount will increase. This reflects our belief that as the length of a SSO stay increases, the case begins to resemble a more ''typical'' LTCH stay and, therefore, it is appropriate that incrementally, payment should be based more on what would otherwise be payable under the LTCH PPS and less on the ''IPPS-comparable'' amount. (Specifics of calculating the ''IPPS-

comparable'' amount are set forth in considerable detail in the RY 2007 LTCH PPS final rule (71 FR 27852 through 27853).)

In the RY 2008 LTCH PPS final rule (72 FR 26904 through 26918), we further revised the SSO policy based upon additional analysis of the FY 2005 MedPAR data. Specifically, our analysis revealed that 42 percent of LTCH SSO discharges, or approximately 19,750 cases, had covered lengths of stay that were less than or equal to the ALOS plus one standard deviation of an IPPS discharge for the same DRG as the LTC–DRG to which the case was assigned. (For additional discussion of this specific determination, see the RY 2008 LTCH PPS final rule (72 FR 26905).) At that time, we stated that we believed that the 42 percent of LTCH SSO cases in the RY 2005 MedPAR files with LOS that are equal to or less than the IPPS average LOS plus one standard deviation for the same DRGs under the IPPS appeared to be comparable to typical stays at acute care hospitals.

For this subgroup of SSO cases, we stated that even with the blend option, we believe that payment in excess of what Medicare would have paid under the IPPS is inappropriate. (We note that in the FY 2008 IPPS final rule (72 FR 47130) the Medicare severity-diagnosis related groups (MS–DRGs) and the Medicare severity-long-term care-diagnosis related groups (MS–LTC–DRGs) were adopted for the IPPS and the LTCH PPS, respectively. Therefore, for SSO policies that are applicable to LTCH discharges occurring on or after October 1, 2007, all references to DRGs and LTC–DRGs should be understood to represent MS–DRGs and MS–LTC–DRGs (see § 412.503). Accordingly, in the RY 2008 LTCH PPS final rule we established an alternative fourth payment option for SSO cases under the LTCH PPS for discharges occurring on or after July 1, 2007. Specifically, the covered LOS of a SSO case which has been assigned to a particular MS–LTC–DRG is compared to the average LOS plus one standard deviation for the same DRG under the IPPS, which we call ''IPPS comparable threshold.'' For example, if the covered LOS of the LTCH SSO case is equal to or less than the average LOS plus one standard deviation for the same DRG under the IPPS, the LTCH SSO case would be within the ''IPPS comparable threshold'' (72 FR 26870 and 26906). We note that the ''IPPS-comparable threshold'' is only applicable if a particular stay is a SSO, that is, with a covered LOS equal to or less than five-sixth of the average LOS of the applicable MS–LTC–DRG. Thus, for a LTCH SSO case that is within the ''IPPS comparable threshold,'' the fourth payment option would be based on an amount comparable to the hospital IPPS per diem amount determined under § 412.529(d)(4). For a SSO case with a covered LOS that exceeds the ''IPPS-comparable'' threshold, the fourth payment option continues to be the ''blend'' established in RY 2007, described above. For all SSO cases, the first three SSO payment options are the same. To summarize, as established in § 412.529, for each SSO case treated at a LTCH defined under section 1886(d)(1)(B)(iv)(I), Medicare will pay the least of the following:

- 100 percent of the estimated cost of the case.
- 120 percent of the LTC–DRG specific per diem amount multiplied by the covered LOS of the particular case.
- The full LTC–DRG.
- Comparing the covered LOS for a SSO case and the ''IPPS comparable threshold'' one of the following:

++ The blend of the 120 percent of the LTC–DRG specific per diem amount and an amount comparable to the IPPS per diem amount specified in § 412.529(c)(2)(iv), for cases where the covered LOS for a SSO case is *greater* than the ''IPPS comparable threshold''.

++ An amount comparable to the hospital IPPS per diem amount determined under § 412.529(d)(4) for cases where the covered LOS for a SSO is *less than or equal to* the ''IPPS comparable threshold.'' We note that the revisions of the SSO policy payment options that were finalized beginning in RY 2007, (that is, the ''blend'' and reduction of the 120 percent of the estimated cost to 100 percent), and RY 2008 (the ''IPPS-comparable'' threshold option) were not applied to the unique situation of a hospital designated as a LTCH by the Congress under section 1886(d)(1)(B)(iv)(II) of the Act, that is, (a ''subclause (II)'' LTCH) (71 FR 27863 and 72 FR 26907).

2. Change to the SSO Policy Due to the Medicare, Medicaid, and SCHIP Extension Act of 2007

Section 114(c)(3) of MMSEA provides that ''[t]he Secretary shall not apply, for the 3-year period beginning on the date of the enactment of this Act, the amendments finalized on May 11, 2007 (72 **Federal Register** 26904, 26992) made to the short-stay outlier payment provision for long-term care hospitals contained in section 412.529(c)(3)(i) of title 42, Code of Federal Regulations, or any similar provision.'' Accordingly, for discharges beginning on or after December 29, 2007 and before December 29, 2010, the fourth SSO payment option based on the ''IPPS comparable threshold'' as discussed above shall not apply. Specifically, during the 3-year period specified above, for each SSO case treated at a LTCH defined under section 1886(d)(1)(B)(iv)(I) of the Act, Medicare will pay the least of: (1) 100 percent of the estimated cost of the case; (2) 120 percent of the LTC–DRG specific per diem amount multiplied by the covered LOS of the particular case; (3) the full LTC–DRG; or (4) the blend of the 120 percent of the LTC–DRG specific per diem amount and an amount comparable to the IPPS per diem amount specified in § 412.529(c)(2)(iv).

Accordingly, we are amending the appropriate regulations pertaining to the payment of SSO to implement section 114(c)(3) of MMSEA. Specifically, we made several heading changes and redesignated paragraph (c)(4), which refers to the policy for reconciliation of SSO payments, as the new paragraph (f). We note that we have not made any substantive changes to the policy for reconciliation of SSO payment (other than those associated with implementing section 114(c)(3) of MMSEA) and that the redesignation of the paragraph (c)(4) as (f), in addition the heading changes are simply reorganizational changes intended to make the regulations in this section more accessible. We also note that in amending the regulations, we discovered that several citations under existing paragraph (c)(4) were incorrect, originating from the RY 2008 final rule when we redesignated this paragraph from (c)(3) to (c)(4) (which was also an organizational change and not a substantive policy change to the policy on reconciliation of SSO payment) but inadvertently did not change the citations to correspond to the redesignation. In this interim final rule with comment period, we have corrected the citations in the redesignated paragraph (f).

*C. Standard Federal Rate for the 2008 LTCH PPS Rate Year*

1. Background

As specified at § 412.523(c)(3)(ii), for LTCH PPS rate years beginning RY 2004 through RY 2006, we updated the standard Federal rate by a factor to adjust for the most recent estimate of the increases in prices of an appropriate market basket of goods and services for LTCHs. When we moved the date of the annual update of the LTCH PPS from October 1 to July l in the RY 2004 LTCH PPS final rule (68 FR 34126 through 34128), we revised § 412.523(c)(3) accordingly.

In the RY 2007 LTCH PPS final rule (71 FR 27818), we explained that rather than solely using the most recent estimate of the LTCH PPS market basket as the basis of the update factor for the Federal rate at RY 2007, we believed it is appropriate to adjust the Federal rate to account for the changes in case mix that are due to changes in coding practices (rather than an increase in patient severity) as indicated by our ongoing monitoring activities. We established at § 412.523(c)(3)(iii) that the update to the standard Federal rate for the 2007 LTCH PPS rate year was zero percent, based on the most recent estimate of the LTCH PPS market basket at the time and an adjustment to account for changes in case-mix in prior periods that are due to changes in coding practices, rather than increased patient severity, in FY 2004. Therefore, effective from July 1, 2006 through June 30, 2007, the standard rate was $38,086 (71 FR 27818). For the following year, we also considered changes in case mix in 2005 as opposed to 2004 that were due to changes in coding practices (rather than increased patient severity) in establishing the update to the Federal rate for the 2008 LTCH PPS rate year. In the RY 2008 LTCH final rule (72 FR 26887 through 26890), we adjusted the Federal rate based on the most recent estimate of market basket (3.2 percent) and an adjustment to account for changes in coding practices (2.49 percent) in FY 2005. Accordingly, we established at § 412.523(c)(3)(iv) that the update to the standard Federal rate for RY 2008 was 0.71 percent and we established the LTCH PPS standard Federal rate, effective from July 1, 2007 through June 30, 2008, at $38,356.45 (see 72 FR 26890).

2. Section 114(e)(1) and (2) of the Medicare, Medicaid, and SCHIP Extension Act of 2007

Section 114(e)(1) of MMSEA revises the base rate for RY 2008. Specifically, section 114(e)(1) of Public Law 110–173 adds a new subsection 1886(m)(2) of the Act, which provides that the base rate for RY 2008 ''shall be the same as the base rate for discharges for the hospital occurring during the rate year ending in 2007.'' In addition, section 114(e)(2) of Public Law 110–173 indicates that section 1886(m)(2) of the Act ''shall not apply to discharges occurring on or after July 1, 2007, and before April 1, 2008'' (that is, the first 9 months of RY 2008). We note that the statute uses the term ''base rate,'' which is an undefined term in both section 1886(m) of the Act and in 42 CFR Part 412, subpart O. As we explained in the LTCH PPS RY 2009 proposed rule (73 FR 5361), we are interpreting that term to be the standard Federal rate because we believe Congress meant to eliminate the 0.71 percent update from the RY 2008 standard Federal rate. Under this interpretation, the standard Federal rate for RY 2008 would be the same as the standard Federal rate for RY 2007, that is, the 0.71 percent update finalized in the RY 2008 LTCH PPS final rule would be reversed.

We do not believe that the term ''base rate'' could refer to the ''unadjusted rate'' because the unadjusted rate for RY 2008 would be updated by the current year's update factor in order to determine the standard Federal rate for RY 2008 (that is, to determine the standard Federal rate for any given rate year, the previous year's standard Federal rate, referred herein as the ''unadjusted rate,'' is updated by the current year's update factor) and doing so would result in the same Federal rate for RY 2008 as was adopted in the RY 2008 final rule. To illustrate mathematically, if ''base rate'' is interpreted to mean ''unadjusted rate,'' the ''unadjusted rate'' for RY 2008 ($38,086.04) would be the same as the RY 2007 ''unadjusted rate'' ($38,086.04). The RY 2008 ''unadjusted rate'' of $38,086.04 would subsequently be updated by the 0.71 percent update factor finalized in the RY 2008 final rule, resulting in a standard Federal rate for RY 2008 of $38,356.45, which is the same standard Federal rate that was originally finalized in the RY 2008 final rule. If we adopted this interpretation, we believe that LTCH PPS payments would be unaffected by section 114(e)(1) of MMSEA. Therefore, we believe that the term ''base rate'' used in section 114(e)(1) of MMSEA refers to the standard Federal rate. In subsequent sections of this preamble, we are using the term standard Federal rate instead of ''base rate'' when referencing the provision in section 114(e)(1) of MMSEA in order to avoid further confusion.

In the RY 2008 LTCH PPS final rule (72 FR 26890), we established a standard Federal rate of $38,356.45 for the 2008 LTCH PPS rate year that was based on the best available data and policies established in that final rule. As discussed above, section 114(e) of MMSEA revises the standard Federal rate for RY 2008 while specifying that this rate ''shall not apply to discharges occurring on or after July 1, 2007, and before April 1, 2008'' (that is, the first 9 months of RY 2008). Specifically, section 114(e)(1) of MMSEA provides that under the new section 1886(m)(2) of the Act, the standard Federal rate for RY 2008 shall be the same as the standard Federal rate for RY 2007. The standard Federal rate for RY 2007 was $38,086.04 (71 FR 27818). Thus, to implement 114(e)(1) of the MMSEA, we are establishing through this interim final rule with comment period that the RY 2008 standard Federal rate is $38,086.04 (the same as the standard Federal rate for 2007). However, section 114(e)(2) of MMSEA specifically delays the application of the revised RY 2008 standard Federal rate. Specifically, section 114(e)(2) of MMSEA states that the revised RY 2008 standard Federal rate ''shall not apply to discharges occurring on or after July 1, 2007, and before April 1, 2008.'' Therefore, LTCH payments for discharges occurring on or after July 1, 2007 through March 31, 2008, will continue to include an adjustment of 0.71 percent, that is, payments are based on the standard Federal rate in § 412.523(c)(3)(iii) as updated by 0.71 percent. Accordingly, for discharges occurring on or after April 1, 2008 through June 30, 2008, the revised RY 2008 standard Federal rate of $38,086.04 is applied, while payments for discharges occurring from July 1, 2007 through March 31, 2008 are determined based on the standard Federal rate in § 412.523(c)(3)(iii) increased by 0.71 percent that is, $38,356.45. We are revising § 412.523(c)(iv) to conform to the revision of the standard Federal rate for RY 2008 under section 114(e) of MMSEA and to specify how payments are determined during RY 2008.

Furthermore, section 114(e) of MMSEA affects the high cost outlier fixed-loss amount currently in effect since it revises the standard Federal rate for RY 2008 and the standard Federal rate is used to determine the fixed-loss amount. Specifically, the current fixed-loss amount was determined based on a standard Federal rate of $38,356.45. (See the RY 2008 LTCH PPS final rule (72 FR 26896 through 26899), as amended by the RY 2008 correction notice (72 FR 36613), for a discussion of the methodology and data used to determine the current fixed-loss amount for RY 2008.) Since for discharges occurring on or after April 1, 2008 through June 30, 2008, payments will be based on the revised RY 2008 standard Federal rate of $38,086.04, consistent with the existing regulations at § 412.525(a), in order to maintain estimated total payments for high cost outlier cases at 8 percent of the estimated total payments, we are revising the high cost outlier fixed-loss amount. Accordingly, under the broad authority conferred on the Secretary by section 123 of the BBRA, as amended by

section 307(b) of BIPA, to make appropriate adjustments to the LTCH PPS, the revised high cost outlier fixed-loss amount effective for discharges occurring on or after April 1, 2008 through June 30, 2008 is $20,707. This revised fixed-loss amount was determined using the same data and methodology presented in the RY 2008 LTCH PPS final rule and takes into account the revised RY 2008 standard Federal rate as provided for in the MMSEA (discussed above).

We note that in the RY 2009 LTCH PPS proposed rule (73 FR 5362), consistent with our historical practice, we proposed to update the standard Federal rate from the previous year (which is $38,086.04 due to section 114(e) of MMSEA, as explained above) to determine the proposed standard Federal rate for RY 2009.

## III. Response to Comments

Because of the large number of public comments we normally receive on **Federal Register** documents, we are not able to acknowledge or respond to them individually. We will consider all comments we receive by the date and time specified in the ''DATES'' section of this preamble, and, when we proceed with a subsequent document, we will respond to the comments in the preamble to that document.

## IV. Waiver of Proposed Rulemaking

We ordinarily publish a notice of proposed rulemaking and invite public comment on a proposed rule in accordance with 5 U.S.C. section 553(b) of the Administrative Procedure Act (APA). In addition, section 1871(b)(1) provides that the Secretary shall provide for notice of the proposed regulation in the **Federal Register** and a period of not less than 60 days for public comment thereon. Section 1871(b)(2) provides for an exception to the requirement that the Secretary provide for notice of a proposed rulemaking and a period of not less than 60 days for public comment. Specifically, section 1871(b)(2)(B) of the Act provides an exception to these requirements when a law establishes a specific deadline for the implementation of a provision and the deadline is less than 150 days after the date of the enactment of the statute in which the deadline is contained. Here, various provisions of the MMSEA addressed in this interim final rule with comment period, changed existing LTCH PPS policies (it affected the short-stay outlier policy in § 412.529 and revised the RY 2008 standard Federal rate. Such changes were required to be implemented: (1) Beginning December 29, 2007 (section 114(c)(3) of MMSEA), and (2) were effective for RY 2008 on April 1, 2008 (section 114(e)(2) of MMSEA). Thus, the statute's deadline for implementation of the MMSEA-related policies contained in this interim final regulation was less than 150 days after the date of the enactment of the statute in which the deadline was contained. Therefore, under the authority of section 1871(b)(2)(B) of the Act, we are waiving notice and comment procedures for the MMSEA policy changes pertaining to the short-stay outlier policy, and the revised RY 2008 standard Federal rate.

Moreover, we also find good cause to waive the requirement for publication of a notice of proposed rulemaking and comment on the grounds that it is unnecessary, impracticable and contrary to the public interest under the authority of 5 U.S.C. 553(b)(B). In general, this interim final rule with comment period sets forth three nondiscretionary provisions of the MMSEA with respect to short-stay outliers and the rate for RY 2008. Therefore, we believe pursuing notice and comment is unnecessary. Moreover, because that process would prevent timely implementation of congressionally mandated policy changes that are to be effective, as described previously in this section, we believe notice and comment procedures are impracticable and contrary to the public interest. In addition, notice and comment would delay significantly the issuance of essential guidance to the public which is necessary to assist them in making complex, time-sensitive business decisions of significant financial consequence with respect to their efforts to comply with section 114 of the MMSEA. Failure to provide this guidance would impede such business decisions. This regulation also makes three changes that are outside of the MMSEA mandated changes discussed above. Specifically, this regulation makes minor technical corrections to two incorrect cites that are embedded in § 412.529 and it revises the fixed-loss amount for the period April 1, 2008, through June 30, 2008. With respect to the technical corrections of the two embedded cites in § 412.529, notice and comment is also unnecessary. The revisions do not represent changes to our policy, and the public interest would, as a result, be best served by the timely correction of these technical errors. A delay in the applicability of the nonsubstantive changes would be contrary to the public interest because the incorrect cites, if left in place, result in confusion with respect to the calculation of cost-to-charge ratios. We also find good cause to waive notice and comment procedures on the revised fixed-loss amount for the period April 1, 2008, through June 30, 2008. The fixed-loss amount under the LTCH PPS is directly affected by the statutorily mandated change to the standard Federal rate for RY 2008 cited above. The existing regulations limit estimated high cost outlier payments under the LTCH PPS to 8 percent of total estimated LTCH PPS payments. Accordingly, in order to assure that estimated high cost outlier payments are maintained at this 8 percent target, in conjunction with the Congressionally mandated change in the LTCH PPS payments (that is, the standard Federal rate) that applies April 1, 2008, it would be contrary to the public interest if we did not make this conforming change to the high cost outlier fixed-loss amount, which lowers the fixed-loss amount for the period April 1, 2008, through June 30, 2008.

Section 1871(e)(1)(A) of the Act provides that a substantive change in regulations, manual instructions, interpretative rules, statements of policy, or guidelines of general applicability under this title shall not be applied (by extrapolation or otherwise) retroactively to items and services furnished before the effective date of the change unless the Secretary determines that (i) such retroactive application is necessary to comply with statutory requirements; or (ii) failure to apply the change retroactively would be contrary to the public interest. As explained in the paragraph above, the MMSEA requires the Secretary to implement various policy changes contemporaneously with the enactment of the MMSEA on December 29, 2007. Therefore, under the authority of section 1871(e)(1)(A)(i) of the Act, we are making the provisions of this interim final rule with comment period that implement section 114(c)(3) of MMSEA retroactive to December 29, 2007. Additionally, as explained previously, the Secretary also finds that it would be contrary to the public interest if these provisions were not made effective on December 29, 2007, as explained above.

Also, as explained in the previous paragraph, section 114(e)(1) of MMSEA requires the Secretary to revise standard Federal rate for RY 2008. However, the Secretary shall not apply such revised rate to discharges occurring on or after July 1, 2007, and before April 1, 2008 (section 114(e)(2) of the Act). Consequently, the regulations implementing section 114(e)(2) of MMSEA must be effective for a period predating this interim final rule with comment period under the authority of

section 1871(e)(1)(A)(i) of the Act (specifically, beginning April 1, 2008). As explained previously, it would also be contrary to the public interest if these policies were not effective April 1, 2008.

In general, many of the provisions of the MMSEA implemented in this interim final regulation are beneficial to LTCHs. If those MMSEA provisions of this regulation were not effective under the timeframes noted above, most LTCHs would be deprived the full benefit of these provisions. With respect to the minor technical corrections to § 412.529, failure to make these nonsubstantive changes applicable beginning on December 29, 2007, would be contrary to the public interest because of the confusion that could result from the incorrect citations in § 412.529. It is in the public interest to make the correction to prevent confusion among long-term care hospitals attempting to calculate cost-to-charge ratios. It is also contrary to the public interest as described above to not make the change to the fixed-loss amount applicable beginning April 1, 2008. Therefore, under the authority of section 1871(e)(1)(A)(ii) of the Act, we are making these changes effective under the timeframes noted above. For the same reasons noted above, we find good cause under section 553(d)(3) of the APA to waive the 30-day delay in the effective date.

## V. Collection of Information Requirements

Under the Paperwork Reduction Act of 1995, we are required to provide 60-day notice in the **Federal Register** and solicit public comment before a collection of information requirement is submitted to the Office of Management and Budget (OMB) for review and approval. In order to fairly evaluate whether an information collection should be approved by OMB, section 3506(c)(2)(A) of the Paperwork Reduction Act of 1995 requires that we solicit comment on the following issues:

- The need for the information collection and its usefulness in carrying out the proper functions of our agency.
- The accuracy of our estimate of the information collection burden.
- The quality, utility, and clarity of the information to be collected.
- Recommendations to minimize the information collection burden on the affected public, and including automated collection techniques.

We are soliciting public comment on each of these issues for the following sections of this document that contain information collection requirements (ICRs):

Section 412.529(f)(4) states that for discharges occurring on or after October 1, 2006, short-stay outlier payments are subject to certain provisions. Specifically, § 412.529(f)(4)(i) states that a hospital may also request that its fiscal intermediary use a different (higher or lower) cost-to-charge ratio and this request must be approved by the appropriate CMS Regional Office.

The burden associated with this requirement is the time and effort necessary for a hospital to collect supporting evidence for submission, to draft the request for alternative cost-to-charge ratio, and to submit the request along with the supporting evidence to the appropriate CMS Regional Office. While this requirement is subject to the PRA, the burden is currently approved under OMB control number 0938–1020 with an expiration date of June 30, 2010.

TABLE 3.—ESTIMATED ANNUAL REPORTING AND RECORDKEEPING BURDEN

| Regulation section(s) | OMB Control No. | Respondents | Responses | Burden per response (hours) | Total annual burden (hours) |
|---|---|---|---|---|---|
| § 412.529(f) | 0938–1020 | 18 | 18 | 8 | 144 |
| Total | | | | | 144 |

If you comment on these information collection and recordkeeping requirements, please do either of the following:

1. Submit your comments electronically as specified in the **ADDRESSES** section of this proposed rule; or

2. Mail copies to the address specified in the **ADDRESSES** section of this proposed rule and to the Office of Information and Regulatory Affairs, Office of Management and Budget, Room 10235, New Executive Office Building, Washington, DC 20503, Attn: Carolyn L. Raffaelli, CMS Desk Officer, CMS–1493–IFC, *Carolyn_L._Raffaelli@omb.eop.gov*. Fax (202) 395–6974.

## VI. Regulatory Impact Analysis

We have examined the impacts of this rule as required by Executive Order 12866 (September 1993, Regulatory Planning and Review), the Regulatory Flexibility Act (RFA) (September 19, 1980, Pub. L. 96–354), section 1102(b) of the Social Security Act, the Unfunded Mandates Reform Act of 1995 (Pub. L. 104–4), Executive Order 13132 on Federalism, and the Congressional Review Act (5 U.S.C. 804 (2)).

Executive Order 12866 (as amended by Executive Order 13258) directs 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). A regulatory impact analysis (RIA) must be prepared for major rules with economically significant effects ($100 million or more in any 1 year).

As stated in section II.C. of this preamble, section 114(e)(1) of the Medicare, Medicaid, and SCHIP Extension Act of 2007 at the new 1886(m)(2) of the Act revises the standard Federal rate for RY 2008 by providing that ''for discharges occurring during the rate year ending in 2008 for a hospital, the base rate for such discharges for the hospital shall be the same as the base rate for discharges for the hospital occurring during the rate year ending in 2007'' (in other words, the standard Federal rate for RY 2008 is the same as the standard Federal rate for 2007). Thus, the standard Federal rate for RY 2008 is established in section II.C. of this interim final rule with comment period at $38,086.04 (the same as the standard Federal rate for 2007). However, as we discussed in section II.D. of this interim final rule with comment period, section 114(e)(2) of the MMSEA specifically indicates that this rate ''shall not apply to discharges occurring on or after July 1, 2007, and before April 1, 2008.'' Therefore, payments for discharges occurring on or after July 1, 2007 through March 31, 2008, are based on $38,356.45 (as established in the RY 2008 LTCH PPS final rule), while for discharges occurring on or after April 1, 2008 through June 30, 2008, payments are based on the RY 2008 standard Federal rate which is $38,086.04. CMS' Office of the Actuary (OACT) estimates a

projected decrease of approximately $5 million in estimated aggregate LTCH PPS payments for RY 2008 resulting from the change in payments for discharges occurring on or after April 1, 2008 through June 30, 2008. Additionally, as discussed in section II.B. of this interim final rule with comment period, section 114(c)(3) of MMSEA requires a 3-year suspension of our implementation of the revision to the SSO policy at § 412.529(c)(3)(i) that was finalized in the RY 2008 final rule. OACT estimates that the SSO provision included in the MMSEA will result in a projected increase in estimated aggregate LTCH PPS payments for RY 2008 of $20 million. Consequently, we estimate the combined impact on estimated aggregate LTCH PPS payments for RY 2008 from the MMSEA provisions that are presented in this interim final rule with comment period to be approximately $15 million. Because the combined distributional effects and estimated changes to the Medicare program payments would not be greater than $100 million, this interim final rule with comment period would not be considered a major economic rule, as defined in this section.

The RFA requires agencies to analyze options for regulatory relief of small businesses. For purposes of the RFA, small entities include small businesses, nonprofit organizations, and small governmental jurisdictions. Most hospitals and most other providers and suppliers are small entities, either by nonprofit status or by having revenues of $6.5 million to $31.5 million in any 1 year. (For further information, see the Small Business Administration's regulation at 70 FR 72577, December 6, 2005.) Individuals and States are not included in the definition of a small entity. Because we lack data on individual hospital receipts, we cannot determine the number of small proprietary LTCHs. Therefore, we assume that all LTCHs are considered small entities for the purpose of this impact discussion. Medicare FIs and MACs are not considered to be small entities. As we discuss in detail throughout the preamble of this interim final rule with comment period, we believe that the provisions specified by the MMSEA presented in this rule would result in an increase in estimated aggregate LTCH PPS payments. Accordingly, the Secretary certifies that this interim final rule with comment period would not have a significant economic impact on a substantial number of small entities.

In addition, section 1102(b) of the Act requires us to prepare a regulatory impact analysis if a rule may have a significant impact on the operations of a substantial number of small rural hospitals. This analysis must conform to the provisions of section 604 of the RFA. For purposes of section 1102(b) of the Act, we define a small rural hospital as a hospital that is located outside of a Metropolitan Statistical Area for Medicare payment regulations and has fewer than 100 beds. As stated above, implementing the provisions specified by the MMSEA that are discussed in this rule would result in an increase in estimated aggregate LTCH PPS payments; therefore, we believe this rule will not have a significant impact on small rural hospitals. Accordingly, the Secretary certifies that this interim final rule with comment period would not have a significant economic impact on the operations of a substantial number of small rural hospitals.

Section 202 of the Unfunded Mandates Reform Act of 1995 also requires that agencies assess anticipated costs and benefits before issuing any rule whose mandates require spending in any 1 year of $100 million in 1995 dollars, updated annually for inflation. In 2008, that threshold level is currently approximately $130 million. This interim final rule with comment period would not mandate any requirements for State, local, or tribal governments, nor would it result in expenditures by the private sector of $130 million or more in any 1 year.

Executive Order 13132 establishes certain requirements that an agency must meet when it promulgates a proposed rule (and subsequent final rule) that imposes substantial direct requirement costs on State and local governments, preempts State law, or otherwise has Federalism implications. Since this regulation does not impose any costs on State or local governments, the requirements of Executive Order 13132 are not applicable.

In accordance with the provisions of Executive Order 12866, this regulation was reviewed by the Office of Management and Budget.

**List of Subjects in 42 CFR Part 412**

Administrative practice and procedure, Health facilities, Medicare, Puerto Rico, Reporting and recordkeeping requirements.

■ For the reasons stated in the preamble of this interim final rule with comment period, the Centers for Medicare & Medicaid Services is amending 42 CFR Chapter IV as follows:

## PART 412—PROSPECTIVE PAYMENT SYSTEMS FOR INPATIENT HOSPITAL SERVICES

■ 1. The authority citation for part 412 is revised to read as follows:

**Authority:** Secs. 1102 and 1871 of the Social Security Act (42 U.S.C. 1302 and 1395hh).

■ 2. In § 412.1 paragraph (a)(4) is revised to read as follows:

### § 412.1 Scope of part.

(a) * * *

(4) This part implements the following regarding long-term care hospitals—

(i) Section 123 of Public Law 106–113, which provides for the establishment of a prospective payment system for the costs of inpatient hospital services furnished to Medicare beneficiaries by long-term care hospitals described in section 1886(d)(1)(B)(iv) of the Act, for cost reporting periods beginning on or after October 1, 2002.

(ii) The provisions of section 307(b) of Public Law 106–554, which state that the Secretary shall examine and may provide for appropriate adjustments to the long-term care hospital prospective payment system, including adjustments to diagnosis-related group (DRG) weights, area wage adjustments, geographic reclassification, outlier adjustments, updates, and disproportionate share adjustments consistent with section 1886(d)(5)(F) of the Act.

(iii) Section 114 of Public Law 110–173, which contains several provisions regarding long-term care hospitals, including the—

(A) Amendment of section 1886 of the Act to add a new subsection (m) that references section 123 of Public Law 106–113 and section 307(b) of Public Law 106–554 for the establishment and implementation of a prospective payment system for payments under title XVIII for inpatient hospital services furnished by a long-term care hospital described in section 1886(d)(1)(B)(iv) of the Act.

(B) Revision of the standard Federal rate for RY 2008.

* * * * *

■ 3. Section 412.500 is amended by revising paragraph (a) to read as follows:

### § 412.500 Basis and scope of subpart.

(a) *Basis.* This subpart implements the following:

(1) Section 123 of Public Law 106–113, which provides for the implementation of a prospective payment system for long-term care hospitals described in section 1886(d)(1)(B)(iv) of the Act.

(2) Section 307 of Public Law 106–554, which states that the Secretary shall examine and may provide for appropriate adjustments to that system, including adjustments to DRG weights, area wage adjustments, geographic reclassification, outliers, updates, and disproportionate share adjustments consistent with section 1886(d)(5)(F) of the Act.

(3) Section 114 of Public Law 110–173, which contains several provisions regarding long-term care hospitals, including the—

(i) Amendment of section 1886 of the Act to add a new subsection (m) that references section 123 of Public Law 106–113 and section 307(b) of Public Law 106–554 for the establishment and implementation of a prospective payment system for payments under title XVIII for inpatient hospital services furnished by a long-term care hospital described in section 1886(d)(1)(B)(iv) of the Act; and

(ii) Revision of the standard Federal rate for RY 2008.

* * * * *

■ 4. Section 412.523 is amended by revising paragraph (c)(3)(iv) to read as follows:

**§ 412.523 Methodology for calculating the Federal prospective payment rates.**

* * * * *

(c) * * *

(3) * * *

(iv) *For long-term care hospital prospective payment system rate year beginning July 1, 2007 and ending June 30, 2008.*

(A) The standard Federal rate for long-term care hospital prospective payment system rate year beginning July 1, 2007 and ending June 30, 2008 is the same as the standard Federal rate for the previous long-term care hospital prospective payment system rate year. The standard Federal rate is adjusted, as appropriate, as described in paragraph (d) of this section.

(B) With respect to discharges occurring on or after July 1, 2007 and before April 1, 2008, payments are based on the standard Federal rate in paragraph (c)(3)(iii) of this section updated by 0.71 percent.

* * * * *

■ 5. Section 412.529 is amended by—

■ A. Revising paragraphs (c)(1) through (c)(3).

■ B. Redesignating paragraph (c)(4) as paragraph (f).

■ C. Revising newly redesignated paragraph (f).

**§ 412.529 Special payment provision for short-stay outliers.**

* * * * *

(c) * * *

(1) *Discharges occurring before July 1, 2006.* For discharges from long-term care hospitals described under § 412.23(e)(2)(i), occurring before July 1, 2006, the LTCH prospective payment system adjusted payment amount for a short-stay outlier case is the least of the following amounts:

(i) One hundred and twenty (120) percent of the LTC–DRG specific per diem amount determined under paragraph (d)(1) of this section.

(ii) One hundred and twenty (120) percent of the estimated cost of the case determined under paragraph (d)(2) of this section.

(iii) The Federal prospective payment for the LTC–DRG determined under paragraph (d)(3) of this section.

(2) *Discharges occurring on or after July 1, 2006 and before July 1, 2007 and discharges occurring on or after December 29, 2007 and before December 29, 2010.* For discharges from long-term care hospitals described under § 412.23(e)(2)(i) occurring on or after July 1, 2006 and before July 1, 2007 and discharges occurring on or after December 29, 2007 and before December 29, 2010, the LTCH prospective payment system adjusted payment amount for a short-stay outlier case is the least of the following amounts:

(i) One hundred and twenty (120) percent of the LTC–DRG specific per diem amount determined under paragraph (d)(1) of this section.

(ii) One hundred (100) percent of the estimated cost of the case determined under paragraph (d)(2) of this section.

(iii) The Federal prospective payment for the LTC–DRG as determined under paragraph (d)(3) of this section.

(iv) An amount payable under subpart O computed as a blend of an amount comparable to the hospital inpatient prospective payment system per diem amount determined under paragraph (d)(4)(i) of this section and the 120 percent of the LTC–DRG specific per diem payment amount determined under paragraph (d)(1) of this section.

(A) The blend percentage applicable to the 120 percent of the LTC–DRG specific per diem payment amount determined under paragraph (d)(1) of this section is determined by dividing the covered length-of-stay of the case by the lesser of five-sixths of the geometric average length of stay of the LTC–DRG or 25 days, not to exceed 100 percent.

(B) The blend percentage of the amount determined under paragraph (d)(4)(i) of this section is determined by subtracting the percentage determined in paragraph (A) from 100 percent.

(3) *Discharges occurring on or after July 1, 2007 and before December 29, 2007 and discharges occurring on or after December 29, 2010.* For discharges from long-term care hospitals described under § 412.23(e)(2)(i) occurring on or after July 1, 2007 and before December 29, 2007 and discharges occurring on or after December 29, 2010, the LTCH prospective payment system adjusted payment amount for a short-stay outlier case is adjusted by either of the following:

(i) If the covered length of stay of the case assigned to a particular LTC–DRG is less than or equal to one standard deviation from the geometric ALOS of the same DRG under the inpatient prospective payment system (the IPPS-comparable threshold), the LTCH prospective payment system adjusted payment amount for such a case is the least of the following amounts:

(A) One hundred and twenty (120) percent of the LTC–DRG specific per diem amount determined under paragraph (d)(1) of this section.

(B) One hundred (100) percent of the estimated cost of the case determined under paragraph (d)(2) of this section.

(C) The Federal prospective payment for the LTC–DRG as determined under paragraph (d)(3) of this section.

(D) An amount payable under subpart O of this part comparable to the hospital inpatient prospective payment system per diem amount determined under paragraph (d)(4) of this section.

(ii) If the covered length of stay of the case assigned to a particular LTC–DRG is greater than one standard deviation from the geometric ALOS of the same DRG under the inpatient prospective payment system (the IPPS-comparable threshold), the LTCH prospective payment system adjusted payment amount for such a case is determined under paragraph (c)(2) of this section.

* * * * *

(f) *Reconciliation of short-stay outlier payments.* Payments are reconciled in accordance with one of the following:

(1) *Discharges occurring on or after October 1, 2002, and before August 8, 2003.* For discharges occurring on or after October 1, 2002, and before August 8, 2003, no reconciliations are made to short-stay outlier payments upon cost report settlement to account for differences between cost-to-charge ratio and the actual cost-to-charge ratio of the case.

(2) *Discharges occurring on or after August 8, 2003, and before October 1, 2006.* For discharges occurring on or after August 8, 2003, and before October 1, 2006, short-stay outlier payments are subject to the provisions of § 412.84(i)(1), (i)(3), and (i)(4) and (m) for adjustments of cost-to-charge ratios.

(3) *Discharges occurring on or after October 1, 2003, and before October 1, 2006.* For discharges occurring on or after October 1, 2003, and before October 1, 2006, short-stay outlier payments are subject to the provisions of § 412.84(i)(2) for adjustments to cost-to-charge ratios.

(4) *Discharges occurring on or after October 1, 2006.* For discharges occurring on or after October 1, 2006, short-stay outlier payments are subject to the following provisions:

(i) CMS may specify an alternative to the cost-to-charge ratio otherwise applicable under paragraph (f)(4)(ii) of this section. A hospital may also request that its fiscal intermediary use a different (higher or lower) cost-to-charge ratio based on substantial evidence presented by the hospital. This request must be approved by the appropriate CMS Regional Office.

(ii) The cost-to-charge ratio applied at the time a claim is processed is based on either the most recent settled cost report or the most recent tentatively settled cost report, whichever is from the latest cost reporting period.

(iii) The fiscal intermediary may use a statewide average cost-to-charge ratio, which CMS establishes annually, if it is unable to determine an accurate cost-to-charge ratio for a hospital in one of the following circumstances:

(A) A new hospital that has not yet submitted its first Medicare cost report. (For this purpose, a new hospital is defined as an entity that has not accepted assignment of an existing hospital's provider agreement in accordance with § 489.18 of this chapter.)

(B) A hospital whose cost-to-charge ratio is in excess of 3 standard deviations above the corresponding national geometric mean. CMS establishes and publishes this mean annually.

(C) Any other hospital for which data to calculate a cost-to-charge ratio are not available.

(iv) Any reconciliation of outlier payments is based on the cost-to-charge ratio calculated based on a ratio of costs to charges computed from the relevant cost report and charge data determined at the time the cost report coinciding with the discharge is settled.

(v) At the time of any reconciliation under paragraph (f)(4)(iv) of this section, outlier payments may be adjusted to account for the time value of any underpayments or overpayments. Any adjustment is based upon a widely available index to be established in advance by the Secretary, and is applied from the midpoint of the cost reporting period to the date of reconciliation.

(Catalog of Federal Domestic Assistance Program No. 93.773, Medicare—Hospital Insurance; and Program No. 93.774, Medicare—Supplementary Medical Insurance Program)

Dated: April 4, 2008.

**Kerry Weems,**

*Acting Administrator, Centers for Medicare & Medicaid Services.*

Approved: April 30, 2008.

**Michael O. Leavitt,**

*Secretary.*

[FR Doc. 08–1217 Filed 5–1–08; 4:00 pm]

BILLING CODE 4120–01–P

## DEPARTMENT OF HOMELAND SECURITY

### 48 CFR Part 3036

**[Docket No. DHS–2007–0024]**

**RIN 1601–AA44**

## Department of Homeland Security Acquisition Regulation; One-Step Turnkey Design-Build Contracts for United States Coast Guard (HSAR Case 2007–002)

**AGENCY:** Department of Homeland Security.

**ACTION:** Final rule.

**SUMMARY:** The Department of Homeland Security (DHS or Department) is amending the Homeland Security Acquisition Regulation (HSAR) to incorporate delegation of one-step turnkey design-build authority from the Secretary of Homeland Security to the United States Coast Guard (USCG or Coast Guard). This rule implements changes that result from the USCG Authorization Act for Fiscal Year 2006.

**DATES:** Effective May 6, 2008.

**FOR FURTHER INFORMATION CONTACT:** Kathy Strouss, Department of Homeland Security, Office of the Chief Procurement Officer, Acquisition Policy and Legislation, (202) 447–5300.

**SUPPLEMENTARY INFORMATION:**

I. Background
II. Discussion of Public Comments
III. Regulatory Analyses
A. Executive Order 12866 Assessment
B. Regulatory Flexibility Act

### I. Background

Under the United States Coast Guard (USCG) Authorization Act for Fiscal Year 2006, the Secretary of Homeland Security was authorized to use one-step turnkey design-build procedures when entering into construction contracts. *See* Public Law 109–241, sec. 205. On July 13, 2007, DHS published a proposed rule, which would amend the Department of Homeland Security Acquisition Regulation (HSAR) to incorporate the delegation of turnkey design-build authority from the Secretary of Homeland Security to the United States Coast Guard. *See* 72 FR 38548. DHS adopts the proposed rule as a final rule without change.

### II. Discussion of Public Comments

DHS received public comments from 6 sources on the proposed rule. The public comments received and the responses are summarized below:

*Comment:* Several comments were opposed to this HSAR revision, which would incorporate the delegation of one-step turnkey design-build procedures authority from the Secretary of Homeland Security to the United States Coast Guard. Most commenters fully understood that DHS issued the proposed rule to implement changes enacted by Congress in section 205 of Public Law 109–241; however, the commenters still urged DHS not to adopt the proposed regulation, believing instead that the Department should continue to follow the two-phase design-build procedures laid out in the Federal Acquisition Reform Act (FARA) of 1996.

*Response:* DHS disagrees. The Coast Guard has studied the one-step turnkey design-build process and is fully convinced that it is in the best interest of both the Coast Guard and the government to adopt this streamlined acquisition method. The Coast Guard delegation of one-step turnkey design-build authority is consistent with section 205 of Public Law 109–241. Each construction acquisition is unique, and one-step turnkey design-build methods will be used where it is reasonable, prudent, and offers the best contracting strategy for the Coast Guard.

*Comment:* Other comments fully supported the adoption of a universal design-build methodology for all federal design-build projects. The commenters wrote, however, that the adoption of a turnkey design-build (one-step) method would unnecessarily confuse the private sector with conflicting procurement methodologies.

*Response:* DHS disagrees. The private sector is very familiar with one-step turnkey design-build and has been using the process for years. The private sector has gained experience with one-step design-build use at other federal agencies, such as the Department of Defense (DoD) and the Department of Transportation.

*Comment:* One commenter reminded DHS that the Federal Acquisition Regulation (FAR) Part 36 governs the use of two-phase design-build

procedures for construction contracting and is the only design-build method that is currently allowed under the FAR. This commenter believes that any deviation from the current guidance in FAR part 36 is not authorized by Congress. The commenter requests that the USCG comply with the current laws and intent of Congress in this regard. Another commenter had concerns about the implications of the proposed rule. The commenter highlighted the fact that ''Unless the less complex facilities are truly less complex and do not require extensive designs, the costs to the small business of a one stage procedure could and would be more expensive and may limit competition from small business.'' The commenter also indicated that this proposed rule did not provide enough specificity as to provide adequate notice to the public regarding changes proposed. The commenter urged the Department to reissue a proposed rule with greater specificity (rather than issue a final rule) and to extend the comment period.

*Response:* DHS does not believe one-step turnkey design-build will place an undue burden on small business. Since one purpose of the rule is to provide the Coast Guard with cost and time efficiencies for small construction projects, the rule should also afford small construction companies with an opportunity to successfully compete for such projects. DHS did not extend the comment period for this proposed rule, because DHS does not believe that any additional time is necessary. DHS believes that the comment period provided was sufficient.

*Comment:* DHS received several comments regarding the type of projects to be completed under turnkey. Specifically, commenters wanted to know what constituted a ''complex facility'' versus a ''simple design'' and wanted DHS to elaborate further on the types and size of facilities to be included under the proposed turnkey acquisition methodology.

*Response:* The Coast Guard will consider all types of facilities and projects under turnkey acquisition procedures. The final acquisition method for each project is not finalized until all acquisition planning is complete. The DHS advanced acquisition planning database (located at *http://www.fido.gov*) contains a complete listing of Coast Guard construction projects scheduled for each fiscal year. In addition, the Coast Guard will be developing internal guidelines to ensure that all of its construction offices follow standards in executing one-step turnkey design-build authority.

*Comment:* DHS received a few comments regarding specific implementation policy of two-phase design-build process. Several commenters wrote that price should not enter into the evaluation until after the qualifications of the applicants have been fully evaluated and a shortlist of between three and five fully qualified firms are identified. They wrote that under the proposed rule's one-step selection procedure, price would be mingled with the qualifications. The commenters also believed that a one-step selection process carries numerous disadvantages for both the agency and for the contractors when compared with the existing two-step process. The commenters wrote that under a one-phase process, proposal costs would be escalated, because all of the applicants would have to go through the complete cost proposal process, unlike in two-step design-build process, where only the short-listed firms have to prepare a cost proposal. The commenters wrote that since cost proposals often require a significant pre-contract design effort, there would be a need for the Coast Guard (like some federal agencies) to provide a stipend to the short-listed firms which would increase costs for the agency. In addition, the commenters thought that a one-phase design-build process would deny the Coast Guard the innovation and creativity that is fostered by the two-step selection process as competitors compete to provide the most ''value added'' to their proposals. The commenters indicated that with an unlimited number of competitors, relatively few firms will want to invest the effort to be innovative and creative—especially smaller firms with emerging talent.

*Response:* A historical perspective of past Coast Guard construction projects shows that the majority of construction projects have gone to small businesses. The Coast Guard believes that, under one-step turnkey design-build authority, construction projects will continue to go to small businesses. Contract opportunities would still be available for companies that meet their socio-economic status as specified in federal statutes. This includes companies located in Historically Underutilized Business Zones (HUBZone), companies eligible to receive federal contracts under the Small Business Administration's 8(a) Business Development Program, companies eligible as Service-Disabled Veteran Owned Small Business (SDVOSB) concerns, and other certified Small Business (SB) concerns eligible for contract opportunities. The Coast Guard anticipates that many of its one-step design build projects will involve modest design efforts that will not substantially add to the cost of a contractor's bid or proposal. The Coast Guard does not intend to pay stipends related to costs for one-step turnkey design-build proposal development.

*Comment:* DHS received several comments regarding contractor selection and qualifications. Commenters wrote that if the Coast Guard moves forward in implementing regulations on a one-phase design-build process, then DHS should modify source selection procedures.

*Response:* If DHS were to follow the recommendation of these commenters, DHS would render the one-step turnkey design-build program into a two-step design-build program, thereby defeating the intent of Congress in granting DHS the option of delegating one-step turnkey design-build authority to the Coast Guard. The Coast Guard will base all contract awards under one-step turnkey design-build authority on Best Value Continuum Selection methods. In addition, the Coast Guard is in the process of developing internal guidelines to ensure that all its construction offices follow identical standards in executing one-step turnkey design-build contracts. The guidelines will allow for program standardization among all Coast Guard civil engineering units.

*Comment:* Two commenters recommended that DHS should add a provision to the final rule to limit the use of the one-step design-build process to projects that are ''less complex projects requiring little or adaptive design with a maximum construction value of no more than $6 million.''

*Response:* The Coast Guard intends to utilize one-step turnkey design-build authority on a case-by-case basis. Detailed acquisition planning will determine the best procurement method to use for each project undertaken by various Coast Guard civil engineering units. The Coast Guard does not intend to limit one-step turnkey design-build procedures to procurements falling within predetermined dollar ranges. The Coast Guard will consider all projects regardless of dollar value.

*Comment:* A few commenters remarked that the FAR provision implemented in ''Subpart 36.3—Two-Phase Design-Build Selection Procedures'' should be the only governing provision. They remarked that Congress has never authorized a waiver of or deviation from qualifications based selection (QBS) for architecture, engineering and related services and that Congress has

consistently endorsed and required use of this process (40 U.S.C. 1101 *et seq.* and FAR part 36.6).

*Response:* DHS disagrees. The USCG Authorization Act for Fiscal Year 2006 specifically authorizes the Secretary to use one-step turnkey design-build procedures when entering into construction contracts. *See* Public Law 109–241 section 205. In addition, in the past, the one-step turn-key design-build procedures were authorized by Congress pursuant to 10 U.S.C. 2862. This law allows DoD service secretaries (the Secretary of the Army, the Secretary of the Air Force and the Secretary of the Navy) to use the one-step turnkey procedures for military construction contracts. The purpose of this rule is to delegate authority of the Secretary of Homeland Security under section 205 of Public Law 109–241 (14 U.S.C. 677) to the Coast Guard.

*Comment:* A few comments took exception with the notion that the two-phrase design-build selection process required by the FAR (48 CFR 36.6) results in a much longer process. They commented that the two-phase design-build selection process is the most effective way to get the best results using design-build contracting and works well for large and small, simple and complex projects when used correctly. They also felt that the most effective way for an owner to communicate desired project outcomes is through the use of performance-based requirements, which describe the nature of the project in terms of desire performance outcomes and an owner's goals, challenges, and problems, rather than through restrictive design specifications. They felt that this approach maximizes an offeror's flexibility and allows an owner to evaluate design-build teams' innovation and creativity in providing optimum solutions. Moreover, they felt this approach would capture owner requirements more efficiently while dramatically reducing statement of work paperwork by more than 90 percent.

*Response:* DHS disagrees. The Coast Guard has studied the one-step turnkey design-build process and believes it to be in the best interest of both the Coast Guard and the government to adopt this streamlined acquisition method. The potential spectrum of one-step design-build projects is broad and could involve a performance-based design that complements the efficiencies that a one-step approach can provide in certain situations.

*Comment:* One commenter wrote that DHS should also encourage the U.S. Coast Guard to include recognition of designated Design-Build Professionals in the selection procedures in the acquisition process.

*Response:* DHS agrees. The Coast Guard will include this recommendation in the guidance that it prepares on the one-step turnkey design build guidelines.

## III. Regulatory Analyses

### *A. Executive Order 12866 Assessment*

DHS has determined that this final rule is neither a major rule under 5 U.S.C. 804 nor a significant regulatory action under Executive Order 12866, Regulatory Planning and Review. It therefore does not require an assessment of potential costs and benefits under section 6(a)(3) of that Order, and the Office of Management and Budget has not reviewed it.

### *B. Regulatory Flexibility Act*

Under the Regulatory Flexibility Act (5 U.S.C. 601–612), 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. This final rule is not expected to have a significant economic impact on a substantial number of small entities within the meaning of the Regulatory Flexibility Act.

### List of Subjects in 48 CFR Part 3036

Government procurement.

■ Therefore, DHS amends 48 CFR part 3036 as set forth below:

## PART 3036—CONSTRUCTION AND ARCHITECT–ENGINEER CONTRACTS

■ 1. The authority citation for 48 CFR part 3036 continues to read as follows:

**Authority:** 41 U.S.C. 418(a) and (b).

■ 2. Add subpart 3036.1 to read as follows:

**Subpart 3036.1—General**

Sec.
3036.104 Policy.
3036.104–90 Authority for one-step turn-key design-build contracting for the United States Coast Guard (USCG).

## Subpart 3036.1—General

### 3036.104 Policy.

### 3036.104–90 Authority for one-step turn-key design-build contracting for the United States Coast Guard (USCG).

The Head of the Contracting Activity (HCA) of the U.S. Coast Guard may use one-step turn-key selection procedures to enter into fixed-price design-build contracts in accordance with 14 U.S.C. 677.

**Thomas W. Essig,**

*Chief Procurement Officer, Department of Homeland Security.*

[FR Doc. E8–9900 Filed 5–5–08; 8:45 am]

BILLING CODE 4410–10–P

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## DEPARTMENT OF COMMERCE

## National Oceanic and Atmospheric Administration

## 50 CFR Part 622

**[Docket No. 040205043–4043–01]**

**RIN 0648–XG27**

## Fisheries of the Caribbean, Gulf of Mexico, and South Atlantic; Reef Fish Fishery of the Gulf of Mexico; Closure of the 2008 Deepwater Grouper Commercial Fishery

**AGENCY:** National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

**ACTION:** Temporary rule; closure.

**SUMMARY:** NMFS closes the commercial fishery for deepwater grouper (misty grouper, snowy grouper, yellowedge grouper, warsaw grouper, and speckled hind) in the exclusive economic zone (EEZ) of the Gulf of Mexico. NMFS has determined that the deepwater grouper quota for the commercial fishery will have been reached by May 10, 2008. This closure is necessary to protect the deepwater grouper resource.

**DATES:** Closure is effective 12:01 a.m., local time, May 10, 2008, until 12:01 a.m., local time, on January 1, 2009.

**FOR FURTHER INFORMATION CONTACT:** Britni Tokotch, telephone 727–824–5305, fax 727–824–5308, *e-mail Britni.Tokotch@noaa.gov.*

**SUPPLEMENTARY INFORMATION:** The reef fish fishery of the Gulf of Mexico is managed under the Fishery Management Plan for the Reef Fish Resources of the Gulf of Mexico (FMP). The FMP was prepared by the Gulf of Mexico Fishery Management Council and is implemented under the authority of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) by regulations at 50 CFR part 622. Those regulations set the commercial quota for deepwater grouper in the Gulf of Mexico at 1.02 million lb (463,636 kg) for the current fishing year, January 1 through December 31, 2008.

Under 50 CFR 622.43(a), NMFS is required to close the commercial fishery

for a species or species group when the quota for that species or species group is reached, or is projected to be reached, by filing a notification to that effect with the Office of the **Federal Register**. Based on current statistics, NMFS has determined that the available commercial quota of 1.02 million lb (463,636 kg) for deepwater grouper will be reached on or before May 10, 2008. Accordingly, NMFS is closing the commercial deepwater grouper fishery in the Gulf of Mexico EEZ from 12:01 a.m., local time, on May 10, 2008, until 12:01 a.m., local time, on January 1, 2009. The operator of a vessel with a valid commercial vessel permit for Gulf reef fish having deepwater grouper aboard must have landed and bartered, traded, or sold such deepwater grouper prior to 12:01 a.m., local time, May 10, 2008.

During the closure, the bag and possession limits specified in 50 CFR 622.39(b) apply to all harvest or possession of deepwater grouper in or from the Gulf of Mexico EEZ, and the sale or purchase of deepwater grouper taken from the EEZ is prohibited. Vessels with commercial quantities of reef fish on board are prohibited from retaining a recreational bag limit. The prohibition on sale or purchase does not apply to sale or purchase of deepwater grouper that were harvested, landed ashore, and sold prior to 12:01 a.m., local time, May 10, 2008, and were held in cold storage by a dealer or processor.

## Classification

This action responds to the best available information recently obtained from the fishery. The Assistant Administrator for Fisheries, NOAA, (AA), finds good cause to waive the requirement to provide prior notice and opportunity for public comment pursuant to the authority set forth at 5 U.S.C. 553(b)(B) as such prior notice and opportunity for public comment is unnecessary and contrary to the public interest. Such procedures would be unnecessary because the rule itself has already been subject to notice and comment, and all that remains is to notify the public of the closure. Allowing prior notice and opportunity for public comment is contrary to the public interest because of the need to immediately implement this action to protect the fishery since the capacity of the fishing fleet allows for rapid harvest of the quota. Prior notice and opportunity for public comment would require time and would potentially result in a harvest well in excess of the established quota.

For the aforementioned reasons, the AA also finds good cause to waive the 30-day delay in the effectiveness of this action under 5 U.S.C. 553(d)(3).

This action is taken under 50 CFR 622.43(a) and is exempt from review under Executive Order 12866.

**Authority:** 16 U.S.C. 1801 *et seq.*

Dated: April 30, 2008.

**Emily H. Menashes,**

*Acting Director, Office of Sustainable Fisheries, National Marine Fisheries Service.*

[FR Doc. E8–9886 Filed 5–5–08; 8:45 am]

BILLING CODE 3510–22–S

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## DEPARTMENT OF COMMERCE

## National Oceanic and Atmospheric Administration

## 50 CFR Part 622

**[Docket No. 040205043–4043–01]**

**RIN 0648–XG71**

## Fisheries of the Caribbean, Gulf of Mexico, and South Atlantic; Reef Fish Fishery of the Gulf of Mexico; Closure of the 2008 Commercial Fishery for Tilefishes

**AGENCY:** National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

**ACTION:** Temporary rule; closure.

**SUMMARY:** NMFS closes the commercial fishery for tilefishes in the exclusive economic zone (EEZ) of the Gulf of Mexico. NMFS has determined that the quota for the commercial fishery for tilefishes will have been reached by May 10, 2008. This closure is necessary to protect the tilefish resource.

**DATES:** Closure is effective 12:01 a.m., local time, May 10, 2008, until 12:01 a.m., local time, on January 1, 2009.

**FOR FURTHER INFORMATION CONTACT:** Britni Tokotch, telephone 727–824–5305, fax 727–824–5308, e-mail *Britni.Tokotch@noaa.gov*.

**SUPPLEMENTARY INFORMATION:** The reef fish fishery of the Gulf of Mexico is managed under the Fishery Management Plan for the Reef Fish Resources of the Gulf of Mexico (FMP). The FMP was prepared by the Gulf of Mexico Fishery Management Council and is implemented under the authority of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) by regulations at 50 CFR part 622. Those regulations set the commercial quota for tilefishes in the Gulf of Mexico at 440,000 lb (200,000 kg) for the current fishing year, January 1 through December 31, 2008.

Under 50 CFR 622.43(a), NMFS is required to close the commercial fishery for a species or species group when the quota for that species or species group is reached, or is projected to be reached, by filing a notification to that effect with the Office of the Federal Register. Based on current statistics, NMFS has determined that the available commercial quota of 440,000 lb (200,000 kg) for tilefishes will be reached on or before May 10, 2008. Accordingly, NMFS is closing the commercial fishery for tilefishes in the Gulf of Mexico EEZ from 12:01 a.m., local time, on May 10, 2008, until 12:01 a.m., local time, on January 1, 2009. The operator of a vessel with a valid commercial vessel permit for Gulf reef fish having tilefishes aboard must have landed and bartered, traded, or sold such tilefishes prior to 12:01 a.m., local time, May 10, 2008.

During the closure, the bag and possession limits specified in 50 CFR 622.39(b) apply to all harvest or possession of tilefishes in or from the Gulf of Mexico EEZ, and the sale or purchase of tilefishes taken from the EEZ is prohibited. The prohibition on sale or purchase does not apply to sale or purchase of tilefishes that were harvested, landed ashore, and sold prior to 12:01 a.m., local time, May 10, 2008, and were held in cold storage by a dealer or processor. Vessels with commercial quantities of other Gulf reef fish on board are prohibited from retaining a recreational bag limit of tilefishes.

## Classification

This action responds to the best available information recently obtained from the fishery. The Assistant Administrator for Fisheries, NOAA, (AA), finds good cause to waive the requirement to provide prior notice and opportunity for public comment pursuant to the authority set forth at 5 U.S.C. 553(b)(B) as such prior notice and opportunity for public comment is unnecessary and contrary to the public interest. Such procedures would be unnecessary because the rule itself has already been subject to notice and comment, and all that remains is to notify the public of the closure. Allowing prior notice and opportunity for public comment is contrary to the public interest because of the need to immediately implement this action to protect the fishery since the capacity of the fishing fleet allows for rapid harvest of the quota. Prior notice and opportunity for public comment would require time and would potentially result in a harvest well in excess of the established quota.

For the aforementioned reasons, the AA also finds good cause to waive the 30-day delay in the effectiveness of this action under 5 U.S.C. 553(d)(3).

This action is taken under 50 CFR 622.43(a) and is exempt from review under Executive Order 12866.

**Authority:** 16 U.S.C. 1801 *et seq.*

Dated: April 30, 2008.

**Emily H. Menashes,**

*Acting Director, Office of Sustainable Fisheries, National Marine Fisheries Service.*

[FR Doc. E8–9878 Filed 5–5–08; 8:45 am]

**BILLING CODE 3510–22–S**

## DEPARTMENT OF COMMERCE

## National Oceanic and Atmospheric Administration

## 50 CFR Part 648

**[Docket No. 010319075–1217–02]**

**RIN 0648–XF91**

## Fisheries of the Northeastern United States; Tilefish Fishery; Quota Harvested for Full-time Tier 2 Category

**AGENCY:** National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

**ACTION:** Temporary rule; tilefish Full-time Tier 2 permit category closure.

**SUMMARY:** NMFS announces that the percentage of the tilefish annual total allowable landings (TAL) available to the tilefish Full-time tier 2 permit category for the 2008 fishing year will be harvested on May 8, 2008. Therefore, commercial vessels fishing under the tilefish Full-time Tier 2 permit may not harvest tilefish from within the Golden Tilefish Management Unit for the remainder of the 2008 fishing year (through October 31, 2008) as of May 8, 2008. Regulations governing the tilefish fishery require publication of this notification to advise the public of this closure.

**DATES:** Effective 0001 hrs local time, May 8, 2008, through 2400 hrs local time, October 31, 2008.

**FOR FURTHER INFORMATION CONTACT:** Timothy A. Cardiasmenos, Fishery Policy Analyst, at (978) 281–9204.

**SUPPLEMENTARY INFORMATION:** Regulations governing the tilefish fishery are found at 50 CFR part 648. The regulations require annual specification of a TAL for federally permitted tilefish vessels harvesting tilefish from within the Golden Tilefish Management Unit. The Golden Tilefish Management Unit is defined as an area of the Atlantic Ocean from the latitude of the VA and NC border (36°33.36′ N. lat.), extending eastward from the shore to the outer boundary of the exclusive economic zone, and northward to the U.S.-Canada border. After 5 percent of the TAL is deducted to reflect landings by vessels issued an open-access Incidental permit category, and after up to 3 percent of the TAL is set aside for research purposes, should research TAL be set aside, the remaining TAL is distributed among three tilefish limited access permit categories: Full-time tier 1 category (66 percent), Full-time tier 2 category (15 percent), and the Part-time category (19 percent).

The TAL for tilefish for the 2008 fishing year was set at 1.995 million lb (905,172 kg) and then adjusted downward by 5 percent to 1,895,250 lb (859,671 kg) to account for incidental catch. There was no research set-aside for the 2007 fishing year. Thus, the Full-time Tier 2 permit quota for the 2008 fishing year, which is equal to 15 percent of the TAL, was specified at 284,288 lb (106,108 kg). Notification of the 2008 Full-time Tier 2 category quota for the 2008 fishing year was sent in a Permit Holder Letter to all tilefish limited access permit holders on October 18, 2007.

The Administrator, Northeast Region, NMFS (Regional Administrator) monitors the commercial tilefish quota for each fishing year using dealer reports, vessel catch reports, and other available information to determine when the quota for each limited access permit category is projected to have been harvested. NMFS is required to publish notification in the **Federal Register** notifying commercial vessels and dealer permit holders that, effective upon a specific date, the tilefish TAL for the specific limited access category has been harvested and no commercial quota is available for harvesting tilefish by that category for the remainder of the fishing year, from within the Golden Tilefish Management Unit.

The Regional Administrator has determined, based upon dealer reports and other available information, that the 2008 tilefish TAL for the Full-time Tier 2 category will be harvested as of May 8, 2008. Therefore, effective 0001 hr local time, May 8, 2008, further landings of tilefish harvested from within the Golden Tilefish Management Unit by tilefish vessels holding Full-time Tier 2 category Federal fisheries permits are prohibited through October 31, 2008. The 2009 fishing year for commercial tilefish harvest will open on November 1, 2008. Federally permitted dealers are also advised that, effective May 8, 2008, they may not purchase tilefish from Full-time Tier 2 category federally permitted tilefish vessels who land tilefish harvested from within the Golden Tilefish Management Unit for the remainder of the 2008 fishing year (through October 31, 2008).

### Classification

The Assistant Administrator for Fisheries, NOAA (AA), finds good cause pursuant to 5 U.S.C. 553(b)(B) to waive prior notice and the opportunity for public comment because it would be contrary to the public interest. If implementation of this closure were delayed to solicit prior public comment, the quota for this category would be exceeded, given the rate of harvest of tilefish for vessels in this category. This would conflict with the agency's legal obligation under section 304(e) of the Magnuson-Stevens Act to prevent overfishing and to rebuild this fishery as soon as possible. Overage of the Full-time tier 2 category quota that occurs in a given fishing year is subtracted from the quota for this category in the following fishing year. Thus, allowing an overage would have a negative economic impact on owners of vessels permitted in the Full-time tier 2 category, who did not contribute to the overage this year, and who would fish during the next fishing year. The AA further finds, pursuant to 5 U.S.C. 553(d)(3), good cause to waive the 30-day delayed effectiveness period for the reasons stated above.

**Authority:** 16 U.S.C. 1801 *et seq.*

Dated: April 30, 2008.

**Emily H. Menashes,**

*Acting Director, Office of Sustainable Fisheries, National Marine Fisheries Service.*

[FR Doc. 08–1218 Filed 5–1–08; 1:59 pm]

**BILLING CODE 3510–22–S**

# Proposed Rules

Federal Register
Vol. 73, No. 88
Tuesday, May 6, 2008

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

### Animal and Plant Health Inspection Service

### 7 CFR Part 319

**[Docket No. 03–002–7]**

**RIN 0579–AC55**

## Importation of Nursery Stock; Postentry Quarantine Requirements for Potential Hosts of Chrysanthemum White Rust and Definition of From

**AGENCY:** Animal and Plant Health Inspection Service, USDA.

**ACTION:** Proposed rule; withdrawal.

**SUMMARY:** We are withdrawing a proposed rule that would have amended the nursery stock regulations to provide an option in which the postentry quarantine growing period for articles of *Chrysanthemum* spp., *Leucanthemella serotina*, and *Nipponanthemum nipponicum* that are imported from certain locations would have been reduced from 6 months to 2 months, provided that the grower of those plants implemented a systems approach to prevent the imported articles from being infected with chrysanthemum white rust. The proposed rule would also have amended the definition of *from*. We are taking this action after considering the comments we received following the publication of the proposed rule.

**FOR FURTHER INFORMATION CONTACT:** Dr. Arnold T. Tschanz, Senior Import Specialist, Plants for Planting Import and Analysis, Commodity Import Analysis and Operations, PPQ, APHIS, 4700 River Road Unit 133, Riverdale, MD 20737–1236; (301) 734–5306.

**SUPPLEMENTARY INFORMATION:**

### Background

On August 8, 2007, we published in the **Federal Register** (72 FR 44425–44433, Docket No. 03–002–4) a proposed rule [1] that would have amended the nursery stock regulations in 7 CFR part 319 to provide an option in which the postentry quarantine growing period for articles of *Chrysanthemum* spp., *Leucanthemella serotina*, and *Nipponanthemum nipponicum* that are imported from certain locations would have been reduced from 6 months to 2 months, provided that the grower of those plants implemented a systems approach in the country of origin to prevent the imported articles from being infected with chrysanthemum white rust. The proposed rule would also have amended the definition of *from* in § 319.37–1 to read: ''An article is considered to be 'from' the country where it, or the plants from which the article was derived, was actively growing for at least 9 months immediately prior to export.''

We solicited comments concerning our proposal for 60 days ending on October 9, 2007. We reopened and extended the deadline for comments until November 26, 2007, in a document published in the **Federal Register** on October 26, 2007 (Docket No. 03–002–5, 72 FR 60790). We received 13 comments by that date. They were from producers, exporters, researchers, and representatives of local, State, and foreign governments.

While some commenters favored implementing the proposed option under which the postentry quarantine growing period for articles of *Chrysanthemum* spp., *Leucanthemella serotina*, and *Nipponanthemum nipponicum* that are imported from certain locations would have been reduced from 6 months to 2 months, others opposed it. Representatives of local and State governments stated that it would be difficult to conduct the required postentry quarantine inspection and produce the appropriate documentation within the 2-month timeframe. One commenter cited the difficulty of detecting the disease at low levels. One commenter stated that it would be difficult to keep shipments of cuttings of *Chrysanthemum* spp., *Leucanthemella serotina*, and *Nipponanthemum nipponicum* that arrive at different times segregated in a postentry quarantine facility. Two commenters stated that the proposed rule should apply only to the importation of breeder material, rather than production material. One commenter stated that it would be difficult to enforce the requirements of the proposed systems approach at foreign production facilities.

Two commenters referred to a separate risk assessment being prepared by the Plant Protection and Quarantine program's Center for Plant Health Science and Technology on the subject of chrysanthemum white rust, and suggested that we wait to take further action pending the completion of that assessment.

Four commenters on the proposed rule addressed the definition of *from.* All were opposed to the revised definition. Commenters raised issues regarding accounting for nursery stock production practices under which plants are shipped after growing periods of less than a 9-month growing cycle and pointed out inconsistency between the 9-month growing period we proposed to require for an article to be considered ''from'' a country and the typical 2-year postentry quarantine period required in § 319.37–7. One commenter urged us to adopt an incremental approach to revising the definition, rather than implementing it all at once.

After considering all the comments we received, we have concluded that it is necessary to reexamine the issues associated with the importation into the United States of articles of *Chrysanthemum* spp., *Leucanthemella serotina*, and *Nipponanthemum nipponicum* under the 2-month postentry quarantine period and the issues associated with revising the definition of *from*. Therefore, we are withdrawing the August 8, 2007, proposed rule referenced above. The concerns and recommendations of all the commenters will be considered if any new proposed regulations regarding the importation of articles of *Chrysanthemum* spp., *Leucanthemella serotina*, and *Nipponanthemum nipponicum* or the definition of *from* are developed.

**Authority:** 7 U.S.C. 450, 7701–7772, and 7781–7786; 21 U.S.C. 136 and 136a; 7 CFR 2.22, 2.80, and 371.3.

[1] To view the proposed rule and the comments we received, go to *http://www.regulations.gov/fdmspublic/component/main?main=DocketDetail&d=APHIS–2005–0081*.

Done in Washington, DC, this 30th day of April 2008.

**Kevin Shea,**

*Acting Administrator, Animal and Plant Health Inspection Service.*

[FR Doc. E8–9968 Filed 5–5–08; 8:45 am]

**BILLING CODE 3410–34–P**

## DEPARTMENT OF TRANSPORTATION

## Federal Aviation Administration

## 14 CFR Part 39

**[Docket No. FAA–2008–0497; Directorate Identifier 2007–NM–096–AD]**

**RIN 2120–AA64**

## Airworthiness Directives; McDonnell Douglas Model DC–8–61, DC–8–61F, DC–8–63, DC–8–63F, DC–8–71F, and DC–8–73F Airplanes

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

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** The FAA proposes to adopt a new airworthiness directive (AD) for certain McDonnell Douglas Model DC–8–61, DC–8–61F, DC–8–63, DC–8–63F, DC–8–71F, and DC–8–73F airplanes. For certain airplanes, this proposed AD would require non-destructive testing (NDT) to detect cracks of the door jamb corners of the forward and aft service doors, and doing applicable related investigative and corrective actions. For certain other airplanes, this proposed AD would require inspecting and repairing if necessary or replacing previously repaired door jamb corners with an applicable repair. This proposed AD results from reports of numerous cases of cracks in the skin at the door jamb corners of the forward and aft service doors. We are proposing this AD to detect and correct fatigue cracking of door jamb corners of the forward and aft service doors, which could adversely affect the structural integrity of the airplane.

**DATES:** We must receive comments on this proposed AD by June 20, 2008.

**ADDRESSES:** You may send comments by any of the following methods:

- *Federal eRulemaking Portal:* Go to *http://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:* U.S. Department of Transportation, Docket Operations, M–30, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue, SE., Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this AD, contact Boeing Commercial Airplanes, Long Beach Division, 3855 Lakewood Boulevard, Long Beach, California 90846, Attention: Data and Service Management, Dept. C1–L5A (D800–0024).

### Examining the AD Docket

You may examine the AD docket on the Internet at *http://www.regulations.gov*; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (telephone 800–647–5527) is in the **ADDRESSES** section. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Jon Mowery, Aerospace Engineer, Airframe Branch, ANM–120L, FAA, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California 90712–4137; telephone (562) 627–5322; fax (562) 627–5210.

**SUPPLEMENTARY INFORMATION:**

### Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the **ADDRESSES** section. Include ''Docket No. FAA–2008–0497; Directorate Identifier 2007–NM–096–AD'' at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to *http://www.regulations.gov,* including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

### Discussion

We have received reports of numerous cases of cracks found in the skin at the door jamb corners of forward and aft service doors, on certain McDonnell Douglas Model DC–8–61, DC–8–61F, DC–8–63, DC–8–63F, DC–8–71F, and DC–8–73F airplanes. Investigation revealed that cracks were caused by metal fatigue. Fatigue cracking of door jamb corners of the forward and aft service doors, if not detected and corrected, could adversely affect the structural integrity of the airplane.

### Relevant Service Information

We have reviewed Boeing Alert Service Bulletin DC8–53A082, dated February 6, 2007. For certain airplanes, the service bulletin describes doing initial non-destructive testing (NDT) to detect cracks of the door jamb corners of the forward and aft service doors, and doing applicable related investigative and corrective actions. The applicable related investigative actions include repeating the NDT or doing repetitive inspections of the repaired door jamb corners, as applicable. The corrective actions include repairing the door jamb corners, and contacting Boeing for certain instructions, as applicable. For certain other airplanes, the service bulletin describes procedures for contacting Boeing for repair or inspection instructions or replacing previously repaired door jamb corners with an applicable repair.

The service bulletin specifies the following compliance times:

- For the initial NDT: Within 2,000 landings or 3 years, whichever occurs first.
- For repetitive NDTs or inspections: Between 532 and 11,325 landings depending on the NDT/inspection method.
- For corrective actions: Before further flight or before the repeat interval for the inspection method depending on the repair condition.

Accomplishing the actions specified in the service information is intended to adequately address the unsafe condition.

### FAA's Determination and Requirements of the Proposed AD

We have evaluated all pertinent information and identified an unsafe condition that is likely to exist or develop on other airplanes of this same type design. For this reason, we are proposing this AD, which would require accomplishing the actions specified in the service information described previously, except as discussed under ''Differences Between the Proposed AD and Service Bulletin.''

### Differences Between the Proposed AD and Service Bulletin

Although the service bulletin recommends that operators of airplanes identified as Group 1, Configuration 3, contact the manufacturer for repeat inspection instructions, this proposed

AD would require operators to inspect and repair using a method approved by the FAA.

The service bulletin recommends that operators of airplanes identified as Group 1, Configuration 4, contact the manufacturer for instructions on how to repair certain conditions, but this proposed AD would require repairing those conditions in one of the following ways:

- Using a method that we approve; or
- Using data that meet the certification basis of the airplane, and that have been approved by an Authorized Representative for the Boeing Commercial Airplanes Delegation Option Authorization Organization whom we have authorized to make those findings.

## Costs of Compliance

There are about 299 airplanes of the affected design in the worldwide fleet. This proposed AD would affect about 55 airplanes of U.S. registry. The proposed testing would take about 1 work-hour per airplane, at an average labor rate of $80 per work-hour. Based on these figures, the estimated cost of the proposed AD for U.S. operators is $4,400, or $80 per airplane, per testing cycle.

## 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.

We are 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

We have determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would 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 the proposed regulation:

1. Is not a ''significant regulatory action'' under Executive Order 12866;
2. Is not a ''significant rule'' under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); 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.

We prepared a regulatory evaluation of the estimated costs to comply with this proposed AD and placed it in the AD docket. See the **ADDRESSES** section for a location to examine the regulatory evaluation.

## List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Safety.

## The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 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 Federal Aviation Administration (FAA) amends § 39.13 by adding the following new airworthiness directive (AD):

**McDonnell Douglas**: Docket No. FAA–2008–0497; Directorate Identifier 2007–NM–096–AD.

#### Comments Due Date

(a) The FAA must receive comments on this AD action by June 20, 2008.

#### Affected ADs

(b) As specified in paragraph (g) of this AD, this AD affects certain requirements of AD 93–01–15, amendment 39–8469.

#### Applicability

(c) This AD applies to McDonnell Douglas Model DC–8–61, DC–8–61F, DC–8–63, DC–8–63F, DC–8–71F, and DC–8–73F airplanes, certificated in any category; as identified in Boeing Alert Service Bulletin DC8–53A082, dated February 6, 2007.

#### Unsafe Condition

(d) This AD results from reports of numerous cases of cracks in the skin at the door jamb corners of forward and aft service doors. We are issuing this AD to detect and correct fatigue cracking of door jamb corners of the forward and aft service doors, which could adversely affect the structural integrity of the airplane.

#### Compliance

(e) You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

#### Testing, Inspecting, Repairing, and Related Investigative and Corrective Actions

(f) At the applicable compliance time and repeat intervals listed in Tables 1 through 5 inclusive of paragraph 1.E., ''Compliance,'' of Boeing Alert Service Bulletin DC8–53A082, dated February 6, 2007; except where the service bulletin specifies a compliance time after the date on the service bulletin, this AD requires compliance within the specified compliance time after the effective date of this AD: Do the actions specified in paragraph (f)(1), (f)(2), or (f)(3) of this AD, as applicable.

(1) For airplanes identified as Group 1, Configurations 1 and 2, in the service bulletin: Do the testing and related investigative and corrective actions by accomplishing all the applicable actions specified in the Accomplishment Instructions of the service bulletin.

(2) For airplanes identified as Group 1, Configuration 3, in the service bulletin: Inspect and repair discrepancies in accordance with a method approved by the Manager, Los Angeles Aircraft Certification Office (ACO), FAA.

(3) For airplanes identified as Group 1, Configuration 4, in the service bulletin: Do the actions specified in paragraph (f)(3)(i) or (f)(3)(ii) of this AD.

(i) Repair door jamb corners of the service door using a method approved in accordance with the procedures specified in paragraph (h) of this AD.

(ii) Replace the previously repaired door jamb corners with an applicable repair in accordance with the Accomplishment Instructions of the service bulletin.

#### Compliance With Certain Requirements of AD 93–01–15

(g) Accomplishment of the applicable actions required by paragraph (f) of this AD constitutes compliance with certain requirements of AD 93–01–15, as it pertains to the affected areas of principal structural elements 53.08.039 and 53.08.040 of McDonnell Douglas DC–8 Supplemental Inspection Document, dated December 1985.

#### Alternative Methods of Compliance (AMOCs)

(h)(1) The Manager, Los Angeles ACO has the authority to approve AMOCs for this AD, if requested in accordance with the procedures found in 14 CFR 39.19.

(2) To request a different method of compliance or a different compliance time for this AD, follow the procedures in 14 CFR 39.19. Before using any approved AMOC on any airplane to which the AMOC applies, notify your appropriate principal inspector (PI) in the FAA Flight Standards District Office (FSDO), or lacking a PI, your local FSDO.

(3) An AMOC that provides an acceptable level of safety may be used for any repair required by this AD, if it is approved by an Authorized Representative for the Boeing

Commercial Airplanes Delegation Option Authorization Organization who has been authorized by the Manager, Los Angeles ACO, to make those findings. For a repair method to be approved, the repair must meet the certification basis of the airplane and 14 CFR 25.571, Amendment 45, and the approval must specifically refer to this AD.

Issued in Renton, Washington, on April 23, 2008.

**Ali Bahrami,**

*Manager, Transport Airplane Directorate, Aircraft Certification Service.*

[FR Doc. E8–9883 Filed 5–5–08; 8:45 am]

**BILLING CODE 4910–13–P**

## DEPARTMENT OF HOMELAND SECURITY

## Coast Guard

## 33 CFR Part 165

**[Docket No. USCG–2007–0074]**

**RIN 1625–AA87**

## Safety and Security Zones: New York Marine Inspection Zone and Captain of the Port Zone

**AGENCY:** Coast Guard, DHS.

**ACTION:** Notice of proposed rulemaking.

**SUMMARY:** The Coast Guard proposes to modify several aspects of the permanent safety and security zones within the New York Captain of the Port Zone. This action is necessary to consolidate, clarify, and otherwise modify safety and security zone regulations to eliminate unnecessary regulations and better meet the safety and security needs of the New York and New Jersey port community. This action would modify existing safety and security zones, consolidate and modify safety and security zones currently found in separate regulations, and remove certain safety and security zones.

**DATES:** Comments and related material must reach the Docket Management Facility on or before July 7, 2008. Comments sent to the Office of Management and Budget (OMB) on collection of information must reach OMB on or before July 7, 2008.

**ADDRESSES:** You may submit comments identified by Coast Guard docket number USCG–2007–0074 to the Docket Management Facility at the U.S. Department of Transportation. To avoid duplication, please use only one of the following methods:

(1) *Online: http://www.regulations.gov.*

(2) *Mail:* Docket Management Facility (M–30), U.S. Department of Transportation, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue, SE., Washington, DC 20590–0001.

(3) *Hand delivery:* Room W12–140 on the Ground Floor of the West Building, 1200 New Jersey Avenue, SE., Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The telephone number is 202–366–9329.

(4) *Fax:* 202–493–2251.

You must also send comments on collection of information to the Office of Information and Regulatory Affairs, Office of Management and Budget. To ensure that the comments are received on time, the preferred method is by e-mail at *nlesser@omb.eop.gov* or fax at 202–395–6566. An alternate, though slower, method is by U.S. mail to the Office of Information and Regulatory Affairs, Office of Management and Budget, 725 17th Street, NW., Washington, DC 20503, ATTN: Desk Officer, U.S. Coast Guard.

**FOR FURTHER INFORMATION CONTACT:** If you have questions on this proposed rule, call Lieutenant Commander Mike McBrady, Waterways Management Division, Coast Guard Sector New York (718) 354–2353. If you have questions on viewing or submitting material to the docket, call Renee V. Wright, Program Manager, Docket Operations, telephone (202) 366–9826.

**SUPPLEMENTARY INFORMATION:**

### Public Participation and Request for Comments

We encourage you to participate in this rulemaking by submitting comments and related materials. All comments received will be posted, without change, to *http://www.regulations.gov* and will include any personal information that you have provided. We have an agreement with the Department of Transportation (DOT) to use the Docket Management Facility. Please see DOT's ''Privacy Act'' paragraph below.

### Submitting Comments

If you submit a comment, please include the docket number for this rulemaking (USCG–2007–0074), indicate the specific section of this document to which each comment applies, and give the reason for each comment. We recommend that you include your name and a mailing address, an e-mail address, or a phone number in the body of your document so that we can contact you if we have questions regarding your submission. You may submit your comments and material by electronic means, mail, fax, or delivery to the Docket Management Facility at the address under **ADDRESSES**; but please submit your comments and material by only one means. If you submit them by mail or delivery, please submit them in an unbound format, no larger than 8½ by 11 inches, suitable for copying and electronic filing. If you submit them by mail and would like to know that they reached the Facility, please enclose a stamped, self-addressed postcard or envelope. We will consider all comments and material received during the comment period. We may change this proposed rule in view of them.

### Viewing Comments and Documents

To view comments, as well as documents mentioned in this preamble as being available in the docket, go to *http://www.regulations.gov* at any time. Enter the docket number for this rulemaking (USCG–2007–0074) in the Search box, and click ''Go >>.'' You may also visit either the Docket Management Facility in Room W12–140 on the ground floor of the DOT West Building, 1200 New Jersey Avenue, SE., Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays; or the Waterways Management Division, Coast Guard Sector New York, 212 Coast Guard Drive, Staten Island, NY 10305 between 9 a.m. and 3 p.m., Monday through Friday, except Federal holidays.

### Privacy Act

Anyone can 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 the Department of Transportation's Privacy Act Statement in the **Federal Register** published on April 11, 2000 (65 FR 19477), or you may visit *http://DocketsInfo.dot.gov*.

### Public Meeting

We do not now plan to hold a public meeting. But you may submit a request for one to the Docket Management Facility at the address under **ADDRESSES** explaining why one would be beneficial. If we determine that one would aid this rulemaking, we will hold one at a time and place announced by a later notice in the **Federal Register**.

### Background and Purpose

On September 11, 2001, three commercial aircraft were hijacked and flown into the World Trade Center in New York City, and the Pentagon, inflicting catastrophic human casualties and property damage. National security

and intelligence officials warn that future terrorist attacks are likely. The President has continued the national emergencies he declared following the September 11, 2001 terrorist attacks. See, Continuation of the National Emergency with Respect to Certain Terrorist Attacks (72 FR 52465, September 13, 2007); Continuation of the National Emergency With Respect To Persons Who Commit, Threaten To Commit, Or Support Terrorism (72 FR 54205, September 21, 2007). The President also has found pursuant to law, including the Magnuson Act (50 U.S.C. 191 *et seq.*), that the security of the United States is endangered by disturbances in international relations that have existed since the 2001 terrorist attacks and such disturbances continue to endanger such relations. Executive Order 13273 of August 21, 2002, Further Amending Executive Order 10173, as Amended, Prescribing Regulations Relating to the Safeguarding of Vessels, Harbors, Ports, and Waterfront Facilities of the United States (67 FR 56215, September 3, 2002).

Following the September 11th attacks, we published a temporary final rule (66 FR 51558, October 10, 2001) that established a temporary regulated navigation area, and safety and security zones in the New York Marine Inspection and Captain of the Port New York Zones. These measures were taken to safeguard human life, vessels and waterfront facilities from sabotage or terrorist acts. That temporary final rule was subsequently revised (67 FR 16016, April 4, 2002; 67 FR 53310, August 15, 2002) to extend its effective period through December 31, 2002.

On November 27, 2002, we published a notice of proposed rulemaking (NPRM) entitled ''Safety and Security Zones; New York Marine Inspection Zone and Captain of the Port Zone'' in the **Federal Register** (67 FR 70892). The NPRM proposed to revise safety and security zones around designated vessels to include specific regulations for Liquefied Hazardous Gas (LHG) vessels and Designated Vessels and to establish Safety and Security Zones at Indian Point Nuclear Power Station, U.S. Coast Guard Cutters and Shore Facilities, commercial waterfront facilities, Liberty and Ellis Islands, bridge piers and abutments, overhead power cable towers, tunnel ventilator and the New York City Passenger Ship Terminal, Hudson River, NY. We received no letters commenting on the proposed rule. No public hearing was requested and none was held. On January 22, 2003, we published a final rule entitled ''Safety and Security Zones; New York Marine Inspection Zone and Captain of the Port Zone'' in the **Federal Register** (68 FR 2886). That rule established permanent safety and security zones at the locations above.

The Coast Guard (USCG) proposes to make 11 distinct changes to current safety and security zone regulations in 33 CFR part 165 to improve maritime security and reduce unnecessary burdens imposed by current security zones.

*Disestablishment of 33 CFR 165.160:* Safety and security zones around LHG Vessels, LHG Facilities, and Designated Vessels are currently codified in 33 CFR 165.160. This proposed rule would revise and relocate each of these § 165.160 provisions to a single New York Marine Inspection Zone and Captain of the Port safety and security zone regulation found at 33 CFR 165.169, rendering the current regulations found at 33 CFR 165.160 unnecessary. This regulatory change is proposed to consolidate similar regulations for the benefit of enforcement authorities and the regulated public.

*Commercial Waterfront Facilities:* As discussed earlier in this preamble, the safety and security zones around commercial waterfront facilities were made permanent by publication of a final rule in the **Federal Register** on January 22, 2003. This measure provides safety and security zones for, ''* * * all piers, wharves, docks and similar structures to which barge, ferry or other commercial vessels may be secured * * *'' (33 CFR 165.169(a) (3)) These measures were deemed appropriate based on the threat and risk analyses available to the Captain of the Port at the time. The notice of proposed rulemaking for that regulatory action was published in the **Federal Register** on November 27, 2002 (67 FR 70892), in preparation for the expiration of the temporary safety and security zone regulations on December 31, 2002.

On November 25, 2002, President George W. Bush signed into effect Public Law 107–295, the Maritime Transportation Security Act (MTSA) of 2002, which required the Secretary of the Department in which the Coast Guard is operating to issue an interim rule as a temporary regulation to implement the Port Security Section of the Act. To meet this requirement, on July 1, 2003, the Coast Guard published six interim rules in the **Federal Register** (68 FR 39240, 39284, 39292, 39315, 39338, and 39353). To determine the applicability of these regulations to waterfront facilities, the Coast Guard conducted an exhaustive, multi-tiered risk analysis. The details of this assessment can be found in the ''Applicability of National Maritime Security Initiatives'' section of the interim rule titled ''Implementation of National Maritime Security Initiatives'' (68 FR 39240, July 1, 2003).

On October 22, 2003 the Coast Guard published a final rule, entitled ''Facility Security'' in the **Federal Register** (68 FR 60515), establishing permanent regulations for facility security at 33 CFR part 105. These MTSA regulations included specific measures for security at a particular group of waterfront facilities, based on the comprehensive risk-based assessment referenced above. Section 105.200 of 33 CFR requires owners or operators of these facilities to, among other things, designate Facility Security Officers (FSO) for facilities, develop Facility Security Plans (FSP) based on security assessments and surveys, implement security measures specific to the facility's operations, and comply with Maritime Security Levels. Additionally, 33 CFR 105.275 mandates that facilities subject to the MTSA must have the capability to continuously monitor, among other things, the facility's approaches on land and water, and vessels at the facility and areas surrounding the vessels.

A large number of areas that currently fall within the definition of Commercial Waterfront Facility under 33 CFR 165.169 and are thereby protected by a Coast Guard safety and security zone, are areas proposed for or currently designed to provide recreational and public waterway access. A great variety of piers, wharves, docks, and bulkheads, designed and utilized primarily as recreational areas are capable of accepting commercial vessels as currently defined in regulation, even though such operations rarely, if ever, occur. Safety and security zones in these areas unduly restrict the general public's access, cause confusion as to which areas are regulated, and create significant, unwarranted enforcement burdens on Coast Guard and local law enforcement resources. Furthermore, Resolution 05–01 of the U.S. Coast Guard Commandant's Navigation Safety Advisory Council (NAVSAC), contained in the September 2005 NAVSAC Meeting Summary (available online at *http://homeport.uscg.mil*), recommended that the Coast Guard conduct a review of safety and security zones to ensure modification or removal of zones that unduly restrict commercial vessel operations or are no longer needed following enactment of the MTSA, 2002 regulations.

For these reasons, we propose to revise the language governing facility safety and security zones to remove the broad definition currently contained

within the regulations, largely replacing it with the class of facilities determined to require additional security measures by the MTSA regulations developed for this purpose. This tailored class of commercial waterfront facilities would only include those facilities regulated by the MTSA facility security regulations codified in 33 CFR part 105 and those facilities designated as a ''public access facility'' under that definition in 33 CFR 101.105. For public identification purposes, all of these facilities are required to have signs posted along the shoreline, facing the water, indicating that there is a 25-yard waterfront security zone surrounding the facilities.

*Liberty and Ellis Islands:* The current 150-yard security zones around Liberty and Ellis Islands became effective on January 1, 2003, as enacted by a final rule entitled ''Safety and Security Zones; New York Marine Inspection Zone and Captain of the Port Zone'' published in the **Federal Register** (68 FR 2886, January 22, 2003). On October 1, 2003, the United States Department of the Interior's National Park Service requested the 150-yard security zones around Liberty and Ellis Islands, currently found in 33 CFR 165.169(a)(4), be expanded to 400 yards. Additionally, they requested that all recreational vessels and other watercraft be prohibited from anchoring in the area surrounding Liberty and Ellis Islands or at least be restricted to anchoring no closer than 1,000 yards from the islands. They reported that the high volume of boat traffic still authorized to operate in close proximity of the two islands made it difficult to provide a secure environment for these historic sites and the public that routinely visits them. This request was submitted via the U.S. Park Police (USPP) who is responsible for security at the two islands.

On November 25, 2003, the Coast Guard met representatives from the USPP to discuss their proposal. The Coast Guard and USPP agreed upon the following conditions for the proposed expansion of the boundary of the safety/security zone from 150 yards to 400 yards:

- Marine events that have normally been held within 400 yards of either island would be allowed to continue after the marine event application is approved by the Captain of the Port New York.
- No new marine events would be authorized without collaborative approval of both the USCG and USPP.
- The USPP would provide unclassified information regarding their blast radius data and security information for public dissemination.
- The USPP would share technology links with the Coast Guard Vessel Traffic Center New York to enhance security.
- An additional meeting would be scheduled with annual event sponsors and sailing schools to discuss these issues and to provide alternative locations for their vessels and events.

On December 4, 2003, the Coast Guard met with the USPP, Manhattan Sailing Club, Manhattan Sailing School, and the Sandy Hook Bay Catamaran Club. The Jersey City Office of Cultural Affairs and the Liberty World Challenge sponsor were invited but could not attend. Over 50 marine events are held each year within the proposed expanded security zone. Six event sponsors hold most of these events and the majority of these are sponsored by the Manhattan Yacht Club in the form of weekly sailing regattas.

The USPP reiterated their request for the zone expansion to 400 yards due to a threat assessment conducted by the U.S. Department of Defense's Defense Threat Reduction Agency. The analysis concluded that an explosion from a vessel within close proximity to Liberty or Ellis Island would result in loss of life and injury to visitors and staff on the islands as well as severe structural damage to the Statue of Liberty and numerous historic buildings on Ellis Island. These include the American Family Immigration History Center containing manifests of 25 million immigrants, passengers, and crew members who entered New York Harbor between 1892 and 1924 and 30 other remaining buildings planned for reuse. The plan is available online at: *http://parkplanning.nps.gov/projectHome.cfm?parkID=277&projectId=18591.* Information from the Defense Threat Reduction Agency assessment is available in the docket available at the location under **ADDRESSES**. The proposed expanded security zone would greatly reduce the potential impacts of such a blast and improve the USPP's response capability to incursions of the security zone.

The Coast Guard and USPP agreed to the following conditions pending establishment of the proposed expanded security zone:

- Annual events would be authorized upon review, and approval of, the sponsor's marine event application. This review would additionally include a review of all personnel and equipment participating within the zone using the measures for granting security zone access at all other security zones within the Captain of the Port Zone.
- Only new events with a regional or national significance would be authorized and only after both the Coast Guard and USPP approve the request.
- The Statue of Liberty Race, sponsored by the Sandy Hook Bay Catamaran Club, would be required to place buoys at the site of the current 150-yard security zone to help participants maintain a distance of 150 yards from the Islands during the race.

At the December 4, 2003, meeting, and in a follow-up letter dated December 8, 2003, the Manhattan Sailing Club Commodore questioned the effectiveness of the proposed zone in a realistic threat situation. He believed the current 150-yard security zones were to be temporary measures and was adamantly opposed to their expansion. He stated that the protected cove north of Ellis Island is critical to all local sailing school operations as it provided the only waters in the harbor out of the commercial shipping lanes with enough depth and protection from the current. He stated that the proposed expanded zone would force recreational vessels into the shipping channels and ''significantly impact the quality of life'' of NYC recreational sailors. He also stated that security measures had been reduced at the Holland Tunnel and the AT&T Building while heavy barriers at the New York Stock Exchange had been replaced with attractive iron railings and that there had been no new justification to put forth any expansion of the security zones in New York Harbor. Additionally, he asked why there is any security zone around Ellis Island as it is not the same target threat and does not have the same security needs.

In a subsequent follow-up letter dated December 18, 2003, the Commodore stated that the sailing club held an emergency Board of Directors meeting on December 15, 2003. It was the Board's opinion that the security zones should not be increased as they had not seen any evidence why an increase would be in the best interests of the harbor. Along with the previously stated remarks they also stated the club had invested more than $500,000 in their mooring barge to the north of Ellis Island for club activities and that any expansion of the security zone or rescinding of the Federally Designated Anchorages would make it no longer feasible to moor their sailing barge in the cove and would jeopardize their ability to generate income to repay construction loans.

On December 29, 2003, the USCG responded to the two letters submitted by the Manhattan Sailing Club. The Coast Guard stated that the disestablishment of the current 150-yard security zones around Liberty and Ellis

Islands were not feasible at that time and would likely remain in effect for an undetermined time.

On January 14, 2004, the USCG notified the USPP, in consultation with the First Coast Guard District Homeland Security Office, that the USCG would propose the security zones be expanded around Liberty and Ellis Islands out to 400-yards, with the exception that the northern boundary of Ellis Island would only extend 250 yards, being that from a maritime Homeland Security perspective Ellis Island is not as great a security risk as is the Statue of Liberty. The increase of 100 yards on the north side of Ellis Island would allow for the continued recreational use of the Manhattan Sailing Club barge by the sailing community.

On January 27, 2004, the USPP submitted a letter to the USCG reiterating their request for a 400-yard security zone around Liberty and Ellis Islands due to the Blast Analysis discussed above. The USPP also confirmed they would notify the USCG regarding special events that involve either Liberty or Ellis Island when additional ferries would be in use.

On February 24, 2004, the Coast Guard received another letter from the USPP. The letter stated that although the 400-yard zone around both islands was preferred, the USPP felt the 250-yard zone north of Ellis Island was acceptable and would hopefully satisfy the concerns of all interested parties. The USPP agreed to host a public meeting with interested members of the maritime community to discuss the security zone expansion around Liberty and Ellis Island, and provide the Coast Guard with final recommendations following that meeting. Subsequently, the USPP became involved in extensive shore side security improvements surrounding the reopening of Liberty Island to visitors, and the public meeting concerning waterside security enhancements was postponed pending final resolution of those more immediate security concerns.

In September 2005, presentations concerning proposed changes to the current security zones were given to the New York/New Jersey Area Maritime Security Committee and the Harbor Safety, Navigation and Operations Committee. Other stakeholders in the maritime community were also reengaged. Following a meeting between the Coast Guard, the USPP, and the Department of Defense (DoD) Threat Reduction Agency, new security zone dimensions were developed that balanced the security requirements of the USPP with the desires of the maritime community.

As an outcome of these discussions, the Coast Guard proposes to merge the existing Liberty and Ellis Island security zones, concurrent to an expansion of the Liberty Island Zone, in order to provide the minimum distances required to ensure the protection of these national monuments.

*NYC Passenger Ship Terminal:* The NYC Passenger Ship Terminal safety and security zones are currently codified at 33 CFR 165.169(a)(6). The area covered by the current safety and security zone extends over 250 yards from the facility. However, this zone is only enforced when cruise ships are present.

In the interest of protecting this high-interest facility, we propose to revise the regulation to make this zone subject to enforcement at all times. In so doing, and to provide for the safe use of the waterway by all parties, the dimensions of this permanent zone would be significantly reduced to reflect the current protection needs of the Passenger Ship Terminal.

The proposed revision will reduce the zone size to extend up to 150 yards into the waterway. The northern boundary of the proposed zone would move from Pier 96 south to approximately 50 yards north of Pier 92, opening a 50-yard band of waterway for public access to the south face of Pier 94. The southern boundary would be moved north from Pier 84 to include a 25-yard perimeter south of the Intrepid Sea, Air, and Space Museum, opening a 50-yard band of waterway for public access north of Pier 84.

A permanently activated zone in this area is necessary, in part, due to the varied mooring configurations of cruise ships parallel to and inside the Passenger Ship Terminal Piers. Vessels transiting on the Hudson River cannot always easily judge whether ships are berthed, and thereby whether the current safety and security zone is activated and therefore subject to enforcement. This fact also justifies the maintenance of a zone greater than the 25-yard MTSA Facility zone, sufficient for other cruise ship berthing facilities at times where no cruise ship is present. A permanent zone would also allow the FSO at the Passenger Ship Terminal to work with the Captain of the Port to remove suspicious vessels, even when no cruise ship is at berth.

*LHG Vessels:* Safety and security zones for LHG Vessels are currently codified in 33 CFR 165.160. For reasons discussed elsewhere in this preamble, we propose to move these regulations with revisions to the regulations found at 33 CFR 165.169. Revisions are also proposed to provide a detailed definition of ''LHG Vessel,'' and to ensure the regulation conforms to enforcement practices. The language regarding LHG Facilities will be removed, as these facilities will continue to be protected by safety and security zones contained in 33 CFR part 105 (MTSA, 2002 regulations).

*Cruise Ships:* Though no specific regulation exists within the New York Captain of the Port Zone for cruise ships, 33 CFR 165.160 does have provisions for Designated Vessels, among which are vessels with a passenger capacity of over 500. Following many other Captains of the Port throughout the Nation, we propose to incorporate specific language for the protection of the many cruise ships and high-capacity passenger vessels that visit the Port of New York and New Jersey.

The current Designated Vessel safety and security zones require the Captain of the Port to specifically designate a particular vessel to be covered by a Designated Vessel safety and security zone. This proposed rule would define the term ''cruise ship'' so as to include that class of vessel readily identifiable to the regulated public as such. This proposed rule would also render the safety and security zones activated and subject to enforcement at all times when such a vessel is within the navigable waters of the United States (see 33 CFR 2.36(a) to include the 12 NM territorial sea) in the New York Captain of the Port Zone (33 CFR 3.05–30). This safety and security zone is necessary to provide security protection for cruise ships at berth in locations where full, permanent security zones around the facilities would be overly restrictive when no cruise ship is present, and thereby not justified in the interest of the Port as a whole. This proposed change would decrease the size of the security zone around the NY Passenger Ship Terminal when passenger ships are not docked there as a reduced zone is sufficient to provide the necessary facility security. The reduced size of the zone allows for greater movement of vessels in a highly congested area. Similarly, the provision of a security zone around cruise ships within the New York Captain of the Port Zone removes the need to maintain a security zone around the Brooklyn Cruise Terminal on Buttermilk Channel when cruise ships are not present. Otherwise, to establish a similar permanent security zone around the Brooklyn Cruise Terminal on Buttermilk Channel would effectively close down 75 percent of the 500-foot-wide 40-foot project channel. This would force deeper draft vessels to transit between Governors Island and The Battery in

Manhattan en route to facilities on the East River and create numerous close quarters passing situations between the ships and commuter ferry operations in the vicinity of The Battery. Additionally, vessels calling on the Red Hook Container Terminal, adjacent to the Brooklyn Cruise Terminal, would then need to navigate around Dimond Reef which is not considered a safe navigational practice for deep draft vessels by any federal or state licensed pilot organization.

*Designated Vessels:* Currently, under the regulations found at 33 CFR 165.160, the Captain of the Port may designate certain vessels to receive a 100-yard safety and security zone. For reasons discussed elsewhere in this preamble, we propose to revise these regulations and move them to 33 CFR 165.169(a)(15). The proposed regulation would limit the type of vessels that may be so designated to small passenger vessels (authorized to carry more than 400 passengers and less than 200 feet in length), vessels carrying foreign dignitaries or government officials requiring protection, vessels carrying petroleum products, chemicals or other hazardous cargo, including, but not limited to, cargo ships and barges carrying bridge spans and large shore side container cranes that significantly increase the length or beam of the vessel and decrease its maneuverability. We propose to remove the existing language regarding Designated Vessels as being certificated to carry 500 or more passengers as these types of vessels would be covered in the proposed regulation for Cruise Ships. These proposed Designated Vessels would be readily recognizable either by the large crane or bridge structures onboard or, for the vessels carrying flammable or hazardous cargo, by the flying of the Bravo flag (red international signal pennant) from the outermost halyard (above the pilot house) where it can most easily be seen. The Captain of the Port would also notify the maritime community of periods during which this zone would be enforced by methods in accordance with 33 CFR 165.7. Similar to the proposed rule for cruise ships, these safety and security zones would be activated and subject to enforcement at all times when such a vessel is within the navigable waters of the United States in the New York Captain of the Port Zone.

*134th Street Pipeline Metering and Regulating Station:* Although not specifically regulated under MTSA 2002, we propose to establish a 25-yard security zone surrounding the 134th Street Pipeline Metering and Regulating Station Pier. This security zone is currently established under a regulation for commercial waterfront facilities found in 33 CFR 165.169(a)(3). Under a change proposed to that regulation discussed earlier in this preamble, that coverage would be terminated as this pipeline station does not currently fall under the provisions of 33 CFR part 105 (MTSA Facilities). A security zone at this facility, which is primarily regulated by the Federal Energy Regulatory Commission, is necessary to ensure the continued safety and security of navigation and the large number of industrial, commercial, and residential customers that would be affected by damage to this pipeline.

The Captain of the Port will be assisted in monitoring the safety and security zone by the pipeline operating company and the New York City Police Department. The proposed security zone would establish unambiguous Federal regulation to allow the Captain of the Port to assist pipeline security personnel and NYPD in preventing unauthorized waterside access to this facility.

*Naval Weapons Station Earle:* The Coast Guard first established a Security Zone restriction in this location on July 1, 1972 (under 33 CFR 127.301, 37 FR 16675, Aug. 18, 1972). This regulation was subsequently re-designated by the Coast Guard on June 30, 1982 (33 CFR 165.301, 47 FR 29659, July 8, 1982) and, again on July 6, 1987 (52 FR 25216). This security zone is currently codified at 33 CFR 165.130.

On July 28, 2003, the United States Army Corps of Engineers created a Restricted Area around this Naval installation, published at 33 CFR 334.102 (68 FR 37970, June 26, 2003). The Army Corps of Engineers' Restricted Area covers a portion of the waterway slightly larger than the current Coast Guard Security Zone. We propose to modify the Coast Guard Security Zone found at 33 CFR 165.130 to align with that of the Army Corps of Engineers to provide unambiguous concurrent enforcement capability for both Coast Guard and DoD patrol craft.

*Additional Consistency Modifications:* We propose to tailor the scope of specific safety and security zones to optimize effective enforcement and to harmonize these zones with the assessment of facilities covered by 33 CFR part 105 (MTSA Regulations) that warrant increased security protection. In addition, the safety and security zones described in 33 CFR 165.160 would be revised and moved into 33 CFR 165.169 to consolidate similar safety and security zone-related regulations within one New York Marine Inspection and Captain of the Port Zone safety and security zone regulation. Once consolidated, the existing regulations in 33 CFR 165.160 would be removed.

*Waterfront Heliports:* Additionally, although not specifically regulated under MTSA 2002, we propose to establish 25-yard security zones surrounding the four waterfront heliports currently operating at Manhattan Island and Jersey City, New Jersey by creating a separate regulation for these heliports in 33 CFR 165.169(a)(17). These security zones are currently covered under regulations for commercial waterfront facilities in 33 CFR 165.169(a)(3). However, under the proposed changes to that regulation discussed above, the coverage would inadvertently be terminated because not all heliports currently fall under the provisions of 33 CFR part 105 (MTSA Facilities). Therefore, this proposed section is necessary to ensure security zones for these facilities remain in place as although the waterfront heliports are primarily regulated by the Transportation Security Administration, the security zones are necessary to ensure the continued safety and security of both general aviation as well as recently-approved and planned commuter flight services.

The Captain of the Port will be assisted in monitoring the safety and security zones around these heliports by the FSO or other person responsible for security at each facility. The proposed security zone would establish unambiguous Federal regulation to allow the Captain of the Port to assist facility security personnel in preventing unauthorized waterside access to these facilities.

**Discussion of Proposed Rule**

We have discussed the nature of the proposed rule above in our discussion of the background and purpose section. This section describes the specific revisions that would be made by the proposed regulatory text that appears at the end of this document.

*Disestablishment of 33 CFR 165.160:* The Liquefied Hazardous Gas vessel or LHG facility, and Designated Vessels regulations in 33 CFR 165.160 would be revised and modified and moved into 33 CFR 165.169(a)(13) through (a)(15). The specific changes to be reflected in the new proposed regulations are discussed in the LHG Vessels, Cruise ships, and Designated vessels sections below.

*Commercial Waterfront Facilities:* Under this proposed regulation, we would revise 33 CFR 165.169(a)(3) to allow certain vessels to enter the security zones around Commercial Waterfront Facilities with the authorization of the Facility Security

Officer (FSO). Such authorization from the FSO would allow entry into the security zone without requiring express Captain of the Port approval. Active participation in authorized vessel-to-facility transfer operations, authorized vessel docking or undocking operations, authorized vessel to vessel transfer operations, and other routine waterfront operations specified in the Captain of the Port approved Facility Security Plan would all be permitted without individual vetting and approval of the Captain of the Port. It would be a violation of this safety and security zone regulation for any of these activities to occur within the safety and security zone without FSO authorization. For all other activities that vessels or personnel would require access to the safety and security zone, the Captain of the Port would require confirmation from the FSO that the personnel and vessels intending to occupy the safety and security zone have been screened according to the previously established measures for granting facility access. Such measures for granting facility access must be approved by the Coast Guard as part of the facility's Facility Security Plan (FSP) and be appropriate to the given Maritime Security Level.

*Liberty and Ellis Islands:* Liberty and Ellis Island are currently provided a safety and security zone extending 150 yards around each island in 33 CFR 165.169(a)(4). We propose to revise that regulation and merge the two separate zones into a single zone while expanding the size of the security zone around Liberty Island. The resultant security zone would maintain current boundaries north and east of Ellis Island and increase the security zone size east and south of Liberty Island, to include: waters up to 400 yards east of Liberty Island; the connecting waters between Ellis and Liberty Island; all waters north of the National Dock Channel; and all waters between Liberty and Ellis Islands and Liberty State Park, New Jersey.

The proposed safety and security zone is necessary to protect each Island, the bridge between Liberty State Park and Ellis Island, authorized sightseeing vessels operating at each island, others in the maritime community, and the surrounding communities from subversive or terrorist attack against the islands that could potentially cause serious negative impact to vessels, the port, or the environment. Annual marine events and fireworks displays within approved firework zones will continue to be permitted through the Coast Guard marine event permitting process, however all event participants and equipment will be subject to Captain of the Port and or U. S. Park Police review for security zone access. New events for which access to this area is necessary will be considered in consultation with the USPP, and an application for a Coast Guard marine event permit may be denied for security reasons as a result of such consultation. Vessels would not be precluded from mooring at or getting underway from commercial or recreational piers in the vicinity, but outside of the zone.

*NYC Passenger Ship Terminal:* Currently, the Passenger Ship Terminal safety and security zone found at 33 CFR 165.169(a)(6) extends approximately 280 yards into the Hudson River from Pier 96 to Pier 84 and is activated only when a cruise ship is present at berth or when the Intrepid Sea, Air and Space Museum is being utilized as an Emergency Operations Center. To eliminate undue restrictions on commercial and recreational navigation, we propose to reduce the zone to extend to only a maximum of 150 yards into the Hudson River from approximately 50 yards north of Pier 92 south to approximately 50 yards south of Pier 86, including a 25 yard perimeter around the Intrepid Sea, Air, and Space Museum. We further propose removing the activation criteria so that the zone is permanently enforceable. This change is proposed to offer an unchanging zone, which would enhance compliance by the regulated public and eliminate ambiguity for enforcement personnel.

*LHG Vessels:* Safety and security zone regulations for LHG Vessels and Facilities are currently found at 33 CFR 165.160. We propose to relocate these regulations to 33 CFR 165.169(a)(13). Additionally, the current regulation establishes a 200-yard security zone around all LHG Vessels and Facilities. This proposed revision would limit the security zone around moored LHG Vessels to 100-yards due to the constraints on vessel traffic movement around such facilities, and in keeping with current enforcement practice. Language incorporating the LHG facility itself will be removed, as these facilities will be protected when no LHG Vessel is present, by the MTSA Facility safety and security zone discussed earlier in this preamble.

The enforcement period for the proposed revised regulation would be at all times while the LHG vessel is within the navigable waters of the United States (see 33 CFR 2.36(a) to include the 12 NM territorial sea) in the New York Captain of the Port Zone (33 CFR 3.05–30), and notice will continue to be made in accordance with 33 CFR 165.7. These tank vessels are readily identifiable to the public by the requirement that they fly the Bravo flag (red international signal pennant) from an outermost halyard above the pilothouse where it can most easily be seen.

*Cruise Ships:* There is currently no specific regulation in the New York Captain of the Port Zone for safety and security around cruise ships. Current safety and security zone regulations for Designated Vessels in 33 CFR 165.160 include vessels certificated to carry 500 or more passengers. We propose to create specific regulations for cruise ships, to fall under 33 CFR 165.169.

We propose to define a ''cruise ship'' as a passenger vessel (as defined in 46 U.S.C. 2101(22)) that is authorized to carry more than 400 passengers for hire and is 200 feet or more in length. This definition of ''cruise ship'' will include ferries (as defined in 46 CFR 2.10–25) that are authorized to carry more than 400 passengers for hire and are 200 feet or more in length. Similar to the LHG Vessel zone, this proposed zone would be activated and subject to enforcement at all times a cruise ship is underway, anchored or moored within the navigable waters of the United States in the New York Captain of the Port Zone.

*Designated Vessels:* Safety and security zone regulations for Designated Vessels are currently found in 33 CFR 165.160. We propose to revise and relocate these regulations to 33 CFR 165.169(a)(15). The current regulation limits the application of Designated Vessel status to vessels certificated to carry 500 or more passengers; vessels carrying government officials or dignitaries requiring protection by the U.S. Secret Service, or other Federal, State or local law enforcement agency; and barges or ships carrying petroleum products, chemicals, or other hazardous cargo. The proposed changes to this regulation would remove the language regarding vessels certificated to carry 500 or more passengers as this would be covered elsewhere in the regulations for Cruise Ships, and add passenger vessels authorized to carry more than 400 passengers and are less than 200 feet in length. In addition, the proposed change would clarify that ships and barges carrying petroleum products, chemicals or other hazardous cargo would be identifiable to the public by the requirement that the vessel fly the Bravo flag (red international signal pennant) from an outermost halyard above the pilot house where it can most easily be seen. Vessels carrying government officials, dignitaries requiring protection, or passenger vessels as defined in 46 U.S.C. 2101(22), that are authorized to carry more than 400 passengers and are less than 200 feet in length, will be recognizable to the public as the vessel will be escorted by

a federal, state or local law enforcement vessel identifiable by flashing light, siren, special markings or other means that identify the vessel as engaged in law enforcement or security operations.

*134th Street Pipeline Metering and Regulating Station:* Although not specifically regulated under MTSA 2002, we propose to retain the 25-yard security zone surrounding the 134th Street Pipeline Metering and Regulating Station Pier. This security zone is currently covered under regulation pertaining to commercial waterfront facilities found in 33 CFR 165.169(a)(3). Under a change proposed to that regulation discussed earlier in this preamble, that coverage would be terminated because this pipeline station does not currently fall under the provisions of 33 CFR part 105 (MTSA Facilities). A security zone at this facility, which is primarily regulated by the Federal Energy Regulatory Commission, is necessary to ensure the continued safety and security of navigation and the large number of industrial, commercial, and residential customers that would be affected by an attack on this pipeline.

The Captain of the Port will be assisted in monitoring the safety and security zone by the pipeline operating company and the New York City Police Department. The proposed security zone would establish unambiguous Federal regulation to allow the Captain of the Port to assist pipeline security personnel and NYPD in preventing unauthorized waterside access to this facility.

*Naval Weapons Station Earle:* Modifications to the security zone found at 33 CFR 165.130(a) are necessary to align that zone's dimensions with those of the Restricted Area Regulations found in 33 CFR 334.102. This alignment would provide unambiguous concurrent enforcement capability for both Coast Guard and Department of Defense (DoD) patrol craft assigned waterside security responsibilities in this area. Specifically the boundaries of the security zone would be altered to include all navigable waters of Sandy Hook Bay within 750 yards of all Naval Weapons Station Earle piers and within Terminal Channel leading to the pier at Naval Weapons Station Earle, New Jersey.

*Additional Consistency Modifications Within 33 CFR 165.169:* We propose to make certain changes to increase the clarity of 33 CFR 165.169. Paragraph (b)(3) of that section applies solely to the safety and security zone codified in 33 CFR 165.169(a)(3). Paragraph (b)(3) would be removed in light of the proposed revisions to paragraph (a)(3). Paragraphs (b)(4) and (b)(5) of 33 CFR 165.169, both of which apply solely to the safety and security zone codified at 33 CFR 165.169(a)(12), would become part of paragraph (a)(12). Paragraph 165.169(c) would similarly be moved to become part of 33 CFR 165.169(a)(12).

*Waterfront Heliports:* Finally, although not specifically regulated under MTSA 2002, we propose to retain the 25-yard security zones surrounding the four waterfront heliports currently operating at Manhattan Island and Jersey City, New Jersey. These security zones are currently covered under regulation pertaining to commercial waterfront facilities found in 33 CFR 165.169(a)(3). Security zones at these facilities, which are primarily regulated by the Transportation Security Administration, are necessary to ensure the continued safety and security of both general aviation as well as recently-approved and currently-considered commuter flight services. Consultation with the Transportation Security Administration and the Port Authority of New York and New Jersey indicated that retention of the current 25-yard security zones is warranted.

The Captain of the Port will be assisted in monitoring the safety and security zones around these heliports by the FSO or other person responsible for security at each facility. The proposed security zone would establish unambiguous Federal regulation to allow the Captain of the Port to assist facility security personnel in preventing unauthorized waterside access to these facilities.

**Regulatory Evaluation**

We developed this proposed rule after considering numerous statutes and executive orders related to rulemaking. Below we summarize our analysis based on 13 of these statutes or executive orders.

*Executive Order 12866*

This proposed rule is not a ''significant regulatory action'' under section 3(f) of Executive Order 12866, Regulatory Planning and Review, and does not require an assessment of potential costs and benefits under section 6(a)(3) of that Order. The Office of Management and Budget has not reviewed it under that Order.

We expect the economic impact of this proposed rule to be so minimal that a full Regulatory Evaluation is unnecessary. This finding is based on the following facts. Access to all zones modified within the proposed regulation may be granted through coordination with the Captain of the Port. With regard to the changes to the Commercial Waterfront Facilities, this proposed rule would reduce the number of safety and security zones around commercial waterfront facilities, thereby reducing the level of regulatory impact. With regard to the expansion of the zone at Liberty and Ellis Islands, this proposed rule would not infringe on any Federal channel and procedures would be enacted to provide regulated public access to those areas. With regard to the changes proposed for the New York City Passenger Ship Terminal safety and security zone, the proposed rule would reduce the size of the regulated area. With regard to the changes proposed for the inclusion of LHG Vessels, the proposed regulation would substitute less restrictive regulations for those currently in effect. With regard to the addition of regulations relating to cruise ships, the proposed rule would in effect move the current regulation regarding cruise ships currently contained in 33 CFR part 169.160 to the new section with modifications to the definition. In effect, the rule does not create a new type of security zone, rather, it moves an existing regulation to another section of the code, thereby creating no significant change to the security zone requirements. With regard to the changes proposed for the inclusion of the 134th Street Pipeline Metering and Regulating Station pier, vessels will be able to transit around the zone. With regard to the changes proposed for the modification to the Security Zone at Naval Weapons Station Earle, Sandy Hook Bay, New Jersey, this regulation proposes only to align restrictions applying to a portion of the waterway already restricted by other Federal regulation.

*Small Entities*

Under the Regulatory Flexibility Act (5 U.S.C. 601–612), we have considered whether this proposed rule would have a significant economic impact on a substantial number of small entities. 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.

This proposed rule would affect the following entities, some of which might be small entities: the owners or operators of vessels intending to transit or anchor in portions of the New York Captain of the Port Zone deemed by the Captain of the Port to present an

unacceptable level of risk to the safety and security of the general public. However, these safety and security zones would not have a significant economic impact on a substantial number of small entities for the reasons discussed in the Regulatory Evaluation section above.

If you think that your business, organization, or governmental jurisdiction qualifies as a small entity and that this 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.

*Assistance for Small Entities*

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 so that they can better evaluate its effects on them and participate in the rulemaking. 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 contact Lieutenant Commander M. McBrady, Waterways Management Division, Coast Guard Sector New York (718) 354–2353. 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.

*Collection of Information*

This proposed rule would call for a collection of information under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501–3520). As defined in 5 CFR 1320.3(c), ''collection of information'' comprises reporting, recordkeeping, monitoring, posting, labeling, and other, similar actions. The title and description of the information collections, a description of those who must collect the information, and an estimate of the total annual burden follow. The estimate covers the time for reviewing instructions, searching existing sources of data, gathering and maintaining the data needed, and completing and reviewing the collection.

*Title:* Safety and Security Zones: New York Marine Inspection Zone and Captain of the Port Zone.

*Summary of the Collection of Information:* This information collection provides the basis for the Captain of the Port to asses the security risks posed by allowing a vessel to enter the security zones established for the Part 105 Facilities, New York City Passenger Ship Terminal, the 134th Street Pipeline Metering and Regulation Station and the Waterfront Heliports. This risk assessment guides the COTP in deciding whether or not to authorize entry to the requesting person or vessel.

*Need for Information:* In accordance with 33 U.S.C. 1226, the U.S. Coast Guard may establish security and safety zones and control access to such zones. The information collection allows the Captain of the Port to assess security risks of allowing persons or vessels to access an established zone.

*Proposed Use of Information:* The information collection will be used to monitor what vessels and numbers of individuals are within an established security zone.

*Description of the Respondents:* Respondents will be vessel owners or operators, and contractors.

*Number of Respondents:* Eighty.

*Frequency of Response:* Two times per week.

*Burden of Response:* Approximately 5 minutes per response. Vessel owners or operators and contractors report that they are entering the security zone to Coast Guard Sector New York by VHF Marine Radio or telephone at the beginning of their project. The information collected includes name of caller and contact information, name and description of vessel, location of the security zone, number of persons entering the security zone, reason for entering the security zone, and the expected amount of time within the security zone. There is no instruction review necessary for this report. Gathering and maintaining data would be conducted by the reporting source on the way to the security zone. It is expected that gathering this information would require minimal effort and no extra financial resources.

*Estimate of Total Annual Burden:* Nine hours.

As required by the Paperwork Reduction Act of 1995 (44 U.S.C. 3507(d)), we have submitted a copy of this proposed rule to the Office of Management and Budget (OMB) for its review of the collection of information.

We ask for public comment on the proposed collection of information to help us determine how useful the information is; whether it can help us perform our functions better; whether it is readily available elsewhere; how accurate our estimate of the burden of collection is; how valid our methods for determining burden are; how we can improve the quality, usefulness, and clarity of the information; and how we can minimize the burden of collection.

If you submit comments on the collection of information, submit them both to OMB and to the Docket Management Facility where indicated under **ADDRESSES**, by the date under **DATES**.

You need not respond to a collection of information unless it displays a currently valid control number from OMB. Before the requirements for this collection of information become effective, we will publish notice in the **Federal Register** of OMB's decision to approve, modify, or disapprove the collection.

*Federalism*

A rule has implications for federalism under Executive Order 13132, Federalism, if it has a substantial direct effect on State or local governments and would either preempt State law or impose a substantial direct cost of compliance on them. We have analyzed this proposed rule under that Order and have determined that it does not have implications for federalism.

*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 or more in any one year. Though this proposed rule would not result in such an expenditure, we do discuss the effects of this rule elsewhere in this preamble.

*Taking of Private Property*

This proposed rule would not effect a taking of private property or otherwise have taking implications under Executive Order 12630, Governmental Actions and Interference with Constitutionally Protected Property Rights.

*Civil Justice Reform*

This proposed rule meets applicable standards in sections 3(a) and 3(b)(2) of Executive Order 12988, Civil Justice Reform, to minimize litigation, eliminate ambiguity, and reduce burden.

*Protection of Children*

We have analyzed this proposed rule under Executive Order 13045, Protection of Children from Environmental Health Risks and Safety Risks. This rule is not an economically significant rule and would not create an environmental risk to health or risk to safety that might disproportionately affect children.

*Indian Tribal Governments*

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. We invite your comments on how this proposed rule might impact tribal governments, even if that impact may not constitute a ''tribal implication'' under the Order.

*Energy Effects*

We have analyzed this proposed rule under Executive Order 13211, Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use. We have determined that it is not a ''significant energy action'' under that order because it is not a ''significant regulatory action'' under Executive Order 12866 and is not likely to have a significant adverse effect on the supply, distribution, or use of energy. The Administrator of the Office of Information and Regulatory Affairs has not designated it as a significant energy action. Therefore, it does not require a Statement of Energy Effects under Executive Order 13211.

*Technical Standards*

The National Technology Transfer and Advancement Act (NTTAA) (15 U.S.C. 272 note) directs agencies to use voluntary consensus standards in their regulatory activities unless the agency provides Congress, through the Office of Management and Budget, with an explanation of why using these standards would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., specifications of materials, performance, design, or operation; test methods; sampling procedures; and related management systems practices) that are developed or adopted by voluntary consensus standards bodies.

This proposed rule does not use technical standards. Therefore, we did not consider the use of voluntary consensus standards.

*Environment*

We have analyzed this proposed rule under Commandant Instruction M16475.1D which guides the Coast Guard in complying with the National Environmental Policy Act of 1969 (NEPA) (42 U.S.C. 4321–4370f), and have made a preliminary determination that this action is not likely to have a significant effect on the human environment. A preliminary ''Environmental Analysis Check List'' supporting this preliminary determination is available in the docket where indicated under **ADDRESSES**. We seek any comments or information that may lead to the discovery or a significant environmental impact from this proposed rule.

**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 proposes 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:** 33 U.S.C. 1226, 1231; 46 U.S.C. Chapter 701; 50 U.S.C. 191, 195; 33 CFR 1.05–1, 6.04–1, 6.04–6, and 160.5; Public Law 107–295, 116 Stat. 2064; Department of Homeland Security Delegation No. 0170.1.

2. In § 165.130, revise paragraph (a) to read as follows:

### § 165.130 Sandy Hook Bay, New Jersey—security zone.

(a) *Naval Ammunition Depot Piers.* The navigable waters within the following boundaries are a security zone: A line beginning on the shore at 40°25′55.6″ N, 074°04′31.4″ W; thence to 40°26′54.0″ N, 074°03′53.0″ W; thence to 40°26′58.0″ N, 074°04′03.0″ W; thence to 40°27′56.0″ N, 074°03′24.0″ W; thence to 40°27′28.3″ N, 074°02′12.4″ W; thence to 40°26′29.2″ N, 074°02′53″ W; thence to 40°26′31.1″ N, 074°02′57.2″ W; thence to 40°25′27.3″ N, 074°03′41″ W; thence northwest along the shoreline to the beginning point.

* * * * *

### § 165.160 [Removed]

3. Remove § 165.160.

4. Amend § 165.169 as follows: revise paragraphs (a)(3), (a)(4), (a)(6), and (a)(12); add paragraphs (a)(13) through (a)(17); and remove paragraphs (b)(3) through (b)(5), and (c), to read as follows:

### § 165.169 Safety and Security Zones: New York Marine Inspection Zone and New York Captain of the Port Zone.

(a) * * *

(3) *Part 105 Facilities.* (i) *Definition.* For the purposes of this section, *Part 105 Facility* means any facility subject to the regulations contained in 33 CFR part 105, including those designated as ''Public Access Facilities'' as defined in 33 CFR 101.105. For public identification purposes, all of these facilities are required to have signs posted along the shoreline, facing the water, indicating that there is a 25 yard waterfront security zone surrounding the facilities.

(ii) *Location.* All waters within 25 yards of each Part 105 Facility. When a barge, ferry, or other commercial vessel is conducting transfer operations at a Part 105 Facility, the 25-yard zone is measured from the outboard side of the commercial vessel.

(iii) *Regulations.* (A) Vessels not actively engaged in passenger, cargo, provision, facility maintenance or inspection, bunker transfer operations, or docking or undocking operations, authorized in advance by the Facility Security Plan, Facility Security Officer or designated representative, must not enter within any part of a zone described in paragraph (a)(3) of this section without the express permission of the Coast Guard Captain of the Port, a designated representative or designated on-scene patrol personnel.

(B) Persons seeking Captain of the Port permission to enter within a particular zone for official business other than authorized passenger, cargo, provision, facility maintenance or inspection, bunker transfer operations or authorized docking or undocking operations may request such authorization by contacting: Commander Coast Guard Sector New York, via the Sector Command Center (SCC), at: 212 Coast Guard Drive, Staten Island, NY 10305, or via fax to (718) 354–4125 or by contacting the Sector Command Center Duty Officer by phone at: (718) 354–4353. Before authorization to enter the zone, the Coast Guard will evaluate available information, which may vary depending on on-scene and operational conditions. Vessels requesting permission to enter the zone should be prepared to communicate with the Coast Guard while this evaluation process occurs. Information the Coast Guard will evaluate in making its determination may include the manifest of all equipment and personnel to be granted access to the area, dates and times of access, the purpose for which access is requested, and on-scene contact information for personnel or equipment that will occupy the zone.

(4) *Liberty and Ellis Islands.* All waters of Upper New York Bay bound by the following points: 40°41′25.9″ N, 074°03′17.8″ W; thence along the northern edge of National Dock Channel passing through National Dock Channel Buoy 6 in approximate position 40°41′20.2″ N, 074°02′58.2″ W; thence to

National Dock Channel Buoy 4 in approximate position 40°41′15.6″ N, 074°02′50.3″ W; thence to National Dock Channel Buoy 2 in approximate position 40°41′09.4″ N, 074°02′39.9″ W; thence to 40°41′11.3″ N, 074°02′25.2″ W; thence to 40°41′26.9″ N, 074°02′21.2″ W; thence to 40°41′39.2″ N, 074°02′33.2″ W; thence to 40°41′49.6″ N, 074°02′18.4″ W; thence to 40°41′50.6″ N, 074°02′13.8″ W; thence to 40°41′54.3″ N, 074°02′11.7″ W; thence to 40°41′57.2″ N, 074°02′07.6″ W; thence to 40°42′09.5″ N, 074°02′23.8″ W; thence to 40°42′06.7″ N, 074°02′28.0″ W; thence to 40°42′11.6″ N, 074°02′37.6″ W; (NAD 83) thence southwest along the shoreline to the point of origin.

* * * * *

(6) *New York City Passenger Ship Terminal, Hudson River, NY.*—(i) *Location.* All navigable waters of the Hudson River bound by the following points: From the point 40°46′09″ N, 073°59′48.7″ W on the seawall midway between Pier 92 and 94, thence northwest to approximate position 40°46′14″ N, 074°00′00.9″ W, approximately 125 yards northwest of Pier 92, thence southwest to approximate position 40°45′56.7″ N, 074°00′15.3″ W, approximately 150 yards west of Pier 86, thence east to the seawall between Pier 84 and Pier 86 at approximate position 40°45′49.6″ N, 073°59′58.1″ W (NAD 1983), thence northeast along the shoreline to the point of origin.

(ii) *Regulations.* Vessels not actively engaged in passenger, cargo, provision, facility maintenance or inspection, bunker transfer operations, or docking or undocking operations, authorized in advance by the Facility Security Plan, Facility Security Officer or designated representative, must not enter within any part of a zone described in paragraph (a)(6) of this section without the express permission of the Coast Guard Captain of the Port, a designated representative or designated on-scene patrol personnel. Persons seeking Captain of the Port permission to enter within the zone described in paragraph (a)(6) of this section for official business other than authorized passenger, cargo, provision, facility maintenance or inspection, bunker transfer operations or authorized docking or undocking operations may request such authorization by contacting: Commander Coast Guard Sector New York, via the Sector Command Center (SCC), at: 212 Coast Guard Drive, Staten Island, NY 10305, or via fax to (718) 354–4125 or by contacting the Sector Command Center Duty Officer by phone at: (718) 354–4353. Before authorization to enter the zone, the Coast Guard will evaluate available information, which may vary depending on on-scene and operational conditions. Vessels requesting permission to enter the zone should be prepared to communicate with the Coast Guard while this evaluation process occurs. Information the Coast Guard will evaluate in making its determination may include the manifest of all equipment and personnel to be granted access to the area, dates and times of access, the purpose for which access is requested, and on-scene contact information for personnel or equipment that will occupy the zone.

* * * * *

(12) *Approaches to New York, Atlantic Ocean.* (i) *Location:* All waters of the Atlantic Ocean between the Ambrose to Hudson Canyon Traffic Lane and the Barnegat to Ambrose Traffic Lane bound by the following points: 40°21′29.9″ N, 073°44′41.0″ W, thence to 40°21′04.5″ N, 073°45′31.4″ W, thence to 40°15′28.3″ N, 073°44′13.8″ W, thence to 40°15′35.4″ N, 073°43′29.8″ W, thence to 40°19′21.2″ N, 073°42′53.0″ W, (NAD 1983) thence to the point of origin.

(ii) *Enforcement period.* Enforcement periods for the zone in paragraph (a)(12) of this section will be announced through marine information broadcast or other appropriate method of communication and the zone is activated whenever a vessel is anchored in the area described in paragraph (a)(12)(i) or a Coast Guard patrol vessel is on-scene.

(iii) *Regulations.* (A) The area described in paragraph (a)(12) of this section is not a Federal Anchorage Ground. Only vessels directed by the Captain of the Port or his or her designated representative to enter this zone are authorized to anchor here.

(B) Vessels do not need permission from the Captain of the Port to transit the area described in paragraph (a)(12) of this section during periods when that security zone is not being enforced.

(13) *Liquefied Hazardous Gas (LHG) Vessels.*—(i) *Definitions.* For the purposes of this section, *LHG Vessel* means any vessel constructed or converted to carry, in bulk, any of the flammable or toxic products listed in 33 CFR 127.005, Table 127.005.

(ii) *Location.* All waters within a 200-yard radius of any LHG Vessel that is underway and all waters within a 100-yard radius of any LHG Vessel that is moored or at anchor.

(iii) *Enforcement period.* The zone described in paragraph (a)(13) of this section will be activated upon entry of a LHG Vessel into the navigable waters of the United States (see 33 CFR 2.36(a) to include the 12 NM territorial sea) in the New York Captain of the Port Zone (33 CFR 3.05–30). The LHG Vessel will be identifiable by the requirement to fly the Bravo flag (red international signal pennant) from the outermost halyard (above the pilot house) where it can most easily be seen. In addition to visual identification of the LHG Vessel, the Captain of the Port will notify the maritime community of periods during which this zone will be enforced by methods in accordance with 33 CFR 165.7.

(14) *Cruise Ships.*—(i) *Definition.* For the purposes of this section, *cruise ship* means a passenger vessel as defined in 46 U.S.C. 2101(22), that is authorized to carry more than 400 passengers and is 200 or more feet in length. A cruise ship under this section will also include ferries as defined in 46 CFR 2.10–25 that are authorized to carry more than 400 passengers and are 200 feet or more in length.

(ii) *Location.* All waters within a 100-yard radius of any Cruise ship whether underway, anchored, or at berth.

(iii) *Enforcement period.* The zone described in paragraph (a)(14) of this section will be activated upon entry of any cruise ship into the navigable waters of the United States (see 33 CFR 2.36(a) to include the 12 NM territorial sea) in the New York Captain of the Port Zone (33 CFR 3.05–30). This zone will remain activated at all times while the cruise ship is within the navigable waters of the United States in the New York Captain of the Port Zone.

(15) *Designated Vessels.*—(i) *Definition.* For the purposes of this section, *Designated Vessels* are vessels carrying government officials, dignitaries, or other passengers requiring protection by the U.S. Secret Service, or other Federal, State or local law enforcement agency; barges or ships carrying petroleum products, chemicals, or other hazardous cargo; and passenger vessels (as defined in 46 U.S.C. 2101(22)), that are authorized to carry more than 400 passengers and are less than 200 feet in length.

(ii) *Location.* All waters within a 100-yard radius of any Designated Vessel.

(iii) *Enforcement period.* The zone described in paragraph (a)(15) of this section will be activated upon entry of any Designated Vessel into the navigable waters of the United States (see 33 CFR 2.36(a) to include the 12 NM territorial sea) in the New York Captain of the Port Zone (33 CFR 3.05–30). This zone will remain activated at all times while the Designated Vessel is within the navigable waters of the United States in the New York Captain of the Port Zone. The Designated

Vessels, including ships and barges carrying petroleum products, chemicals, or other hazardous cargo will be recognized by the requirement to fly the Bravo flag (red international signal pennant) from the outermost halyard (above the pilot house) where it can most easily be seen. Designated Vessels carrying government officials, dignitaries, or other passengers requiring protection, and passenger vessels authorized to carry more than 400 passengers and are less than 200 feet in length will be recognizable by their being escorted by a federal, state or local law enforcement or security vessel. The law enforcement or security vessel will be identifiable by flashing light, siren, flags, markings and/or through other means that clearly identify the vessel as engaged in law enforcement or security operations.

(16) *134th Street Pipeline Metering and Regulating Station.*—(i) *Location.* All waters of the Hudson River within 25 yards of the 134th Street Pipeline Metering and Regulating Station.

(ii) *Regulations.* (A) Vessels not actively engaged in facility maintenance or inspection operations authorized in advance by the Pipeline Security Officer or designated representative, or authorized docking or undocking operations, must not enter within any part of a zone described in paragraph (a)(16) of this section without the express permission of the Coast Guard Captain of the Port, a designated representative or designated on-scene patrol personnel.

(B) Persons seeking Captain of the Port permission to enter within a particular zone for official business other than authorized passenger, cargo, provision, facility maintenance or inspection, bunker transfer operations or authorized docking or undocking operations may request such authorization by contacting: Commander Coast Guard Sector New York, via the Sector Command Center (SCC), at: 212 Coast Guard Drive, Staten Island, NY 10305, or via fax to (718) 354–4125 or by contacting the Sector Command Center Duty Officer by phone at: (718) 354–4353. Before authorization to enter the zone, the Coast Guard will evaluate available information, which may vary depending on on-scene and operational conditions. Vessels requesting permission to enter the zone should be prepared to communicate with the Coast Guard while this evaluation process occurs. Information the Coast Guard will evaluate in making its determination may include the manifest of all equipment and personnel to be granted access to the area, dates and times of access, the purpose for which access is requested, and on-scene contact information for personnel or equipment that will occupy the zone.

(17) *Waterfront Heliports.*—(i) *Location.* All waters of the East River within 25 yards of the East 34th Street and Wall Street Heliports, and all waters of the Hudson River within 25 yards of the West 30th Street Heliport and the Jersey City/Newport Helistop, areas of land or water under and in immediate proximity to them; buildings on such structures or contiguous to them; and equipment and materials on such structures and in such buildings. When a barge, ferry, or other commercial vessel is conducting transfer operations at a waterfront heliport, the 25-yard zone is measured from the outboard side of the commercial vessel.

(ii) *Regulations.* (A) Vessels not actively engaged in passenger, cargo, provision, facility maintenance or inspection, bunker transfer operations, or docking or undocking operations, authorized in advance by the Facility Security Plan, Facility Security Officer or designated representative, must not enter within any part of a zone described in paragraph (a)(17) of this section without the express permission of the Coast Guard Captain of the Port, a designated representative, or designated on-scene patrol personnel.

(B) Persons seeking Captain of the Port permission to enter within a particular zone for official business other than authorized passenger, cargo, provision, facility maintenance or inspection, bunker transfer operations or authorized docking or undocking operations may request such authorization by contacting: Commander Coast Guard Sector New York, via the Sector Command Center (SCC), at: 212 Coast Guard Drive, Staten Island, NY 10305, or via fax to (718) 354–4125 or by contacting the Sector Command Center Duty Officer by phone at: (718) 354–4353. Before authorization to enter the zone, the Coast Guard will evaluate available information, which may vary depending on on-scene and operational conditions. Vessels requesting permission to enter the zone should be prepared to communicate with the Coast Guard while this evaluation process occurs. Information the Coast Guard will evaluate in making its determination may include the manifest of all equipment and personnel to be granted access to the area, dates and times of access, the purpose for which access is requested, and on-scene contact information for personnel or equipment that will occupy the zone.

(C) Vessels entering or departing the marina north of the Newport Helistop are authorized to transit through the safety/security zone around the Newport Helistop during their transit, provided that helicopters are not taking off or landing. No loitering or unnecessary delay is authorized during these transits.

* * * * *

Dated: April 25, 2008.

**Michael S. Gardiner,**

*Captain, U.S. Coast Guard, Acting Captain of the Port, New York.*

[FR Doc. E8–10000 Filed 5–5–08; 8:45 am]

BILLING CODE 4910–15–P

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## DEPARTMENT OF HOMELAND SECURITY

## Coast Guard

## 33 CFR Part 165

**[Docket No. USCG–2008–0326]**

**RIN 1625–AA00**

## Safety Zone; Rochester Harborfest, Lake Ontario at the Genesee River, Rochester, NY

**AGENCY:** Coast Guard, DHS.

**ACTION:** Notice of proposed rulemaking.

**SUMMARY:** The Coast Guard proposes establishment of a safety zone for a fireworks event in the Captain of the Port Buffalo zone. This proposed rule is intended to restrict vessels from portions of water and shore areas during events that pose a hazard to public safety. The safety zone established by this proposed rule is necessary to protect spectators, participants, and vessels from the hazards associated with fireworks displays.

**DATES:** Comments and related materials must reach the Coast Guard on or before June 5, 2008.

**ADDRESSES:** You may mail comments and related material to Commander, U.S. Coast Guard Sector Buffalo, 1 Fuhrmann Boulevard, Buffalo, NY 14203. Sector Buffalo Prevention Department maintains the public docket for this rulemaking. Comments and material received from the public, as well as documents indicated in this preamble as being available in the docket, will become part of this docket and will be available for inspection or copying at Coast Guard Sector Buffalo between 8 a.m. and 3 p.m., Monday through Friday, except Federal holidays.

**FOR FURTHER INFORMATION CONTACT:** If you have further questions on this rule, contact Lieutenant Tracy Wirth, U.S. Coast Guard Sector Buffalo, at (716) 843–9573.

**SUPPLEMENTARY INFORMATION:**

**Request for Comments**

We encourage you to participate in this rulemaking by submitting comments and related material. If you do so, please include your name and address, identify the docket number for this rulemaking [USCG–2008–0326], indicate the specific section of this document to which each comment applies, and give the reason for each comment. Please submit all comments and related material in an unbound format, no larger than 8½ by 11 inches, suitable for copying. If you would like to know they reached us, please enclose a stamped, self-addressed postcard or envelope. We will consider all comments and material received during the comment period. We may change this proposed rule in view of them.

**Public Meeting**

We do not now plan to hold a public meeting. But you may submit a request for a meeting by writing to Commander, Coast Guard Sector Buffalo at the address under **ADDRESSES** explaining why one would be beneficial. If we determine that one would aid this rulemaking, we will hold one at a time and place announced by a later notice in the **Federal Register**.

**Background and Purpose**

This temporary safety zone is necessary to ensure the safety of vessels and spectators from hazards associated with a fireworks display. Based on accidents that have occurred in other Captain of the Port zones, and the explosive hazards of fireworks, the Captain of the Port Buffalo has determined fireworks launches in close proximity to watercraft pose significant risk to public safety and property. The likely combination of large numbers of recreation vessels, congested waterways, darkness punctuated by bright flashes of light, alcohol use, and debris falling into the water could easily result in serious injuries or fatalities. Establishing a safety zone to control vessel movement around the location of the launch platform will help ensure the safety of persons and property at these events and help minimize the associated risks.

**Discussion of Proposed Rule**

The proposed rule is necessary to ensure the safety of vessels and people during the Rochester Harborfest Fireworks. The proposed safety zone is described in subparagraphs (1) of this regulation. The proposed safety zone will be enforced only immediately before and during the event which poses hazard to the public and only upon notice by the Captain of the Port. The Captain of the Port Buffalo will cause notice of enforcement of the safety zone established by this section to be made by all appropriate means to the affected segments of the public including publication in the **Federal Register** in accordance with 33 CFR 165.7(a). Such means of notification may also include, but are not limited to, Broadcast Notice to Mariners or Local Notice to Mariners. The Captain of the Port will issue a Broadcast Notice to Mariners notifying the public when enforcement of the safety zone established by this section is suspended.

**Regulatory Evaluation**

This proposed rule is not a ''significant regulatory action'' under section 3(f) of Executive Order 12866, Regulatory Planning and Review, and does not require an assessment of potential costs and benefits under section 6(a)(3) of that Order. The Office of Management and Budget has not reviewed it under that Order.

We expect the economic impact of this proposed rule to be so minimal that a full Regulatory Evaluation is unnecessary.

The Coast Guard's use of this safety zone will be of short duration and designed to minimize the impact on navigable waters. This safety zone will only be enforced immediately before and during the time the event occurs. Furthermore, this safety zone has been designed to allow vessels to transit unrestricted to portions of the waterway not affected by the safety zone. The Coast Guard expects insignificant adverse impact to mariners from the activation of this safety zone.

**Small Entities**

Under the Regulatory Flexibility Act (5 U.S.C. 601–612), we have considered whether this proposed rule would have a significant economic impact on a substantial number of small entities. 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.

This proposed rule would affect the following entities, some of which might be small entities: the owners of operators of vessels intending to transit or anchor in the area designated as the safety zone in subparagraph (1) during the date and time the safety zone is being enforced. This safety zone would not have a significant economic impact on a substantial number of small entities for the following reasons. The safety zone in this proposed rule will be in effect only for a short period of time. The safety zone has been designed to allow traffic to pass safely around the zone whenever possible and vessels will be allowed to pass through the zone with the permission of the Captain of the Port.

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.

**Assistance for Small Entities**

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 so that they can better evaluate its effects on them and participate in the rulemaking. 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 contact LT Tracy Wirth, Prevention Department, Coast Guard Sector Buffalo, Buffalo, NY at (716) 843–9573. 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.

**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).

**Federalism**

A rule has implications for federalism under Executive Order 13132, Federalism, if it has a substantial direct effect on State or local governments and would either preempt State law or impose a substantial direct cost of compliance on them. We have analyzed this proposed rule under that Order and have determined that it does not have implications for federalism.

**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 or more in any one year.

Though this proposed rule will not result in such expenditure, we do discuss the effects of this proposed rule elsewhere in this preamble.

**Taking of Private Property**

This proposed rule will not effect the taking of private property or otherwise have taking implications under Executive Order 12630, Governmental Actions and Interference with Constitutionally Protected Property Rights.

**Civil Justice Reform**

This proposed rule meets applicable standards in sections 3(a) and 3(b)(2) of Executive Order 12988, Civil Justice Reform, to minimize litigation, eliminate ambiguity, and reduce burden.

**Protection of Children**

We have analyzed this proposed rule under Executive Order 13045, Protection of Children from Environmental Health Risks and Safety Risks. This proposed rule is not an economically significant rule and does not create an environmental risk to health or risk to safety that may disproportionately affect children.

**Indian Tribal Governments**

The Coast Guard recognizes the treaty rights of Native American Tribes. Moreover, the Coast Guard is committed to working with Tribal Governments to implement local policies and to mitigate tribal concerns. We have determined that these special local regulations and fishing rights protection need not be incompatible. We have also determined that this Proposed 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. Nevertheless, Indian Tribes that have questions concerning the provisions of this Proposed Rule or options for compliance are encouraged to contact the point of contact listed under **FOR FURTHER INFORMATION CONTACT**.

**Energy Effects**

We have analyzed this proposed rule under Executive Order 13211, Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use. We have determined that it is not a ''significant energy action'' under that order because it is not a ''significant regulatory action'' under Executive Order 12866 and is not likely to have a significant adverse effect on the supply, distribution, or use of energy. The Administrator of the Office of Information and Regulatory Affairs has not designated it as a significant energy action. Therefore, it does not require a Statement of Energy Effects under Executive Order 13211.

**Technical Standards**

The National Technology Transfer and Advancement Act (NTTAA) (15 U.S.C. 272 note) directs agencies to use voluntary consensus standards in their regulatory activities unless the agency provides Congress, through the Office of Management and Budget, with an explanation of why using these standards would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., specifications of materials, performance, design, or operation; test methods; sampling procedures; and related management systems practices) that are developed or adopted by voluntary consensus standards bodies.

This proposed rule does not use technical standards. Therefore, we did not consider the use of voluntary consensus standards.

**Environment**

We have analyzed this proposed rule under Commandant Instruction M16475.lD which guides the Coast Guard in complying with the National Environmental Policy Act of 1969 (NEPA) (42 U.S.C. 4321–4370f), and have made a preliminary determination that this action is not likely to have a significant impact on the human environment. A preliminary ''Environmental Analysis Check List'' is available in the docket where indicated under **ADDRESSES**. We seek any comments or information that may lead to the discovery of a significant environmental impact from the proposed rule.

**List of Subjects in 33 CFR Part 165**

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

For the reasons discussed in the preamble, the Coast Guard proposes 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:** 33 U.S.C. 1226, 1231; 46 U.S.C. Chapter 701; 50 U.S.C. 191, 195; 33 CFR 1.05–1, 6.04–1, 6.04–6, and 160.5; Pub. L. 107–295, 116 Stat. 2064; Department of Homeland Security Delegation No. 0170.1.

2. Add § 165.T09–005 to read as follows:

**§ 165.T09–005 Safety Zone; Rochester Harborfest, Lake Ontario at the Genesee River, Rochester, NY.**

(a) *Location.* The following area is a temporary safety zone: All waters of Lake Ontario at Genesee River, Rochester, NY within a five hundred foot radius of position 43°15′21″ N, 077°36′19″ W. [DATUM: NAD 83]. Located on the Ontario Beach West pier.

(b) *Effective Period.* This regulation is effective from 9:30 p.m. to 10 p.m. on June 21, 2008.

(c) *Regulations.* (1) The general regulations contained in 33 CFR 165.23 apply.

(2) All persons and vessels must comply with the instructions of the Coast Guard Captain of the Port or the designated on scene patrol personnel. Coast Guard patrol personnel include commissioned, warrant, and petty officers of the U.S. Coast Guard. Upon being hailed by a U.S. Coast Guard vessel via siren, radio, flashing light, or other means, the operator shall proceed as directed.

(3) Commercial vessels may request permission from the Captain of the Port Buffalo to transit the safety zone. Approval will be made on a case-by-case basis. Requests must be made in advance and approved by the Captain of the Port before transits will be authorized. The Captain of the Port may be contacted via U.S. Coast Guard Sector Buffalo on Channel 16, VHF–FM.

Dated: April 14, 2008.

**S.J. Ferguson,**

*Captain, U.S. Coast Guard, Captain of the Port Buffalo.*

[FR Doc. E8–10001 Filed 5–5–08; 8:45 am]

BILLING CODE 4910–15–P

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## DEPARTMENT OF HOMELAND SECURITY

## Coast Guard

## 33 CFR Part 165

**[Docket No. USCG–2008–0328]**

**RIN 1625–AA11**

## Safety Zone; Thunder on Niagara, Niagara River, North Tonawanda, NY

**AGENCY:** Coast Guard, DHS.

**ACTION:** Notice of proposed rulemaking.

**SUMMARY:** The Coast Guard proposes establishment of a safety zone for a powerboat race in the Captain of the Port Buffalo zone. This proposed rule is intended to restrict vessels from areas of water during events that pose a hazard to public safety. The safety zone established by this proposed rule is necessary to protect spectators, participants, and vessels from the hazards associated with a powerboat race.

**DATES:** Comments and related materials must reach the Coast Guard on or before May 21, 2008.

**ADDRESSES:** You may mail comments and related material to Commander, U.S. Coast Guard Sector Buffalo, 1 Fuhrmann Boulevard, Buffalo, NY 14203. Sector Buffalo Prevention Department maintains the public docket for this rulemaking. Comments and material received from the public, as well as documents indicated in this preamble as being available in the docket, will become part of this docket and will be available for inspection or copying at U.S. Coast Guard Sector Buffalo between 8 a.m. and 3 p.m., Monday through Friday, except Federal holidays.

**FOR FURTHER INFORMATION CONTACT:** If you have further questions on this rule, contact Lieutenant Tracy Wirth, U.S. Coast Guard Sector Buffalo, at (716) 843–9573.

**SUPPLEMENTARY INFORMATION:**

## Request for Comments

We encourage you to participate in this rulemaking by submitting comments and related material. If you do so, please include your name and address, identify the docket number for this rulemaking [USCG–2008–0328], indicate the specific section of this document to which each comment applies, and give the reason for each comment. Please submit all comments and related material in an unbound format, no larger than 8½ by 11 inches, suitable for copying. If you would like to know they reached us, please enclose a stamped, self-addressed postcard or envelope. We will consider all comments and material received during the comment period. We may change this proposed rule in view of them.

## Public Meeting

We do not now plan to hold a public meeting. But you may submit a request for a meeting by writing to Commander, Coast Guard Sector Buffalo at the address under **ADDRESSES** explaining why one would be beneficial. If we determine that one would aid this rulemaking, we will hold one at a time and place announced by a later notice in the **Federal Register**.

## Background and Purpose

Temporary safety zones are necessary to ensure the safety of vessels and spectators from the hazards associated with powerboat races. Based on recent accidents that have occurred in other Captain of the Port zones, the Captain of the Port Buffalo, has determined powerboat races pose significant risks to public safety and property. The likely combination of large numbers of recreational vessels, congested waterways, and alcohol use, could easily result in serious injuries or fatalities.

## Discussion of Proposed Rule

The proposed rule and associated safety zones are necessary to ensure the safety of vessels and people during events in the Captain of the Port Buffalo area of responsibility that may pose a hazard to the public. The proposed safety zone is described in subparagraph (1) of this regulation. The proposed safety zone will be enforced only immediately before and during the event which poses hazard to the public and only upon notice by the Captain of the Port. The Captain of the Port Buffalo will cause notice of enforcement of the safety zone established by this section to be made by all appropriate means to the affected segments of the public including publication in the **Federal Register** in accordance with 33 CFR 165.7(a). Such means of notification may also include, but are not limited to, Broadcast Notice to Mariners or Local Notice to Mariners. The Captain of the Port will issue a Broadcast Notice to Mariners notifying the public when enforcement of the safety zone established by this section is suspended.

## Regulatory Evaluation

This proposed rule is not a ''significant regulatory action'' under section 3(f) of Executive Order 12866, Regulatory Planning and Review, and does not require an assessment of potential costs and benefits under section 6(a)(3) of that Order. The Office of Management and Budget has not reviewed it under that Order.

We expect the economic impact of this proposed rule to be so minimal that a full Regulatory Evaluation is unnecessary.

The Coast Guard's use of this safety zone will be periodic in nature, of short duration, and designed to minimize the impact on navigable waters. This safety zone will only be enforced immediately before and during the time the event occurs. Furthermore, this safety zone has been designed to allow vessels to transit unrestricted to portions of the waterway not affected by the safety zone. The Coast Guard expects insignificant adverse impact to mariners from the activation of this safety zone.

## Small Entities

Under the Regulatory Flexibility Act (5 U.S.C. 601–612), we have considered whether this proposed rule would have a significant economic impact on a substantial number of small entities. 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.

This proposed rule would affect the following entities, some of which might be small entities: The owners or operators of vessels intending to transit or anchor in the area designated as the safety zone in subparagraph (1) during the date and time the safety zone is being enforced. This safety zone would not have a significant economic impact on a substantial number of small entities for the following reasons. The safety zone in this proposed rule would be in effect for short periods of time and only once per year. The safety zone has been designed to allow traffic to pass safely around the zone whenever possible and vessels will be allowed to pass through the zone with the permission of the Captain of the Port.

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.

## Assistance for Small Entities

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 so that they can better evaluate its effects on them and participate in the rulemaking. 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 contact LT Tracy Wirth, Prevention Department, Coast Guard Sector Buffalo, Buffalo, NY

at (716) 843–9573. 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.

**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).

**Federalism**

A rule has implications for federalism under Executive Order 13132, Federalism, if it has a substantial direct effect on State or local governments and would either preempt State law or impose a substantial direct cost of compliance on them. We have analyzed this proposed rule under that Order and have determined that it does not have implications for federalism.

**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 or more in any one year. Though this proposed rule will not result in such expenditure, we do discuss the effects of this proposed rule elsewhere in this preamble.

**Taking of Private Property**

This proposed rule will not effect the taking of private property or otherwise have taking implications under Executive Order 12630, Governmental Actions and Interference with Constitutionally Protected Property Rights.

**Civil Justice Reform**

This proposed rule meets applicable standards in sections 3(a) and 3(b)(2) of Executive Order 12988, Civil Justice Reform, to minimize litigation, eliminate ambiguity, and reduce burden.

**Protection of Children**

We have analyzed this proposed rule under Executive Order 13045, Protection of Children from Environmental Health Risks and Safety Risks. This proposed rule is not an economically significant rule and does not create an environmental risk to health or risk to safety that may disproportionately affect children.

**Indian Tribal Governments**

The Coast Guard recognizes the treaty rights of Native American Tribes. Moreover, the Coast Guard is committed to working with Tribal Governments to implement local policies and to mitigate tribal concerns. We have determined that these special local regulations and fishing rights protection need not be incompatible. We have also determined that this Proposed 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. Nevertheless, Indian Tribes that have questions concerning the provisions of this Proposed Rule or options for compliance are encouraged to contact the point of contact listed under **FOR FURTHER INFORMATION CONTACT**.

**Energy Effects**

We have analyzed this proposed rule under Executive Order 13211, Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use. We have determined that it is not a ''significant energy action'' under that order because it is not a ''significant regulatory action'' under Executive Order 12866 and is not likely to have a significant adverse effect on the supply, distribution, or use of energy. The Administrator of the Office of Information and Regulatory Affairs has not designated it as a significant energy action. Therefore, it does not require a Statement of Energy Effects under Executive Order 13211.

**Technical Standards**

The National Technology Transfer and Advancement Act (NTTAA) (15 U.S.C. 272 note) directs agencies to use voluntary consensus standards in their regulatory activities unless the agency provides Congress, through the Office of Management and Budget, with an explanation of why using these standards would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., specifications of materials, performance, design, or operation; test methods; sampling procedures; and related management systems practices) that are developed or adopted by voluntary consensus standards bodies.

This proposed rule does not use technical standards. Therefore, we did not consider the use of voluntary consensus standards.

**Environment**

We have analyzed this proposed rule under Commandant Instruction M16475.lD which guides the Coast Guard in complying with the National Environmental Policy Act of 1969 (NEPA) (42 U.S.C. 4321–4370f), and have made a preliminary determination that this action is not likely to leave a significant impact on the human environment. A preliminary ''Environmental Analysis Check List'' is available in the docket where indicated under **ADDRESSES**. We seek any comments or information that may lead to the discovery of a significant environmental impact from this proposed rule.

**List of Subjects in 33 CFR Part 165**

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

For the reasons discussed in the preamble, the Coast Guard proposes 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:** 33 U.S.C. 1226, 1231; 46 U.S.C. Chapter 701; 50 U.S.C. 191, 195; 33 CFR 1.05–1, 6.04–1, 6.04–6, and 160.5; Pub. L. 107–295, 116 Stat. 2064; Department of Homeland Security Delegation No. 0170.1.

2. Add § 165.T09–002 to read as follows:

**§ 165.T09–002 Safety Zone; Thunder on Niagara, Niagara River, North Tonawanda, NY.**

(a) *Location.* The following area is a temporary safety zone: all waters of the Upper Niagara River, North Tonawanda, NY within two miles of the Grand Island Bridge located at 42°03′36″ N, 078°54′45″ W to 43°03′09″ N, 078°55′21″ W to 43°03′00″ N, 078°53′42″ W to 43°02′42″ N, 078°54′09″ W. All Geographic coordinates are North American Datum of 1983 (NAD 83).

(b) *Effective Period.* This regulation is effective from 11 a.m. May 31, 2008 to 6 p.m. June 1, 2008. This zone will be enforced from 11 a.m. to 6 p.m. on May 31, 2008 and June 1, 2008.

(c) *Regulations.*

(1) The general regulations contained in 33 CFR 165.23 apply.

(2) All persons and vessels must comply with the instructions of the Coast Guard Captain of the Port or the designated on scene patrol personnel. Coast Guard patrol personnel include commissioned, warrant, and petty officers of the U.S. Coast Guard. Upon

being hailed by a U.S. Coast Guard vessel via siren, radio, flashing light, or other means, the operator shall proceed as directed.

(3) Commercial vessels may request permission from the Captain of the Port Buffalo to transit the safety zone. Approval will be made on a case-by-case basis. Requests must be made in advance and approved by the Captain of the Port before transits will be authorized. The Captain of the Port may be contacted via U.S. Coast Guard Sector Buffalo on Channel 16, VHF–FM.

Dated: April 14, 2008.

**S.J. Ferguson,**

*Captain, U.S. Coast Guard, Captain of the Port Buffalo.*

[FR Doc. E8–10005 Filed 5–5–08; 8:45 am]

**BILLING CODE 4910–15–P**

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## DEPARTMENT OF HOMELAND SECURITY

## Coast Guard

## 33 CFR Part 165

**[Docket No. USCG–2008–0092]**

**RIN 1625–AA00**

## Safety Zone; Ybor Summer Weekly Fireworks—Ybor Turning Basin, Tampa Bay, FL

**AGENCY:** Coast Guard, DHS.

**ACTION:** Notice of proposed rulemaking.

**SUMMARY:** The Coast Guard proposes to establish a temporary safety zone on the waters of Ybor Turning Basin, Tampa Bay, Florida. This rule is necessary to protect participants and spectators from the hazards associated with launching fireworks over the navigable waters of the United States. No person or vessel may anchor, moor, or transit the Regulated Area without permission of the Captain of the Port St. Petersburg, Florida.

**DATES:** Comments and related material must reach the Coast Guard on or before June 5, 2008

**ADDRESSES:** You may submit comments identified by Coast Guard docket number USCG–2008–0092 to the Docket Management Facility at the U.S. Department of Transportation. To avoid duplication, please use only one of the following methods:

(1) *Online: http://www.regulations.gov.*

(2) *Mail:* Docket Management Facility (M–30), U.S. Department of Transportation, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue, SE., Washington, DC 20590–0001.

(3) *Hand delivery:* Room W12–140 on the Ground Floor of the West Building, 1200 New Jersey Avenue, SE., Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The telephone number is 202–366–9329.

(4) *Fax:* 202–493–2251.

**FOR FURTHER INFORMATION CONTACT:** If you have questions on this proposed rule, call BM1 Charles Voss at Coast Guard Sector St. Petersburg, (813) 228–2191 Ext 8307. If you have questions on viewing or submitting material to the docket, call Renee V. Wright, Program Manager, Docket Operations, telephone 202–366–9826.

**SUPPLEMENTARY INFORMATION:**

### Public Participation and Request for Comments

We encourage you to participate in this rulemaking by submitting comments and related materials. All comments received will be posted, without change, to *http://www.regulations.gov* and will include any personal information you have provided. We have an agreement with the Department of Transportation (DOT) to use the Docket Management Facility. Please see DOT's ''Privacy Act'' paragraph below.

*Submitting Comments*

If you submit a comment, please include the docket number for this rulemaking (USCG–2008–0092), indicate the specific section of this document to which each comment applies, and give the reason for each comment. We recommend that you include your name and a mailing address, an e-mail address, or a phone number in the body of your document so that we can contact you if we have questions regarding your submission. You may submit your comments and material by electronic means, mail, fax, or delivery to the Docket Management Facility at the address under **ADDRESSES**; but please submit your comments and material by only one means. If you submit them by mail or delivery, submit them in an unbound format, no larger than 8½ by 11 inches, suitable for copying and electronic filing. If you submit them by mail and would like to know that they reached the Facility, please enclose a stamped, self-addressed postcard or envelope. We will consider all comments and material received during the comment period. We may change this proposed rule in view of them.

*Viewing Comments and Documents*

To view comments, as well as documents mentioned in this preamble as being available in the docket, go to *http://www.regulations.gov* at any time. Enter the docket number for this rulemaking (USCG–2008–0092) in the Search box, and click ''Go >>.'' You may also visit either the Docket Management Facility in Room W12–140 on the ground floor of the DOT West Building, 1200 New Jersey Avenue, SE, Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays; or the Coast Guard Sector St. Petersburg, Prevention Department, 155 Columbia Drive, Tampa, Florida 33606–3598 between 7:30 a.m. and 3:30 p.m., Monday through Friday, except Federal holidays.

*Privacy Act*

Anyone can 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 the Department of Transportation's Privacy Act Statement in the **Federal Register** published on April 11, 2000 (65 FR 19477), or you may visit *http://DocketsInfo.dot.gov.*

*Public Meeting*

We do not now plan to hold a public meeting. But you may submit a request for one to the Docket Management Facility at the address under **ADDRESSES** explaining why one would be beneficial. If we determine that one would aid this rulemaking, we will hold one at a time and place announced by a later notice in the **Federal Register**.

### Background and Purpose

Downtown Tampa Attractions Association is sponsoring weekly summer fireworks displays at Channelside in Tampa, FL. The Fireworks display will be launched from a barge located within the Ybor Turning Basin beginning on the Sunday prior to Memorial Day, every Friday from June 6th until the last Friday of August, and concluding on the Sunday prior to Labor Day. The fireworks event is scheduled to commence at 9 p.m. local and will last approximately fifteen minutes. This proposed rule is needed to protect participant and spectator craft in the vicinity of the fireworks presentation from the hazards associated with the launching of fireworks. This safety zone is being established to ensure safety of life during the fireworks display.

### Discussion of Proposed Rule

The proposed safety zone will encompass the following: All waters

from surface to bottom, within a 350-foot radius around the fireworks barge, within the Ybor Turning Basin, located in approximate position: 27°56′29″ N, 082° 26′ 43″ W. Vessels would be prohibited from anchoring, mooring, or transiting within the safety zone, unless authorized by the Captain of the Port St. Petersburg or a designated representative. The safety zone will be effective from 8:30 p.m. through 9:45 p.m. on May 25, August 31, and every Friday from June 6 through August 29, 2008. The safety zone will commence approximately thirty minutes prior to the transit of the fireworks barge from Gulf Marine to the Ybor Turning Basin. This thirty minute period will enable Coast Guard and/or local law enforcement vessels to conduct a sweep of the zone to ensure that it is clear prior to the transit of the barge. The zone will be effective during the transit of the barge to the turning basin during the fireworks display and will conclude when the barge is moored at Gulf Marine. An additional thirty minute period has been added to account for possible delays of the fireworks display.

**Regulatory Evaluation**

This proposed rule is not a ''significant regulatory action'' under section 3(f) of Executive Order 12866, Regulatory Planning and Review, and does not require an assessment of potential costs and benefits under section 6(a)(3) of that Order. The Office of Management and Budget has not reviewed it under that Order.

We expect the economic impact of this proposed rule to be so minimal that a full Regulatory Evaluation is unnecessary.

The rule will only be effective for one hour and fifteen minutes during a time when vessel traffic is expected to be minimal. Moreover, vessels may still enter the safety zone with the express permission of the Captain of the port Sector St. Petersburg or a designated representative.

**Small Entities**

Under the Regulatory Flexibility Act (5 U.S.C. 601–612), we have considered whether this proposed rule would have a significant economic impact on a substantial number of small entities. 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. This rule may affect the following entities, some of which may be small entities: the owners or operators of vessels intending to transit Ybor Turning Basin. This safety zone will not have a significant economic impact on a substantial number of small entities for the following reasons: this rule will be enforced for a limited time when marine traffic is expected to be minimal; additionally traffic will be allowed to enter the zone with the permission of the Captain of the Port Sector St. Petersburg or his designated representative.

If you think that your business, organization, or governmental jurisdiction qualifies as a small entity and that this 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.

**Assistance for Small Entities**

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 so that they can better evaluate its effects on them and participate in the rulemaking. 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 office listed under **FOR FURTHER INFORMATION CONTACT**. 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.

**Collection of Information**

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

**Federalism**

A rule has implications for federalism under Executive Order 13132, Federalism, if it has a substantial direct effect on State or local governments and would either preempt State law or impose a substantial direct cost of compliance on them. We have analyzed this proposed rule under that Order and have determined that it does not have implications for federalism.

**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 or more in any one year. Though this proposed rule would not result in such an expenditure, we do discuss the effects of this rule elsewhere in this preamble.

**Taking of Private Property**

This proposed rule would not effect a taking of private property or otherwise have taking implications under Executive Order 12630, Governmental Actions and Interference with Constitutionally Protected Property Rights.

**Civil Justice Reform**

This proposed rule meets applicable standards in sections 3(a) and 3(b)(2) of Executive Order 12988, Civil Justice Reform, to minimize litigation, eliminate ambiguity, and reduce burden.

**Protection of Children**

We have analyzed this proposed rule under Executive Order 13045, Protection of Children from Environmental Health Risks and Safety Risks. This rule is not an economically significant rule and would not create an environmental risk to health or risk to safety that might disproportionately affect children.

**Indian Tribal Governments**

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.

**Energy Effects**

We have analyzed this proposed rule under Executive Order 13211, Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use. We have determined that it is not a ''significant energy action'' under that order because it is not a ''significant regulatory action'' under Executive Order 12866 and is not likely to have a significant adverse effect on the supply, distribution, or use of energy. The Administrator of the Office of Information and Regulatory Affairs has not designated it as a significant energy action. Therefore, it does not require a Statement of Energy Effects under Executive Order 13211.

**Technical Standards**

The National Technology Transfer and Advancement Act (NTTAA) (15 U.S.C. 272 note) directs agencies to use voluntary consensus standards in their regulatory activities unless the agency provides Congress, through the Office of Management and Budget, with an explanation of why using these standards would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., specifications of materials, performance, design, or operation; test methods; sampling procedures; and related management systems practices) that are developed or adopted by voluntary consensus standards bodies.

This proposed rule does not use technical standards. Therefore, we did not consider the use of voluntary consensus standards.

**Environment**

We have analyzed this proposed rule under Commandant Instruction M16475.lD which guides the Coast Guard in complying with the National Environmental Policy Act of 1969 (NEPA) (42 U.S.C. 4321–4370f), and have made a preliminary determination that this action is not likely to have a significant effect on the human environment. Therefore, we believe that this rule should be categorically excluded, under figure 2–1, paragraph (34) (g) of the Instruction, from further environmental documentation. A preliminary ''Environmental Analysis Check List'' is available in the docket where indicated under **ADDRESSES**. We seek any comments or information that may lead to the discovery of a significant environmental impact from this proposed rule.

**List of Subjects in 33 CFR Part 165**

Harbors, Marine safety, Navigation (water), Reporting and Recordkeeping Requirements, Security measures, and 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:** 33 U.S.C. 1226, 1231; 46 U.S.C. Chapter 701; 50 U.S.C. 191; 33 CFR 1.05–1, 6.04–1, 6.04–6, and 160.5; Pub. L. 107–295, 116 Stat. 2064; Department of Homeland Security Delegation No. 0170.1.

2. A new temporary section 165.T08–0092 is added to read as follows:

**§ 165.T08–0092 Safety Zone; Ybor Summer Weekly Fireworks—Ybor Turning Basin, Tampa Bay, Florida.**

(a) *Regulated area.* The Coast Guard is establishing a temporary safety zone on the waters of Tampa Bay, Florida in the Ybor Turning Basin, that includes all the waters from surface to bottom, within a 350 foot radius of the fireworks barge located in approximate position: 27°56′29″ N, 082°26′43″ W. All coordinates referenced use datum: NAD 83.

(b) *Definitions.* The following definitions apply to this section:

*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 (COTP), St. Petersburg, Florida, in the enforcement of regulated navigation areas and safety and security zones.

(c) *Regulations.* In accordance with the general regulations in § 165.23 of this part, no person or vessel may anchor, moor, or transit the Regulated Area without permission of the Captain of the Port St. Petersburg, Florida, or his designated representative. The Coast Guard will issue broadcast notice to mariners to advise mariners of this rule.

(d) *Effective Period.* This rule will be effective during the fireworks demonstrations which will take place from 8:30 p.m. through 9:45 p.m. on May 25, August 31, and every Friday from June 6 through August 29, 2008. A designated representative will be on-scene while the zone is enforced.

(e) *Dates.* This rule is in effect from 8:30 p.m. on May 25 through 9:45 p.m. on August 31, 2008.

Dated: March 25, 2008.

**J.A. Servidio,**

*Captain, U.S. Coast Guard, Captain of the Port, St. Petersburg, Florida.*

[FR Doc. E8–10002 Filed 5–5–08; 8:45 am]

**BILLING CODE 4910–15–P**

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## DEPARTMENT OF TRANSPORTATION

### National Highway Traffic Safety Administration

### 49 CFR Part 544

**[Docket No.: NHTSA–2008–0055]**

**RIN 2127–AK30**

### Insurer Reporting Requirements; List of Insurers Required To File Reports

**AGENCY:** National Highway Traffic Safety Administration (NHTSA), Department of Transportation (DOT).

**ACTION:** Notice of proposed rulemaking.

**SUMMARY:** This document proposes to amend Appendices A and C of 49 CFR Part 544, Insurer Reporting Requirements. The appendices list those passenger motor vehicle insurers that are required to file reports on their motor vehicle theft loss experiences. An insurer included in any of these appendices would be required to file three copies of its report for the 2005 calendar year before October 25, 2008. If the passenger motor vehicle insurers remain listed, they must submit reports by each subsequent October 25. We are proposing to add and remove several insurers from relevant appendices.

**DATES:** Comments must be submitted not later than July 7, 2008. Insurers listed in the appendices are required to submit reports on or before October 25, 2008.

**ADDRESSES:** You may submit comments, identified by DOT Docket No. NHTSA–2007–0055 by any of the following methods:

- *Federal eRulemaking Portal:* Go to *http://www.regulations.gov*. Follow the online instructions for submitting comments.
- *Mail:* Docket Management Facility: U.S. Department of Transportation, 1200 New Jersey Avenue, SE., West Building, Ground Floor, Room W12–140, Washington, DC 20590–0001.
- *Hand Delivery or Courier:* West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue, SE., Washington, DC, between 9 a.m. and 5 p.m. ET, Monday through Friday, except Federal holidays.
- *Fax:* 1–202–493–2251.

*Instructions:* 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. Note that all comments received will be posted without change to *http://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 *http://DocketInfo.dot.gov*.

*Docket:* For access to the docket to read background documents or comments received, go to the street

address listed above. The internet access to the docket will be at *http://www.regulations.gov*. Follow the online instructions for accessing the dockets.

**FOR FURTHER INFORMATION CONTACT:** Rosalind Proctor, Office of International Policy, Fuel Economy and Consumer Programs, NHTSA, 1200 New Jersey Avenue, SE., Washington, DC 20590, by electronic mail to *rosalind.proctor@dot.gov*. Ms. Proctor's telephone number is (202) 366–0846. Her fax number is (202) 493–0073.

**SUPPLEMENTARY INFORMATION:**

## I. Background

Pursuant to 49 U.S.C. 33112, *Insurer reports and information*, NHTSA requires certain passenger motor vehicle insurers to file an annual report with the agency. Each insurer's report includes information about thefts and recoveries of motor vehicles, the rating rules used by the insurer to establish premiums for comprehensive coverage, the actions taken by the insurer to reduce such premiums, and the actions taken by the insurer to reduce or deter theft. Under the agency's regulation, 49 CFR Part 544, the following insurers are subject to the reporting requirements:

(1) issuers of motor vehicle insurance policies whose total premiums account for 1 percent or more of the total premiums of motor vehicle insurance issued within the United States;

(2) issuers of motor vehicle insurance policies whose premiums account for 10 percent or more of total premiums written within any one state; and

(3) rental and leasing companies with a fleet of 20 or more vehicles not covered by theft insurance policies issued by insurers of motor vehicles, other than any governmental entity.

Pursuant to its statutory exemption authority, the agency exempted certain passenger motor vehicle insurers from the reporting requirements.

### *A. Small Insurers of Passenger Motor Vehicles*

Section 33112(f)(2) provides that the agency shall exempt small insurers of passenger motor vehicles if NHTSA finds that such exemptions will not significantly affect the validity or usefulness of the information in the reports, either nationally or on a state-by-state basis. The term ''small insurer'' is defined, in Section 33112(f)(1)(A) and (B), as an insurer whose premiums for motor vehicle insurance issued directly or through an affiliate, including pooling arrangements established under state law or regulation for the issuance of motor vehicle insurance, account for less than 1 percent of the total premiums for all forms of motor vehicle insurance issued by insurers within the United States. However, that section also stipulates that if an insurance company satisfies this definition of a ''small insurer,'' but accounts for 10 percent or more of the total premiums for all motor vehicle insurance issued in a particular state, the insurer must report about its operations in that state.

In the final rule establishing the insurer reports requirement (52 FR 59; January 2, 1987), 49 CFR Part 544, NHTSA exercised its exemption authority by listing in Appendix A each insurer that must report because it had at least 1 percent of the motor vehicle insurance premiums nationally. Listing the insurers subject to reporting, instead of each insurer exempted from reporting because it had less than 1 percent of the premiums nationally, is administratively simpler since the former group is much smaller than the latter. In Appendix B, NHTSA lists those insurers required to report for particular states because each insurer had a 10 percent or greater market share of motor vehicle premiums in those states. In the January 1987 final rule, the agency stated that it would update Appendices A and B annually. NHTSA updates the appendices based on data voluntarily provided by insurance companies to A.M. Best[1] A.M. Best publishes in its *State/Line Report* each spring. The agency uses the data to determine the insurers' market shares nationally and in each state.

### *B. Self-insured Rental and Leasing Companies*

In addition, upon making certain determinations, NHTSA grants exemptions to self-insurers, i.e., any person who has a fleet of 20 or more motor vehicles (other than any governmental entity) used for rental or lease whose vehicles are not covered by theft insurance policies issued by insurers of passenger motor vehicles, 49 U.S.C. 33112(b)(1) and (f). Under 49 U.S.C. 33112(e)(1) and (2), NHTSA may exempt a self-insurer from reporting, if the agency determines:

(1) the cost of preparing and furnishing such reports is excessive in relation to the size of the business of the insurer; and 33112(e)(1) and (2),

(2) the insurer's report will not significantly contribute to carrying out the purposes of Chapter 331.

In a final rule published June 22, 1990 (55 FR 25606), the agency granted a class exemption to all companies that rent or lease fewer than 50,000 vehicles, because it believed that the largest companies' reports sufficiently represent the theft experience of rental and leasing companies. NHTSA concluded that smaller rental and leasing companies' reports do not significantly contribute to carrying out NHTSA's statutory obligations and that exempting such companies will relieve an unnecessary burden on them. As a result of the June 1990 final rule, the agency added Appendix C, consisting of an annually updated list of the self-insurers subject to Part 544. Following the same approach as in Appendix A, NHTSA included, in Appendix C, each of the self-insurers subject to reporting instead of the self-insurers which are exempted.

NHTSA updates Appendix C based primarily on information from *Automotive Fleet Magazine and Auto Rental News*.[2]

### *C. When a Listed Insurer Must File a Report*

Under Part 544, as long as an insurer is listed, it must file reports on or before October 25 of each year. Thus, any insurer listed in the appendices must file a report before October 25, and by each succeeding October 25, absent an amendment removing the insurer's name from the appendices.

## II. Proposal

### *1. Insurers of Passenger Motor Vehicles*

Appendix A lists insurers that must report because each had 1 percent of the motor vehicle insurance premiums on a national basis. The list was last amended in a final rule published on August 30, 2007 (72 FR 50077). Based on the 2005 calendar year data market shares from A.M. Best, NHTSA proposes to remove CNA Insurance Companies and add Auto Club Southern California Group and California State Auto Group to Appendix A.

Each of the 19 insurers listed in Appendix A are required to file a report before October 25, 2008, setting forth the information required by Part 544 for each State in which it did business in the 2005 calendar year. As long as these 19 insurers remain listed, they will be required to submit reports by each subsequent October 25 for the calendar year ending slightly less than 3 years before.

Appendix B lists insurers required to report for particular States for calendar

[1] A.M. Best Company is a well-recognized source of insurance company ratings and information. 49 U.S.C. 33112(i) authorizes NHTSA to consult with public and private organizations as necessary.

[2] Automotive Fleet Magazine and Auto Rental News are publications that provide information on the size of fleets and market share of rental and leasing companies.

year 2005, because each insurer had a 10 percent or greater market share of motor vehicle premiums in those States. Based on the 2005 calendar year data for market shares from A.M. Best, we propose to make no changes.

The nine insurers listed in Appendix B are required to report on their calendar year 2005 activities in every State where they had a 10 percent or greater market share. These reports must be filed by October 25, 2008, and set forth the information required by Part 544. As long as these nine insurers remain listed, they would be required to submit reports on or before each subsequent October 25 for the calendar year ending slightly less than 3 years before.

*2. Rental and Leasing Companies*

Appendix C lists rental and leasing companies required to file reports. However, subsequent to publishing the final rule (See 71 FR 52292), the agency was informed by Enterprise Rent-A-Car Company (Enterprise) on behalf of its subsidiary, Enterprise Fleet Services (EFS), that when EFS offers vehicles for lease, it also includes as a condition of its lease agreement that lessees purchase and maintain its own motor vehicle insurance. Enterprise also submitted a copy of EFS' lease agreement showing that insurance was required as a condition of the lease. Enterprise further stated that EFS' lessees are also given the option of contractually waiving (''self-insuring'') the physical damage, including theft, of the leased vehicle by the Enterprise entity but states that the total number of self-insured vehicles in EFS' fleet is well under the 50,000 exemption threshold. Therefore, Enterprise Rent-A-Car has requested that Enterprise Fleet Services be removed from the list of insurers required to meet the insurer reporting requirements. Since Enterprise Fleet Services requires its lessees to provide the insurance for its vehicles or does not self-insure 50,000 or more of its vehicles in its leasing fleet, it does not meet the criteria the agency uses to determine that an insurer should be included in Appendix C. Therefore, NHTSA proposes to remove Enterprise Fleet Services from the list of insurers required to meet the reporting requirements.

Each of the seven companies (including franchisees and licensees) listed in Appendix C would be required to file reports for calendar year 2005 no later than October 25, 2008, and set forth the information required by Part 544. As long as those seven companies remain listed, they would be required to submit reports before each subsequent October 25 for the calendar year ending slightly less than 3 years before.

## III. Regulatory Impacts

*1. Costs and Other Impacts*

This notice has not been reviewed under Executive Order 12866. NHTSA has considered the impact of this proposed rule and determined that the action is not ''significant'' within the meaning of the Department of Transportation's regulatory policies and procedures. This proposed rule implements the agency's policy of ensuring that all insurance companies that are statutorily eligible for exemption from the insurer reporting requirements are in fact exempted from those requirements. Only those companies that are not statutorily eligible for an exemption are required to file reports.

NHTSA does not believe that this proposed rule, reflecting current data, affects the impacts described in the final regulatory evaluation prepared for the final rule establishing Part 544 (52 FR 59; January 2, 1987). Accordingly, a separate regulatory evaluation has not been prepared for this rulemaking action. Using the Bureau of Labor Statistics Consumer Price Index for 2007 (see *http://www.bls.gov/cpi*), the cost estimates in the 1987 final regulatory evaluation were adjusted for inflation. The agency estimates that the cost of compliance is $103,671 for any insurer added to Appendix A, $41,468 for any insurer added to Appendix B, and $11,964 for any insurer added to Appendix C. If this proposed rule is made final, for Appendix A, the agency would propose to remove one company and add two companies; for Appendix B, the agency would propose that no changes be made; and for Appendix C, the agency would propose to remove one company. The agency estimates that the net effect of this proposal, if made final, would be a cost of approximately $91,707 to insurers as a group.

Interested persons may wish to examine the 1987 final regulatory evaluation. Copies of that evaluation were placed in Docket No. T86–01; Notice 2. Any interested person may obtain a copy of this evaluation by writing to NHTSA, Technical Reference Division, 1201 New Jersey Avenue, SE., East Building, Ground Floor, Room E12–100, Washington, DC 20590, or by calling (202) 366–2588.

*2. Paperwork Reduction Act*

The information collection requirements in this proposed rule were submitted and approved by the Office of Management and Budget (OMB) pursuant to the requirements of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*). This collection of information is assigned OMB Control Number 2127–0547 (''Insurer Reporting Requirements''), is approved for use through August 31, 2009, and the agency will seek to extend the approval afterwards.

*3. Regulatory Flexibility Act*

The agency also considered the effects of this rulemaking under the Regulatory Flexibility Act (RFA) (5 U.S.C. 601 *et seq.*). I certify that this proposed rule will not have a significant economic impact on a substantial number of small entities. The rationale for the certification is that none of the companies proposed for Appendices A, B, or C are construed to be a small entity within the definition of the RFA. ''Small insurer'' is defined, in part under 49 U.S.C. 33112, as any insurer whose premiums for all forms of motor vehicle insurance account for less than 1 percent of the total premiums for all forms of motor vehicle insurance issued by insurers within the United States, or any insurer whose premiums within any State, account for less than 10 percent of the total premiums for all forms of motor vehicle insurance issued by insurers within the State. This notice would exempt all insurers meeting those criteria. Any insurer too large to meet those criteria is not a small entity. In addition, in this rulemaking, the agency proposes to exempt all ''self insured rental and leasing companies'' that have fleets of fewer than 50,000 vehicles. Any self-insured rental and leasing company too large to meet that criterion is not a small entity.

*4. Federalism*

This action has been analyzed according to the principles and criteria contained in Executive Order 12612, and it has been determined that the proposed rule does not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

*5. Environmental Impacts*

In accordance with the National Environmental Policy Act, NHTSA has considered the environmental impacts of this proposed rule and determined that it would not have a significant impact on the quality of the human environment.

*6. Regulation Identifier Number (RIN)*

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.

*7. Plain Language*

Executive Order 12866 and the President's memorandum of June 1, 1998, require each agency to write all rules in plain language. Application of the principles of plain language includes consideration of the following questions:

- Have we organized the material to suit the public's needs?
- Are the requirements in the proposal clearly stated?
- Does the proposal contain technical language or jargon that is not clear?
- Would a different format (grouping and order of sections, use of headings, paragraphing) make the rule easier to understand?
- Would more (but shorter) sections be better?
- Could we improve clarity by adding tables, lists, or diagrams?
- What else could we do to make the proposal easier to understand?

If you have any responses to these questions, you can forward them to me several ways:

a. *Mail:* Rosalind Proctor, Office of International Policy, Fuel Economy and Consumer Programs, NHTSA, 1200 New Jersey Avenue, SE., (West Building) Washington, DC 20590;

b. *E-mail: rosalind.proctor@dot.gov;* or

c. *Fax:* (202) 493–0073.

## IV. Comments

*Submission of Comments*

1. How Can I Influence NHTSA's Thinking on This Proposed Rule?

In developing our rules, NHTSA tries to address the concerns of all our stakeholders. Your comments will help us improve this rule. We invite you to provide views on our proposal, new data, a discussion of the effects of this proposal on you, or other relevant information. We welcome your views on all aspects of this proposed rule. Your comments will be most effective if you follow the suggestions below:

- Explain your views and reasoning clearly.
- Provide solid technical and cost data to support your views.
- If you estimate potential costs, explain how you derived the estimate.
- Provide specific examples to illustrate your concerns.
- Offer specific alternatives.
- Include the name, date, and docket number with your comments.

2. How Do I Prepare and Submit Comments?

Your comments must be written in English. To ensure that your comments are correctly filed in the Docket, please include the docket number of this document in your comments.

Your comments must not exceed 15 pages long (49 CFR 553.21). We established this limit to encourage you to write your primary comments concisely. You may attach necessary documents to your comments. We have no limit on the attachments' length.

Please submit two copies of your comments, including the attachments, to Docket Management at the address given above under **ADDRESSES**.

Comments may also be submitted to the docket electronically by logging onto the Federal eRulemaking Portal Web site at *http://www.regulations.gov*. Follow the online instructions for submitting comments.

3. How Can I Be Sure That My Comments Were Received?

If you wish Docket Management to notify you, upon its receipt of your comments, enclose a self-addressed, stamped postcard in the envelope containing your comments. Upon receiving your comments, Docket Management will mail the postcard.

4. How Do I Submit Confidential Business Information?

If you wish to submit any information under a confidentiality claim, you should submit three copies of your complete submission, including the information you claim as confidential business information, to the Chief Counsel, Office of Chief Counsel, NHTSA, 1200 New Jersey Avenue, SE., West Building, Washington, DC 20590. In addition, you should submit two copies, from which you have deleted the claimed confidential business information, to Docket Management at the address given above under **ADDRESSES**. When you send a comment containing information claimed to be confidential business information, you should include a cover letter addressing the information specified in our confidential business information regulation (49 CFR Part 512).

5. Will the Agency Consider Late Comments?

NHTSA will consider all comments that Docket Management receives before the close of business on the comment closing date indicated above under **DATES**. To the extent possible, we will also consider comments that Docket Management receives after that date. If Docket Management receives a comment too late for us to consider, in developing a final rule (assuming that one is issued), we will consider that comment as an informal suggestion for future rulemaking action.

6. How Can I Read the Comments Submitted by Other People?

You may read the comments received by Docket Management at the address given above under **ADDRESSES**. The hours of the Docket are indicated above, in the same location. You may also see the comments on the Internet. To read the comments on the Internet, log onto the Federal eRulemaking Portal at *http://www.regulations.gov*.

## V. Conclusion

Based on the foregoing, we are proposing to amend Appendices A and C of 49 CFR 544, Insurer Reporting Requirements. We are also amending § 544.5 to revise the example given the recent update to the reporting requirements.

**List of Subjects in 49 CFR Part 544**

Crime insurance, Insurance, Insurance companies, Motor vehicles, Reporting and recordkeeping requirements.

In consideration of the foregoing, 49 CFR Part 544 is proposed to be amended as follows:

## PART 544—[AMENDED]

1. The authority citation for Part 544 continues to read as follows:

**Authority:** 49 U.S.C. 33112; delegation of authority at 49 CFR 1.50.

2. Paragraph (a) of § 544.5 is revised to read as follows:

### § 544.5 General requirements for reports.

(a) Each insurer to which this part applies shall submit a report annually before October 25, beginning on October 25, 1986. This report shall contain the information required by § 544.6 of this part for the calendar year 3 years previous to the year in which the report is filed (e.g., the report due by October 25, 2008, will contain the required information for the 2005 calendar year).

* * * * *

3. Appendix A to Part 544 is revised to read as follows:

### Appendix A—Insurers of Motor Vehicle Insurance Policies Subject to the Reporting Requirements in Each State in Which They Do Business

Allstate Insurance Group
American Family Insurance Group
American International Group

Auto Club Southern California Group [1]
Auto-Owners Insurance Group
Erie Insurance Group
Berkshire Hathaway/GEICO Corporation Group
California State Auto Group [1]
Hartford Insurance Group
Liberty Mutual Insurance Companies
Metropolitan Life Auto & Home Group
Mercury General Group
Nationwide Group
Progressive Group
Safeco Insurance Companies
State Farm Group
St. Paul Travelers Companies
USAA Group
Farmers Insurance Group

4. Appendix B to Part 544 is revised to read as follows:

### Appendix B—Issuers of Motor Vehicle Insurance Policies Subject to the Reporting Requirements Only in Designated States

Alfa Insurance Group (Alabama)
Auto Club (Michigan)
Commerce Group, Inc. (Massachusetts)
Farm Bureau of Idaho Group (Idaho)
Kentucky Farm Bureau Group (Kentucky)
New Jersey Manufacturers Group (New Jersey)
Safety Group (Massachusetts)
Southern Farm Bureau Group (Arkansas, Mississippi)
Tennessee Farmers Companies (Tennessee)

5. Appendix C to Part 544 is revised to read as follows:

### Appendix C—Motor Vehicle Rental and Leasing Companies (Including Licensees and Franchisees) Subject to the Reporting Requirements of Part 544

Cendant Car Rental
Dollar Thrifty Automotive Group
EmKay, Inc.
Enterprise Rent-A-Car
Hertz Rent-A-Car Division (subsidiary of The Hertz Corporation)
U-Haul International, Inc. (Subsidiary of AMERCO)
Vanguard Car Rental USA

Issued on May 1, 2008.

**Stephen R. Kratzke,**

*Associate Administrator for Rulemaking.*

[FR Doc. E8–9999 Filed 5–5–08; 8:45 am]

**BILLING CODE 4910–59–P**

[1] Indicates a newly listed company, which must file a report beginning with the report due October 25, 2008.

## DEPARTMENT OF THE INTERIOR

## Fish and Wildlife Service

## 50 CFR Part 17

**[FWS–R6–ES–2008–0053; 1111 FY07 MO–B2]**

## Endangered and Threatened Wildlife and Plants; 12-Month Finding on a Petition to List the White-tailed Prairie Dog (Cynomys leucurus) as Threatened or Endangered

**AGENCY:** Fish and Wildlife Service, Interior.

**ACTION:** Initiation of status review.

**SUMMARY:** We, the U.S. Fish and Wildlife Service (Service), announce the initiation of a status review for the white-tailed prairie dog (*Cynomys leucurus*) throughout its range in the United States. The status review will include analysis of whether the white-tailed prairie dog warrants listing as threatened or endangered under the Endangered Species Act of 1973, as amended (Act). Through this action, we encourage all interested parties to provide us information regarding the status of, and any potential threats to, the white-tailed prairie dog throughout its range, or any significant portion of its range.

**DATES:** We will accept information received or postmarked on or before July 7, 2008 to allow us time to review and consider the information in the evaluation of the status of the species and our 12-month finding.

**ADDRESSES:** You may submit information by one of the following methods:

- *Federal eRulemaking Portal: http://www.regulations.gov.* Follow the instructions for submitting comments.
- *U.S. mail or hand-delivery:* Public Comments Processing, *Attn:* FWS–R6–ES–2008–0053; Division of Policy and Directives Management; U.S. Fish and Wildlife Service; 4401 N. Fairfax Drive, Suite 222; Arlington, VA 22203.

We will not accept e-mail or faxes. We will post all information on *http://www.regulations.gov.* This generally means that we will post any personal information you provide us (see the Information Solicited section below for more information).

**FOR FURTHER INFORMATION CONTACT:** Larry Crist, Field Supervisor, Utah Field Office, U.S. Fish and Wildlife Service, at the above address, or phone (801) 975–3330, ext. 126.

**SUPPLEMENTARY INFORMATION:**

### Information Solicited

To ensure that the status review is complete and based on the best available scientific and commercial information, we are soliciting information concerning the status of the white-tailed prairie dog. We request information from the public, other concerned governmental agencies, Native American Tribes, the scientific community, industry, or any other interested parties. We are opening a 60-day comment period to allow all interested parties an opportunity to provide information on the status of the white-tailed prairie dog throughout its range, including:

(1) Information regarding the species' historical and current population status, distribution, and trends; its biology and ecology; and habitat selection;

(2) Information on the effects of potential threat factors that are the basis for a species' listing determination under section 4 (a) of the Act (16 U.S.C. 1531 *et seq.*), which are:

(a) Present or threatened destruction, modification, or curtailment of the species' habitat or range;

(b) Overutilization for commercial, recreational, scientific, or educational purposes;

(c) Disease or predation;

(d) Inadequacy of existing regulatory mechanisms; and

(e) Other natural or manmade factors affecting its continued existence.

(3) Information on management programs for the conservation of the white-tailed prairie dog.

Please note that submissions merely stating support for or opposition to the action under consideration without providing supporting information, although noted, will not be considered in making a determination, because section 4(b)(1)(A) of the Act directs that determinations as to whether any species is a threatened or endangered species must be made ''solely on the basis of the best scientific and commercial data available.'' At the conclusion of the status review, we will issue a new 12-month finding on the petition, as provided in section 4(b)(3)(B) of the Act.

You may submit your information concerning this status review by one of the methods listed in the **ADDRESSES** section. We will not consider submissions sent by e-mail or fax or to an address not listed in the **ADDRESSES** section.

If you submit information via *http://www.regulations.gov,* your entire submission—including any personal identifying information—will be posted on the Web site. If your submission is

made via a hardcopy that includes personal identifying information, you may request at the top of your document that we withhold this information from public review. However, we cannot guarantee that we will be able to do so. We will post all hardcopy submissions on *http://www.regulations.gov.*

Information and materials we receive, as well as supporting documentation we used in preparing this finding, will be available for public inspection on *http://www.regulations.gov,* or by appointment, during normal business hours, at the U.S. Fish and Wildlife Service's Utah Field Office, 2369 West Orton Circle, Suite 50, West Valley City, Utah 84119, telephone (801) 975–3330.

**Background**

On July 15, 2002, we received a petition from the Center for Native Ecosystems, Forest Guardians, Biodiversity Conservation Alliance, and Terry Tempest Williams requesting that we list the white-tailed prairie dog (*Cynomys leucurus*) as threatened or endangered across its entire range.

Section 4(b)(3)(B) of the Act requires that for any petition to revise the Lists of Threatened and Endangered Wildlife and Plants, to the maximum extent practicable, within 90 days after receiving the petition, we make a finding as to whether the petition presents substantial scientific or commercial information indicating that the petitioned action may be warranted. In addition, within 12 months of the date of the receipt of the petition, we make a finding on whether the petitioned action is: (a) Not warranted, (b) warranted, or (c) warranted but precluded by other pending proposals. Such 12-month findings are to be published promptly in the **Federal Register**.

On November 9, 2004, we announced our 90-day finding (69 FR 64889) that the petition did not present substantial scientific or commercial information indicating that listing may be warranted. On July 12, 2007, in a Director's memorandum, the Service announced that we would review the November 9, 2004, finding after questions were raised about the integrity of scientific information used and whether the decision made was consistent with the appropriate legal standards. We received a lawsuit from the Center for Native Ecosystems, and three other entities, on November 27, 2007, regarding our not substantial 90-day finding. On February 22, 2008, based on our review of the petition and the previous finding, we agreed, in a stipulated settlement agreement, to submit a notice initiating a 12-month finding for the white-tailed prairie dog to the **Federal Register** on or before May 1, 2008, and to submit a 12-month finding for the white-tailed prairie dog to the **Federal Register** on or before June 1, 2010. This notice initiates the 12-month finding for the white-tailed prairie dog. The lawsuit was dismissed February 26, 2008.

At this time, we are soliciting new information on the status and potential threats to the white-tailed prairie dog. We will base our 12-month finding on a review of the best scientific and commercial information available, including all information received as a result of this notice. For more information on the biology, habitat, and range of the white-tailed prairie dog, please refer to our 90-day finding published in the **Federal Register** on November 9, 2004 (69 FR 64889).

We request any new information concerning the status of the white-tailed prairie dog. If you submit information, support it with documentation such as maps, bibliographic references, methods used to gather and analyze the data, or copies of any pertinent publications, reports, or letters by knowledgeable sources.

**Author**

The primary authors of this document are staff of U.S. Fish and Wildlife Service, Utah Field Office.

**Authority**

The authority for this action is the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Dated: April 29, 2008.

**Kenneth Stansell,**

*Acting Director, Fish and Wildlife Service.*

[FR Doc. E8–9830 Filed 5–5–08; 8:45 am]

BILLING CODE 4310–55–P

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## DEPARTMENT OF THE INTERIOR

## Fish and Wildlife Service

## 50 CFR Part 17

**[FWS–R8–ES–2008–0045; 1111–FY07–MO–B2]**

## Endangered and Threatened Wildlife and Plants; Petition To List the San Francisco Bay-Delta Population of the Longfin Smelt (Spirinchus thaleichthys) as Endangered

**AGENCY:** Fish and Wildlife Service, Interior.

**ACTION:** Notice of 90-day petition finding and initiation of status review.

**SUMMARY:** We, the U.S. Fish and Wildlife Service (Service), announce a 90-day finding on a petition to list the San Francisco Bay-Delta population of the longfin smelt (*Spirinchus thaleichthys*) (longfin smelt) as endangered under the Endangered Species Act of 1973, as amended (Act). We find that the petition presents substantial scientific or commercial information indicating that listing the longfin smelt may be warranted. We, therefore, are initiating a status review to determine if listing this species under the Act is warranted. To ensure that the status review is comprehensive, we are soliciting scientific and commercial data and other information regarding this species. We will make a determination on critical habitat for this species if, and when, we initiate a listing action.

**DATES:** To allow us adequate time to conduct this review, we request that information be submitted on or before July 7, 2008.

**ADDRESSES:** You may submit information by one of the following methods:

- *Federal eRulemaking Portal: http://www.regulations.gov.* Follow the instructions for submitting comments.
- *U.S. mail or hand-delivery:* Public Comments Processing, Attn: FWS–R8–ES–2008–0045; Division of Policy and Directives Management; U.S. Fish and Wildlife Service; 4401 N. Fairfax Drive, Suite 222; Arlington, VA 22203.

We will not accept email or faxes. We will post all information received on *http://www.regulations.gov.* This generally means that we will post any personal information you provide us (see the Information Solicited section below for more information).

**FOR FURTHER INFORMATION CONTACT:** Susan Moore, Field Supervisor, or Arnold Roessler, Listing Branch Chief, Sacramento Fish and Wildlife Office, 2800 Cottage Way, Room W–2605, Sacramento, CA 95825; telephone (916) 414–6600; facsimile (916) 414–6712. If you use a telecommunications device for the deaf (TDD), call the Federal Information Relay Service (FIRS) at 800/877–8339.

**SUPPLEMENTARY INFORMATION:**

**Information Solicited**

When we make a finding that a petition presents substantial information to indicate that listing a species may be warranted, we are required to promptly commence a review of the status of the species. To ensure that the status review is complete and based on the best available scientific and commercial information, we are soliciting information concerning the status of the longfin smelt. We request any additional

information from the public, other concerned governmental agencies, Native American tribes, the scientific community, industry, or any other interested parties concerning the status of the longfin smelt, including:

(1) Information on taxonomy, genetics (especially regarding distinct population segments), distribution, habitat selection, food habits, population density and trends, habitat trends, and effects of management on longfin smelt;

(2) Information on the effects of climate change, sea level change, and change in water temperatures on the distribution and abundance of longfin smelt and their principal prey over the short and long term;

(3) Information on the effects of other potential threat factors, including water diversions in the Sacramento-San Joaquin River Delta (Delta), contaminants, invasive species, and changes of the distribution and abundance of longfin smelt and their principal prey over the short and long term;

(4) Information on management programs for longfin smelt conservation, including mitigation measures related to water diversions and development, habitat conservation programs, invasive species control programs, and any other private, tribal, or governmental conservation programs which benefit longfin smelt; and

(5) Information relevant to whether the San Francisco Bay–Delta population of the species may qualify as a distinct population segment (DPS).

You may submit your information concerning this finding by one of the methods listed in the **ADDRESSES** section. We will not consider submissions sent by email or fax or to an address not listed in the addresses section.

If you submit information via *http://www.regulations.gov,* your entire submission—including any personal identifying information—will be posted on the website. If your submission is made via a hardcopy that includes personal identifying information, you may request at the top of your document that we withhold this information from public view. However, we cannot guarantee that we will be able to do so. We will post all hardcopy submissions on *http://www.regulations.gov.*

Information and materials we receive, as well as supporting documentation we used in preparing this proposed rule, will be available for public inspection on *http://www.regulations.gov,* or by appointment, during normal business hours, at the U.S. Fish and Wildlife Service, Sacramento Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT**).

## Background

Section 4(b)(3)(A) of the Endangered Species Act of 1973, as amended (Act) (16 U.S.C. 1531 *et seq.*), requires that we make a finding on whether a petition to list, delist, or reclassify a species presents substantial scientific or commercial information to indicate that the petitioned action may be warranted. We are to base this finding on information provided in the petition, supporting information submitted with the petition, and information otherwise available in our files at the time we make the determination. To the maximum extent practicable, we are to make this finding within 90 days of our receipt of the petition and publish our notice of this finding promptly in the **Federal Register**.

Our standard for substantial information within the Code of Federal Regulations (CFR) with regard to a 90-day petition finding is ''that amount of information that would lead a reasonable person to believe that the measure proposed in the petition may be warranted'' (50 CFR 424.14(b)). If we find that substantial information was presented, we are required to promptly commence a review of the status of the species.

We base this finding on information provided by the petitioner that we determined to be reliable after reviewing sources referenced in the petition and information available in our files at the time of the petition review. We evaluated that information in accordance with 50 CFR 424.14(b). Our process for making this 90-day finding under section 4(b)(3)(A) of the Act and section 424.14(b) of our regulations is limited to a determination of whether the information in the petition meets the ''substantial information'' threshold.

On August 8, 2007, we received a petition from the Bay Institute, Center for Biological Diversity, and Natural Resources Defense Council to list the longfin smelt as endangered within the San Francisco Bay–Delta estuary in California, and to designate critical habitat concurrently with the listing. The petition clearly identified itself as a petition and included the identification information required in 50 CFR 424.14(a). The petition contained detailed information on the natural history and biology of the longfin smelt, and the current status and distribution of the species. It also contained information on what the petitioners reported as potential threats to the species. In response to the petition, we sent a letter to the petitioners dated September 25, 2007, stating that we had secured funding and that we would begin evaluation of the petition on October 1, 2007. We also concluded in our September 25, 2007, letter that emergency listing of the longfin smelt was not warranted at the time, based on the imminence of threats and because we would be working on the finding within the timeframe of routine listing processes.

## Previous Federal Actions

On November 5, 1992, we received a petition from Mr. Gregory A. Thomas of the Natural Heritage Institute to add the Sacramento splittail (*Pogonichthys macrolepidotus*) and longfin smelt to the List of Endangered and Threatened Wildlife and designate critical habitat for each species. On July 6, 1993, we published a 90-day finding in the **Federal Register** that the petition contained substantial information indicating that the requested action may be warranted, and that we would proceed with a status review of both species. On January 4, 1994, we published a notice of a 12-month finding on a petition to list the longfin smelt. We determined that the petitioned action was not warranted, based on the lack of population trend data for estuaries in Oregon and Washington, although the southernmost populations were found to be declining. Furthermore, we found the listing of a Sacramento–San Joaquin River estuary DPS was also not warranted because we determined that the population was not biologically significant to the species as a whole, and did not appear to be sufficiently reproductively isolated.

## Species Information

### *Description and Taxonomy*

The longfin smelt (*Spirinchus thaleichthys*), a member of the true smelt family Osmeridae, can be distinguished from other smelts occurring in California by its weak or absent striations on the operculum (bony plates which supports the gill cover), incomplete lateral line, low number of lateral line scales, and long maxillary bones (McAllister 1963, p. 10; Moyle 2002, pp. 234–235). The pectoral fins often extend as far as the base of the pelvic fins, and the maxillary bones reach underneath the eyes. This fish, which often reaches 6 inches (in) (15 centimeters (cm)) in length, has translucent silver sides and an olive to iridescent pink back.

The longfin smelt is one of three species in its genus; the night smelt (*Spirinchus starksi*) occurs in California, and the shishamo (*S. lanceolatus*)

occurs in northern Japan (McAllister 1963, pp. 10 and 15). Because of its distinctive characteristics, the Delta population of longfin smelt was once described as a species separate from more northern populations (Moyle 2002, p. 235). McAllister (1963, p. 12) merged the two species because differences in characteristics represented a north-south gradient of variation in these characteristics rather than a discrete set; subsequent studies showed that populations from Washington State and the San Francisco Bay–Delta are similar genetically (Stanley et al. 1995, p. 390). However, the San Francisco Bay population is geographically distant from the nearest northern sustainable population and differs in gene frequencies from populations in Washington State (Stanley et al. 1995, p. 390). As presently described, this species' range extends from the San Francisco Bay–Delta, California, to Prince William Sound, Alaska (Moyle 2002, pp. 235–236).

*Habitat and Life History*

The longfin smelt is an anadromous euryhaline species (i.e., tolerant to a wide range of salinities, from freshwater to pure sea water), with a 2-year life cycle (Moyle 2002, p. 236). Spawning occurs in freshwater over sandy-gravel substrate, rocks, or aquatic plants. Spawning may take place as early as November and extend into June, although the peak spawning period is from February to April. Eggs adhere to the bottom substrate, but the larvae inhabit open ocean. Once hatched, the larvae are transported by flows from spawning areas to nursery habitat. The principal nursery habitats for larvae are the productive waters of Suisun and San Pablo Bays, where freshwater outflow and saltwater mixes. Adults are found mainly in Suisun, San Pablo, and San Francisco Bays, although their distribution is shifted upstream in years of low river outflows. Sacramento–San Joaquin River outflow into the bays has been positively correlated with longfin smelt recruitment; the possible mechanism behind this relationship is unclear (Stevens and Miller 1983, p. 432; Kimmerer 2002a, p. 48; Kimmerer 2002b, pp. 1275 and 1283).

*Population Trends*

The petition cites the California Department of Fish and Game (CDFG) Fall Midwater Trawl (FMWT) survey as a measure of longfin smelt abundance. The average abundance index from 1967 to 1986 was 17,616, and 17,485 from 1980 to 1986. However, the petition reports that the average abundance index declined to 537 from 1987 to 1994, possibly as a result of extended drought conditions and increased water exports. During the following 5 years (1995 to 2000), the average abundance index increased to 4,343, and from 2001 to 2006 the average abundance index declined to 569. The petition states the average abundance index from 2001 to 2006 is 87 percent lower than the average abundance index from 1995 to 2000.

*Distinct Population Segment*

We consider a species for listing under the Act if available information indicates such an action might be warranted. ''Species'' is defined in section 3 of the Act to include any subspecies of fish, wildlife, or plant, and any distinct vertebrate population segment of fish or wildlife that interbreeds when mature (16 U.S.C. 1532 (16)). Along with the National Marine Fisheries Service (now the National Oceanic and Atmospheric Administration—Fisheries), we developed the Policy Regarding the Recognition of Distinct Vertebrate Population Segments (DPS Policy) (February 7, 1996; 61 FR 4722) to help determine what constitutes a DPS. The policy identifies three elements that we are to consider in making a DPS determination. These elements include: (1) The discreteness of the population segment in relation to the remainder of the species to which it belongs; (2) the significance of the population segment to the species to which it belongs; and (3) the population segment's conservation status in relation to the Act's standards for listing. If we determine that a population segment meets the discreteness and significance standards, then the level of threat to that population segment is evaluated based on the five listing factors established by the Act to determine whether listing the DPS as either threatened or endangered is warranted.

**Discreteness**

Citing the Services' DPS policy (61 FR 4722), the August 2007 petition asserts that the San Francisco Bay-Delta population of the longfin smelt qualifies as a DPS based on discreteness. The DPS policy states that a population may be considered discrete if it satisfies either one of the following conditions:

(1) It is markedly separated from other populations of the same taxon as a consequence of physical, physiological, ecological, or behavioral factors. Quantitative measures of genetic or morphological discontinuity may provide evidence of this separation.

(2) It is delimited by international governmental boundaries within which differences in control of exploitation, management of habitat, conservation status, or regulatory mechanisms exist that are significant in light of section 4(a)(1)(D) of the Act.

The petitioners claim the San Francisco Bay-Delta population of longfin smelt is discrete based on the first criterion, because there is no evidence that large numbers of longfin smelt migrate between populations within their range in the eastern Pacific or along the California coast. Additionally, they cite survey data indicating longfin smelt populations within several hundred miles of the San Francisco Bay–Delta are small and possibly declining, which leads the petitioners to conclude that it is unlikely that longfin smelt in the San Francisco Bay–Delta are supplemented by immigration from other areas. The petitioners cite Stanley et al. (1995, p. 395), who concluded from gene frequency analysis and reproductive and behavioral analysis that the San Francisco Bay–Delta longfin smelt population and the Humboldt Bay population (the nearest possible reproducing population) differ significantly and that gene flow between the two populations is restricted. Additionally, the petitioners cite Moyle (2002, p. 235) who concluded that the longfin smelt in the San Francisco Bay–Delta are reproductively isolated from other population units.

The Services' DPS policy requires that only one of the discreteness criteria be satisfied in order for a population of a vertebrate species to be considered discrete. After reviewing the information provided in the petition, we believe the petition presents substantial information that the San Francisco Bay–Delta longfin smelt population may be physically isolated from other longfin smelt populations and may be genetically distinct; therefore, we find that there is substantial information indicating the longfin smelt population in the San Francisco Bay–Delta may satisfy the discreteness element of the DPS policy.

**Significance**

If we determine that a population meets the DPS discreteness element, we then consider if it also meets the DPS significance element. The DPS policy (61 FR 4722) states that if a population segment is considered discrete under one or more of the discreteness criteria, its biological and ecological significance will be considered in light of Congressional guidance that the authority to list DPSs be used ''sparingly'' while encouraging the conservation of genetic diversity. In

making this determination, we consider available scientific evidence of the discrete population's importance to the taxon to which it belongs. Since precise circumstances are likely to vary considerably from case to case, the DPS policy does not describe all the classes of information that might be used in determining the biological and ecological importance of a discrete population. However, the DPS policy does provide four possible reasons why a discrete population may be significant. As specified in the DPS policy (61 FR 4722), this consideration of the significance may include, but is not limited to, the following:

(1) Persistence of the discrete population segment in an ecological setting unusual or unique to the taxon;

(2) Evidence that loss of the discrete population segment would result in a significant gap in the range of a taxon;

(3) Evidence that the discrete population segment represents the only surviving natural occurrence of a taxon that may be more abundant elsewhere as an introduced population outside its historic range; or

(4) Evidence that the discrete population segment differs markedly from other populations of the species in its genetic characteristics.

The petitioners claim the San Francisco Bay-Delta population of longfin smelt is significant because: (1) It inhabits an ecological setting unique relative to other longfin smelt populations; (2) it represents the southernmost spawning population of longfin smelt, and loss of this population would result in a significant gap in the range of the species; (3) Stanley et al. (1995, p. 395) found significant differences in gene frequency between populations in Washington State and the San Francisco Bay-Delta, leading them to conclude the San Francisco Bay-Delta population of longfin smelt are genetically distinct; (4) the San Francisco Bay-Delta contains a suite of predators and competitors not found in other populations, and this may have resulted in unique evolutionary characteristics; and (5) it is an indicator of the health of the San Francisco Bay-Delta and important component of the food web.

After reviewing the information provided in the petition, we believe the petition presents substantial information to indicate that the San Francisco Bay-Delta longfin smelt population may be significant. We have made this determination because of (1) The species occurs in a unique ecological setting; (2) the San Francisco Bay-Delta represents the southernmost spawning population for the species, and the loss of the population may result in a significant gap in the range of the species; and (3) the genetic characteristics of the species may be unique from other populations of longfin smelt, and the loss of this population may result in the loss of potential unique adaptive or genetic characteristics of the species. Therefore, we find that there is substantial information indicating the San Francisco Bay-Delta population of longfin smelt may satisfy the significance element of the DPS policy.

**DPS Conclusion**

We have reviewed the information presented in the petition, and have evaluated the information in accordance with 50 CFR 424.14(b). In a 90-day finding, the question is whether a petition presents substantial information that the petitioned action may be warranted. We do not make final determinations regarding DPSs at this stage; rather, we determine whether a petition presents substantial information that a population may be a DPS. Based on our review, we find that the August 2007 petition presents substantial scientific or commercial information to indicate that the San Francisco Bay-Delta population of longfin smelt may be a DPS based on its separation from other populations of longfin smelt, the unique setting in which it occurs, and potential genetic differences between the San Francisco Bay-Delta population and other longfin smelt populations (Stanley et al. 1995, p. 395), which may meet both the discreteness and significance criteria of the DPS policy, and thus may be a listable entity under the Act. To meet the third element of the DPS policy, we evaluate the level of threat to the DPS based on the five listing factors established by the Act. We thus proceeded with an evaluation of information presented in the petition to determine whether there is substantial scientific or commercial information indicating that listing this population may be warranted.

**Factors Affecting the Species**

The petition and supporting information describes a variety of factors affecting the Delta ecosystem that have led to the decline of the San Francisco Bay-Delta population of the longfin smelt. Principal among these factors are the altered hydraulics and reduced outflow of the Delta caused by export of freshwater from the Sacramento and San Joaquin Rivers by the Federal and State water diversions (Factor A). Additional threats to the species include entrainment at other water diversions within the Delta (Factor A); lethal and sub-lethal effects of toxic chemicals (Factor E); direct and indirect impacts of non-native species on the longfin smelt food supply and habitat (Factors A and C); physical disturbance of spawning substrate and the habitat of their prey species from instream activities such as dredging (Factor A); mortality, injury, and disruption of normal behavior caused by pile driving (Factor A); and warming of estuary waters (Factor E). The petition also discussed existing regulatory mechanisms and their perceived inadequacy (Factor D).

**Determination**

The petition and supporting information have identified numerous factors affecting the San Francisco Bay-Delta population of the longfin smelt and the Delta ecosystem, including: Water diversions; entrainment of fish in pumping facilities; toxic chemicals; non-native species competition and predation; disturbance of spawning habitat through dredging or pile driving; and lack of regulatory mechanisms protecting the species and its habitat.

The export of freshwater from the Sacramento and San Joaquin Rivers by the Federal and State water diversions (Factor A) alters the hydraulics and saline conditions of the Delta estuary and reduces outflow through San Francisco Bay, thereby affecting the habitat conditions the species requires. Entrainment at water diversion facilities within the Delta (Factor A) may lead to direct loss of the species. The effects of toxic chemicals (Factor E) within the San Francisco Bay-Delta may be a factor influencing habitat availability and quality, reproduction success, and food availability for the species. Non-native fish species may be causing higher levels of predation of the species (Factors A and C) and affecting the species' food supply. Habitat disturbance of longfin spawning substrate and the habitat of their prey species caused by instream activities such as dredging and pile driving (Factor A) may be a factor affecting the species. The warming of estuary waters (Factor E) may be affecting the species by altering habitat condition for spawning and influencing water supply conditions for the species. The petition also discussed existing regulatory mechanisms and their perceived inadequacy (Factor D). The effects of all these factors may be causing the San Francisco Bay-Delta population of the longfin smelt to decline. According to recent fish survey information collected by CDFG, the average catch from 2001 to 2006 was 84 to 87 percent lower than

the average catch from 1995 to 2000 (CDFG 2008, pp.1–4).

Our process for making this 90-day finding under section 4(b)(3)(A) of the Act and 50 CFR 424.14(b) of our regulations is limited to the determination of whether information meets the ''substantial scientific and commercial information'' threshold, which is interpreted in our regulations as ''that amount of information that would lead a reasonable person to believe that the measure proposed in the petition may be warranted'' (50 CFR 424.14). On the basis of information provided in the petition and other information readily available to us, we have determined that the petition presents substantial scientific or commercial information that the San Francisco Bay-Delta longfin smelt population may be a distinct population segment and that listing the San Francisco Bay-Delta longfin smelt population as endangered may be warranted. Therefore, we are initiating a status review to determine if listing the species is warranted. To ensure that the status review is comprehensive, we are soliciting scientific and commercial data and other information regarding this species.

It is important to note that the ''substantial information'' standard for a 90-day finding is in contrast to the Act's ''best scientific and commercial data'' standard that applies to a 12-month finding as to whether a petitioned action is warranted. A 90-day finding is not a status assessment of the species and does not constitute a status review under the Act. Our final determination as to whether a petitioned action is warranted is not made until we have completed a thorough status review of the species, which is conducted following a 90-day finding. Because the Act's standards for 90-day and 12-month findings are different, as described above, a positive 90-day finding does not mean that the 12-month finding will also be positive.

The petitioners also requested that critical habitat be designated for this species. We always consider the need for critical habitat designation when listing species. If we determine in our 12-month finding that listing the longfin smelt is warranted, we will address the designation of critical habitat in a subsequent proposed rule.

### Significant Portion of the Species' Range

The Petitioner seeks to list the entire San Francisco Bay-Delta longfin smelt population. During our status review we will evaluate whether the information provided and in our files supports listing and whether there may be a portion of the longfin smelt's range that may be significant. As a result we will leave our analysis and determination of issues of significant portion of range to the 12-month finding.

### References Cited

A complete list of all references cited herein is available, upon request, from the Sacramento Fish and Wildlife Office (see **ADDRESSES** section).

### Author

The primary authors of this notice are staff of the Sacramento Fish and Wildlife Office, U.S. Fish and Wildlife Service, 2800 Cottage Way, Sacramento, CA 95825.

### Authority

The authority for this action is the Endangered Species Act of 1973 as amended (16 U.S.C. 1531 *et seq.*).

Dated: April 28, 2008.

**Kenneth Stansell,**

*Acting Director, U.S. Fish and Wildlife Service.*

[FR Doc. E8–9835 Filed 5–5–08; 8:45 am]

BILLING CODE 4310–55–P

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## DEPARTMENT OF THE INTERIOR

## Fish and Wildlife Service

## 50 CFR Part 17

**[FWS–R1–ES–2008–0048; 1111 FY07 MO B2]**

## Endangered and Threatened Wildlife and Plants; 90-Day Finding on a Petition to List Kokanee (Oncorhynchus nerka) in Lake Sammamish, Washington, as Threatened or Endangered

**AGENCY:** Fish and Wildlife Service, Interior.

**ACTION:** Notice of 90-day petition finding and initiation of status review.

**SUMMARY:** We, the U.S. Fish and Wildlife Service (Service), announce a 90-day finding on a petition to list the Lake Sammamish kokanee (*Oncorhynchus nerka*) as a threatened or endangered species under the Endangered Species Act of 1973, as amended (Act). We find that the petition presents substantial scientific or commercial information indicating that listing the Lake Sammamish kokanee may be warranted. Therefore, with the publication of this notice, we are initiating a status review of the species, and we will issue a 12-month finding on our determination as to whether the petitioned action is warranted. To ensure that the status review is comprehensive, we are soliciting information and data regarding this species. We will make a determination on critical habitat for this species if, and when, we initiate a listing action.

**DATES:** We made the finding announced in this document on May 6, 2008. We will accept comments received or postmarked on or before July 7, 2008.

**ADDRESSES:** You may submit comments by one of the following methods:

- *Federal eRulemaking Portal: http://www.regulations.gov*. Follow the instructions for submitting comments.
- *U.S. mail or hand-delivery:* Public Comments Processing, Attn: [FWS–R1–ES–2008–0048]; Division of Policy and Directives Management; U.S. Fish and Wildlife Service; 4401 N. Fairfax Drive, Suite 222; Arlington, VA 22203.

We will not accept e-mail or faxes. We will post all information received at *http://www.regulations.gov*. This generally means that we will post any personal information you provide us (see the Information Solicited section below for more details).

**FOR FURTHER INFORMATION CONTACT:** Ken Berg, Manager, Western Washington Fish and Wildlife Office, U.S. Fish and Wildlife Service, 510 Desmond Drive SE, Suite 102, Lacey, WA 98503; telephone 360–753–6039; facsimile at 360–753–9405. If you use a telecommunications device for the deaf (TDD), call the Federal Information Relay Service (FIRS) at 800–877–8339.

**SUPPLEMENTARY INFORMATION:**

### Information Solicited

When we make a finding that a petition presents substantial information to indicate that listing a species may be warranted, we are required to promptly commence a review of the status of the species. To ensure that the status review is complete and based on the best available scientific and commercial information, we are soliciting information concerning the status of the Lake Sammamish kokanee. We are seeking information regarding the species' historical and current status and distribution, its biology and ecology, ongoing conservation measures for the species and its habitat, and threats to the species and its habitat. We request any additional information, comments, and suggestions from the public, other concerned governmental agencies, Native American Tribes, the scientific community, industry, agricultural and forestry groups, conservation groups, or any other interested parties concerning the status of the Lake Sammamish kokanee.

If we determine that listing the Lake Sammamish kokanee is warranted, it is our intent to propose critical habitat to the maximum extent prudent and determinable at the time we propose to list the species. Therefore, with regard to areas within the geographical area currently occupied by the species, we also request data and information on what may constitute physical or biological features essential to the conservation of the species, where these features are currently found, and whether any of these features may require special management considerations or protection. Please provide specific comments and information as to what, if any, critical habitat you think we should propose for designation if the species is proposed for listing, and why such habitat meets the requirements of the Act.

Please note that submissions merely stating support or opposition to the actions under consideration without providing supporting information, although noted, will not be considered in making a determination, as section 4(b)(1)(A) of the Act directs that determination as to whether any species is a threatened or endangered species shall be made ''solely on the basis of the best scientific and commercial data available.'' Based on the status review, we will issue the 12-month finding on the petition, as provided in section 4(b)(3)(B) of the Act.

You may submit your information concerning this status review by one of the methods listed in the **ADDRESSES** section. We will not consider submissions sent by e-mail or fax or to an address not listed in the **ADDRESSES** section.

If you submit information via *http://www.regulations.gov*, your entire submission—including any personal identifying information—will be posted on the Web site. If your submission is made via a hardcopy that includes personal identifying information, you may request at the top of your document that we withhold this personal identifying information from public review. However, we cannot guarantee that we will be able to do so. We will post all hardcopy submissions on *http://www.regulations.gov*.

Information and materials we receive will be available for public inspection on *http://www.regulations.gov*, or by appointment, during normal business hours, at the U.S. Fish and Wildlife Service, Oregon Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT** section).

**Background**

Section 4(b)(3)(A) of the Endangered Species Act of 1973, as amended (Act) (16 U.S.C. 1531 *et seq.*) requires that we make a finding on whether a petition to list, delist, or reclassify a species presents substantial scientific or commercial information indicating that the petitioned action may be warranted. We are to base this finding on information provided in the petition, supporting information submitted with the petition, and information otherwise available in our files at the time we make the determination. To the maximum extent practicable, we are to make the finding within 90 days of our receipt of the petition and publish our notice of this finding promptly in the **Federal Register**.

Our standard for ''substantial information,'' as defined in the Code of Federal Regulations at 50 CFR 424.14(b), with regard to a 90-day petition finding is ''that amount of information that would lead a reasonable person to believe that the measure proposed in the petition may be warranted.'' If we find that substantial information was presented, we are required to promptly commence a status review of the species. We base this finding on information provided by the petitioner that we determined to be reliable after reviewing sources referenced in the petition and available in our files. We evaluated that information in accordance with 50 CFR 424.14(b). Our process for making this 90-day finding under section 4(b)(3)(A) of the Act is limited to a determination of whether the information in the petition meets the ''substantial information'' threshold.

It is important to note that the ''substantial information'' standard for a 90-day finding is in contrast to the Act's ''best scientific and commercial data'' standard that applies to a 12-month finding as to whether a petitioned action is warranted. A 90-day finding is not a status assessment of the species and does not constitute a status review under the Act. Our final determination as to whether a petitioned action is warranted is not made until we have completed a thorough status review of the species, which is conducted following a positive 90-day finding. Because the Act's standards for 90-day and 12-month finding are different, as described above, a positive 90-day finding does not mean that the 12-month finding will also be positive.

On July 9, 2007, we received a formal petition from Trout Unlimited; the City of Issaquah, Washington; King County, Washington; People for Puget Sound; Save Lake Sammamish; the Snoqualmie Tribe; and the Wild Fish Conservancy, requesting that we list all wild, indigenous, naturally-spawned kokanee (*Oncorhynchus nerka*) in Lake Sammamish, Washington, as a threatened or endangered species under the Endangered Species Act, because of their declining numbers, reduced productivity, a decline in the quantity and quality of their habitat, and narrowing temporal, spatial, and genetic diversity. The petition clearly identified itself as a petition and included the requisite identification information for the petitioners, as required in 50 CFR 424.14(a). The petition contained information on kokanee biology and distribution. The petition also contained information that may indicate the uniqueness of Lake Sammamish kokanee: The discreteness and significance of this population; population viability, abundance, and productivity; distribution; and genetic diversity. Potential threats discussed in the petition include the present and ongoing destruction, modification, and curtailment of habitat; the lack of effective regulatory measures; and other natural or manmade factors affecting the species' continued existence.

On September 24, 2007, we notified the petitioners that our initial review of the petition for Lake Sammamish kokanee concluded that an emergency listing was not warranted, and that we anticipated making an initial finding within 90 days as to whether the petition contains substantial information indicating that the action may be warranted. This finding addresses the petition.

**Species Information**

The kokanee and the sockeye salmon are two forms of the same species, *Oncorhynchus nerka* (Order Salmoniformes, Family Salmonidae), that are native to watersheds in the north Pacific from southern Kamchatka to Japan in the western Pacific, and from Alaska to the Columbia River in North America (Page and Burr 1991, p. 52; Taylor *et al.* 1996, pp. 402–403). Adult kokanee resemble sockeye salmon, but are generally smaller in size at maturity because they are confined to freshwater environments, which are less productive than the ocean (Gustafson *et al.* 1997, p. 29). Both kokanee and anadromous sockeye turn from silver to bright red during maturation, while the head is olive green and the fins are blackish red (Craig and Foote 2001, p. 381). Typically, resident sockeye (progeny of anadromous sockeye that do not migrate to sea) turn from silver to green (Foote *et al.* 2004, p. 70).

Sockeye salmon are anadromous, migrating to the Pacific Ocean following hatching and rearing in fresh water. They spend 2 to 3 years in marine waters before returning to freshwater environments to spawn. Kokanee are non-anadromous, spending their entire lives in freshwater habitats (Meehan and Bjorn 1991, pp. 56–57). Kokanee young are spawned in freshwater streams and subsequently migrate to a nursery lake (Burgner 1991, pp. 35–37), where they remain until maturity. When mature, they return to natal freshwater streams to spawn and die, typically around age four.

Taylor *et al.* (1996, pp. 411–414) found multiple episodes of independent divergence between sockeye and kokanee throughout their current range. As ancestral sockeye populations expanded to new river systems, those that could not access the marine environment on a regular basis evolved into the non-anadromous kokanee form. This rapid adaptive evolution occurred multiple times, resulting in native kokanee populations being genetically more similar to their sympatric (occupying the same geographic area without interbreeding) sockeye populations than kokanee in other river systems (Taylor *et al.* 1996, pp. 401, 413–414).

Kokanee have been widely introduced in North America in areas outside their larger geographic distribution, and further inland in States and provinces where they occur naturally (*e.g.*, Maine, California, Montana, Colorado, Connecticut, New York, Pennsylvania, Vermont, North Dakota, Nevada, Utah, Wyoming, Alberta, Saskatchewan, Manitoba, Ontario) (Scott and Crossman 1973, p. 167). Native populations of kokanee are likely present over most of the range of sockeye salmon. The Lake Washington-Sammamish watershed is one of five watersheds in Washington that support native populations of resident kokanee (Pfeifer 1995 in Jackson 2006, p. 1). In western Washington, native populations of kokanee occur in Lake Whatcom (Lake Washington watershed), Lake Washington-Lake Sammamish watershed, and Baker Lake (Baker River watershed) (Jackson 2006, p. 1). It is thought that the Baker Lake kokanee population became established after the native sockeye population spawning migration was affected by the construction of Lower Baker Dam and the creation of Lake Shannon, followed by the construction of Upper Baker Dam (FERC and USACOE 2006, p. 100). Therefore, these individuals are most likely ''residual'' sockeye and not true kokanee. Native kokanee populations may exist in Ozette Lake, Lake Pleasant (Quillayute River watershed), and Quinault Lake (Quinault River watershed); however there is uncertainty regarding the origin of these stocks (Gustafson *et al.* 1997, pp. 120–123).

Kokanee historically spawned in tributaries located throughout Lake Washington; however, their current spawning distribution in the Lake Washington Basin appears to be limited to the Sammamish River/Lake Sammamish drainages, and Cedar River (Walsh Lake) drainages (Gustafson *et al.* 1997, p. 123; Berge and Higgins 2003, p. 3). Surface water discharge from Lake Sammamish is through the Sammamish River at the north end of the lake, which ultimately flows into Lake Washington. The major tributary to Lake Sammamish is Issaquah Creek, which enters at the south end of the lake and contributes approximately 70 percent of the inflow to the lake (Kerwin 2001, p. 425). There are also several smaller tributaries used for spawning by native kokanee, including Ebright Creek, Pine Lake Creek, Laughing Jacobs Creek, and Lewis Creek (Berge and Higgins 2003, p. 5). The four major tributaries that discharge into the Sammamish River are Swamp Creek, North Creek, Little Bear Creek, and Big Bear Creek.

Although unconfirmed, it is likely that the kokanee that currently spawn in the Sammamish River and its major tributaries rear in Lake Washington, since if they were to rear in Lake Sammamish, the fry would have to migrate upstream to reach the lake. Individuals of what appear to be resident *O. nerka* (sockeye that originate from at least one sea-going parent but spend their entire life in fresh water) are still occasionally collected in Lake Washington (Berge and Higgins 2003, pp. 3–4). The origin of kokanee in Walsh Lake in the southern part of the Lake Washington Basin is uncertain given that they were first documented in 1997, and were not previously observed in surveys conducted by the University of Washington in 1977 (Connor *et al.* 2000, p. 22). More recent genetic analysis of the Walsh Lake population suggests that this population is introduced, since it genetically more closely resembles sockeye from the Baker Lake system in the Skagit River watershed than native *O. nerka* stocks within the basin (Berge and Higgins 2003).

Kokanee in the Sammamish River/Lake Sammamish watershed (referred to by the petitioners as the Lake Sammamish population) are separated into three groups: (1) Summer/early-run, (2) fall/middle-run, and (3) winter/late-run, based on spawn timing and location (Berge and Higgins 2003, p. 3; Young *et al.* 2004, p. 66). Summer/early-run kokanee spawn during late summer (August through September) in Issaquah Creek, and are the only run of kokanee known to spawn in that creek, although introduced sockeye salmon spawn there in October. Fall/middle-run kokanee spawn in late September through November, primarily in larger Sammamish River tributaries, including Swamp Creek, North Creek, Bear Creek, Little Bear Creek, and Cottage Lake Creek (Trout Unlimited 2007, p. 9). Winter/late-run kokanee spawn from late fall into winter (October through January) in tributaries of Lake Sammamish, including Lewis Creek, Ebright Creek, and Laughing Jacobs Creek, with some spawners recorded in Vasa Creek, Pine Lake, Sammamish River, and East Fork Issaquah Creek (Trout Unlimited *et al.* 2007, p. 9).

Berggren (1974, p. 9) and Pfeifer (1995, pp. 8–9 and 21–22) report escapements (the number of fish arriving at a natal stream or river to spawn) of summer/early-run Issaquah Creek kokanee numbering in the thousands during the 1970s, but since 1980, the escapement of early-run kokanee in Issaquah Creek has ''plummeted dramatically'' (Berge and Higgins 2003, p. 18). Between 1998 and 2001, only three summer/early-run kokanee redds (gravel nests of fish eggs) were observed in Issaquah Creek. In July 2001 and 2002, the Washington Department of Fish and Wildlife installed a fish weir across Issaquah Creek in an attempt to capture all migrating summer/early-run kokanee and spawn them in a hatchery for a supplementation program. However, no kokanee were observed or captured during either of those two years (WDFW 2002, pp. 5–7), nor were kokanee observed during spawner surveys conducted in 2003 (Washington Trout 2004, p. 2), leading biologists to conclude that the summer/early-run is functionally extinct (Berge and Higgins 2003, p. 33; Jackson 2006, p. 1).

The fall/middle-run kokanee was estimated to have at least 6,000 and as many as 30,000 spawners in the 1940s in Big Bear Creek, a tributary to the Sammamish River (Connor *et al.* 2000, pp. 13–14), although these numbers are confounded by the high numbers of out-of-basin and in-basin kokanee introductions during this time period (Gustafson *et al.* 1997, p. 113). However, by the 1970s the fall/middle-run was considered extinct by Washington Department of Game biologists (Connor *et al.* 2000, p. 15).

The winter/late-run kokanee have had highly variable spawner returns over the past 11 years (1996–2006), with returns as high as 4,702 in 2003, and as low as 64 in 1997 (Trout Unlimited *et al.* 2007, p. 18). Annual returns averaged 946 fish, with a median return of 594 fish during this period (Trout Unlimited *et al.* 2007, p. 16). During a 3-year period from 2004 to 2006, the average spawner return was 568 fish, although in two of the four spawning streams currently used by the winter/late-run (Laughing Jacobs Creek and Pine Lake Creek), there were fewer than 70 fish counted annually in each stream (Trout Unlimited *et al.* 2007, p. 18). The longest accessible spawning stream for the winter/late-run is 0.75 mile (mi) (1.2 kilometers (km)), and the total spawning area of the core spawning streams (Lewis Creek, Laughing Jacobs Creek, and Ebright Creek) is less than 1.0 mile (1.6 km) (Jackson 2006, p. 4).

Because of the complicated relationships between sockeye and kokanee populations, we will continue to work with National Oceanic and Atmospheric Administration-Fisheries regarding species or life forms under the jurisdiction of each agency.

*Distinct Vertebrate Population Segments*

We consider a species for listing under the Act if available information indicates such an action might be warranted. ''Species'' is defined in section 3 of the Act to include any subspecies of fish or wildlife or plants, and any distinct population segment of any species of vertebrate fish or wildlife that interbreeds when mature (16 U.S.C. 1532 (16)). We, along with the National Marine Fisheries Service (now the National Oceanic and Atmospheric Administration-Fisheries), developed the Policy Regarding the Recognition of Distinct Vertebrate Population Segments (DPS Policy) (February 7, 1996; 61 FR 4722) to help us in determining what constitutes a distinct vertebrate population segment (DPS). The policy identifies three elements that we are to consider in making a DPS determination. These elements include: (1) The discreteness of the population segment in relation to the remainder of the species to which it belongs; (2) the significance of the population segment to the species to which it belongs; and (3) the population segment's conservation status in relation to the Act's standards for listing. If we determine that a population segment meets the discreteness and significance standards, then the level of threat to that population segment is evaluated based on the five listing factors established by the Act to determine whether listing the DPS as either threatened or endangered is warranted.

The petition asserts that the native summer/early-run and fall/middle-run kokanee are considered functionally extinct, and that the native winter/late-run represents the last remaining population in Lake Sammamish (Trout Unlimited *et al.* 2007, p. 17). However, the native summer/early-run and fall/middle-run of kokanee were included in the petitioned action because there may be remnants of those populations, which are critically important to the recovery of Lake Sammamish kokanee (Trout Unlimited *et al.* 2007, p. 10).

The petition discusses each of the three elements listed above. Following is our evaluation of whether the petition presents substantial information that the petitioned entity, the Lake Sammamish kokanee, may be a DPS.

*Discreteness*

*Discreteness refers to the separation of a population segment from other members of the taxon based on either:* (1) Physical, physiological, ecological, or behavioral factors; or (2) international boundaries within which significant differences in control of exploitation, habitat management, conservation status, or regulatory mechanisms exist in light of section 4(a)(1)(D) of the Act.

Data contained in the petition, referenced in the petition, and otherwise available in our files suggest that Lake Sammamish population may be genetically and ecologically discrete from other populations of kokanee. Kokanee in the Lake Sammamish system appear to be reproductively isolated from other kokanee and sockeye populations (Young *et al.* 2004, pp. 72–73), and ecologically unique in that three run-timings have historically been exhibited by this population (Berge and Higgins 2003, pp. 3–7), although only the winter/late run-timing appears to remain expressed. The petitioners assert that not only are Lake Sammamish kokanee significantly different genetically from other kokanee populations, they are uniquely adapted to this system, given that introductions of wild and artificially produced kokanee from other watersheds were unable to persist in the Lake Sammamish system (Trout Unlimited *et al.* 2007, p. 14). The petition also states that each of the three run-timings exhibit different average fish lengths that correspond to their unique ecological settings and life histories. Based on the physical and behavioral factors identified in the petition, we find that there is substantial information indicating that Lake Sammamish kokanee may meet the discreteness element of our DPS policy.

*Significance*

If we determine that a population meets the DPS discreteness element, we then consider whether it also meets the DPS significance element. The DPS policy (61 FR 4722) states that if a population segment is considered discrete under one or more of the discreteness criteria, its biological and ecological significance will be considered in light of Congressional guidance that the authority to list DPSs be used ''sparingly'' while encouraging the conservation of genetic diversity. In making this determination, we consider available scientific evidence of the discrete population's importance to the taxon to which it belongs. Since precise circumstances are likely to vary considerably from case to case, the DPS policy does not describe all the classes of information that might be used in determining the biological and ecological importance of a discrete population. However, the DPS policy does provide four possible reasons why a discrete population may be significant. As specified in the DPS policy (61 FR 4722), this consideration of the significance may include, but is not limited to, the following:

(1) Persistence of the discrete population segment in a unique or unusual ecological setting;

(2) Evidence that loss of the discrete segment would result in a significant gap in the range of the taxon;

(3) Evidence that the discrete population segment represents the only surviving natural occurrence of the taxon that may be more abundant elsewhere as an introduced population outside of its historic range; or

(4) Evidence that the discrete population segment differs markedly from other populations of the species in its genetic characteristics (USFWS 1996).

The petitioners assert that the Lake Sammamish population is significant because it is native to the Sammamish Basin and genetically unique among native kokanee and sockeye populations in the western United States. They point to several studies demonstrating that this population is genetically distinguishable from a number of other kokanee and sockeye populations across the west. The petition states that: (1) Genetic data highlights the unique genetic structure of the runs relative to other kokanee and sockeye across the west; (2) a genetic difference exists within the kokanee in Lake Sammamish; and (3) artificially-produced kokanee from other

watersheds were unable to persist in Lake Sammamish, as evident by the lack of a genetic signal from those introduced populations (Trout Unlimited *et al.* 2007, p. 14).

Information provided by the petitioners, in combination with information available in our files, indicates that this population may occur in a unique or unusual ecological setting, which suggests that the loss of Lake Sammamish kokanee may result in a significant gap in the natural range of the taxon. The petition states that the presence of three distinct kokanee populations separated both by run timing and distribution within the basin is a reflection of the unique ecosystems in the different regions of the basin and the kokanee's natural selection within those ecosystems (Trout Unlimited *et al.* 2007, p. 19). Therefore, information presented in the petition, in combination with information available in our files suggests that the Lake Sammamish kokanee may meet the significance criteria of our DPS policy.

**DPS Conclusion**

We have reviewed the information presented in the petition, and have evaluated the information in accordance with 50 CFR 424.14(b). In a 90-day finding, the question is whether a petition presents substantial information that the petitioned action may be warranted. We do not make final determinations regarding DPSs at this stage; rather, we determine whether a petition presents substantial information that a population may be a DPS. Based on our review, we find that the July 9, 2007, petition does present substantial scientific or commercial information to indicate that the Lake Sammamish kokanee population may be a DPS based on genetic and ecological discreteness from other populations and representation of a significant gap in the natural range of the taxon. Therefore, the Lake Sammamish kokanee population may be a listable entity under the Act.

To meet the third element of the DPS policy, we evaluate the level of threat to the DPS based on the five listing factors established by the Act. We thus proceeded with an evaluation of information presented in the petition, as well as information in our files, to determine whether there is substantial scientific or commercial information indicating that listing of the Lake Sammamish kokanee population may be warranted. Our threats analysis and conclusion follow.

**Threats Analysis**

Section 4 of the Act (16 U.S.C. 1533), and its implementing regulations at 50 CFR 424, set forth the procedures for adding species to the Federal Lists of Endangered and Threatened Wildlife and Plants. A species may be determined to be an endangered or threatened species due to one or more of the five factors described in section 4(a)(1) of the Act: (A) Present or threatened destruction, modification, or curtailment of habitat or range; (B) Overutilization for commercial, recreational, scientific, or educational purposes; (C) Disease or predation; (D) Inadequacy of existing regulatory mechanisms; or (E) Other natural or manmade factors affecting its continued existence. In making this finding, we evaluated whether information on threats to Lake Sammamish kokanee presented in the petition and other information available in our files at the time of the petition review reasonably indicate that listing the species may be warranted. Our evaluation of this information is presented below.

*A. Present or Threatened Destruction, Modification, or Curtailment of the Species' Habitat or Range*

The petitioners state that present or threatened destruction, modification, or curtailment of the habitat or range of the Lake Sammamish kokanee threatens this population such that listing may be warranted. The petition describes significant alterations that have occurred to the Lake Sammamish watershed, including: (1) The loss or degradation of available kokanee habitat resulting from the channelization of the Sammamish River for flood control; (2) the degradation of stream and lake water quality resulting from past point-source pollution and ongoing urbanization; (3) the alteration of stream hydrology due to increasing urbanization; and (4) the elimination of access to upstream habitats by kokanee because of manmade fish passage barriers (Trout Unlimited *et al.* 2007, pp. 22–25). Each of these potential threats are discussed below.

(1) The petition describes how the channelization of the Sammamish River for flood control resulted in the significant and continuing degradation of the available habitat for kokanee within the Sammamish River (Trout Unlimited *et al.* 2007, p. 22), and states that alteration of the channel and banks has resulted in significant sedimentation and flood scour. The petition states that lake stratification during summer likely affects the distribution and survival of kokanee because of temperature and pollutants (Trout Unlimited *et al.* 2007, p. 19). Information in our files indicates that the Sammamish River system has been highly altered, and converted from a meandering 28-mile (45-km) river into a 14-mile (22.5-km) narrow, steep-sided, and largely straight channel (Kerwin 2001, p. 28). The deepening of the channel and hardening of stream banks has significantly decreased its connectivity to the floodplain, reduced off-channel and side-channel habitats, and disconnected most of the smaller streams from the river, resulting in a loss of salmonid refugia and foraging habitat (Kerwin 2001, p. 392). Kerwin (2001, pp. 425–449) documented losses of stream channel and lake shore complexity and connectivity caused by bank hardening, riparian removal, and residential encroachment within Lake Sammamish and its tributaries. Jackson (2006, p. 4) states that as a result of decreased stream channel complexity, periodic flood events are now directed through the modified stream channels of Lake Sammamish tributaries, rather than dissipating over their floodplains, creating significant scour in the channels during the period when winter/late-run kokanee are staging to spawn or are spawning.

(2) The petition describes the degradation of water quality in Lake Sammamish from effluent discharges into Issaquah Creek (the largest tributary to Lake Sammamish) in the 1960s by a wastewater treatment plant, milk processing plant, fish hatchery, and mining operations (Trout Unlimited *et al.* 2007, pp. 22–23). The petitioners describe ongoing water quality impacts to Lake Sammamish and its tributaries from non-point source pollutants related to increased urbanization and highway runoff. They also state that water withdrawals in conjunction with urbanization have altered stream flows during the dry season, and that land use activities in King County, Washington, have resulted in increased stream temperatures and reduced dissolved oxygen levels (Trout Unlimited *et al.* 2007, p. 25). Information in our files indicates poor water quality related to urbanization has been identified as a habitat limiting factor for salmonids in Lake Sammamish and a number of its tributaries (Kerwin 2001, pp. 423–445).

(3) The petition describes the alteration of hydrology in kokanee spawning streams due to an increase in the percentage of impervious surfaces (*e.g.*, sidewalks, roads, parking lots, roof tops), as a result of urbanization (Trout Unlimited *et al.* 2007, p. 23). The petitioners describe how increased stormwater runoff during the rainy

season has increased pollutants and led to more intensive flash flood events, which scour stream channels, erode stream banks, cause turbidity in spawning tributaries, and contribute significant sediment pulses into Lake Sammamish. Water withdrawals in conjunction with land cover changes associated with urbanization have reduced summer base flows in the system and may prevent upstream migration of summer/early-run kokanee. However, low base flows are unlikely to impede the return of fall and winter-run kokanee adults due to their later migration timing. Information in our files indicates that urbanization and the conversion of the landscape from a forested watershed to one dominated by impervious surfaces has long been known to harm aquatic systems, principally through hydrologic changes (Booth *et al.* 2002, pp. 835–836). Modifications of the land surface through urbanization results in dramatic changes in stream flow patterns, significantly degrading instream habitats for fish and other aquatic biota. Kerwin (2001, pp. 438, 446) noted that impervious surface areas within the watersheds of two of the four major spawning tributaries for winter/late-run kokanee currently exceed 20 percent (Lewis Creek subbasin), or are projected to exceed 20 percent (Laughing Jacobs subbasin) under expected development levels, which is double the percentage determined to have demonstrable degradation to stream channels in this region (Booth *et al.* 2002, p. 842). Booth *et al.* (2002, p. 838) state that ''imperviousness,'' although an imperfect measure of human influence, is clearly associated with stream-system decline.

(4) The petition describes how past and present manmade fish passage barriers have prevented kokanee from accessing upstream tributary habitats. It states that the Interstate-90 culvert restricts winter/late-run kokanee to 0.75 mile (1.2 km) of spawning habitat on Lewis Creek (Trout Unlimited *et al.* 2007, p. 25), and that remnants of a weir constructed by property owners on Ebright Creek may have continued to block upstream passage for winter/late-run kokanee a number of years after its removal. The petitioners also claim that the State of Washington Issaquah Creek Hatchery blocks 32 miles (51.5 km) of potential summer/early-run kokanee spawning habitat on Issaquah Creek (Trout Unlimited *et al.* 2007, p. 25). Information in our files shows that winter/late-run kokanee that spawn in Lewis, Laughing Jacobs, and Ebright creeks only have access to less than one mile of stream. Most notable of the three tributaries is Lewis Creek, where kokanee have access to 0.75 mile (1.2 km) of stream (the longest of the three spawning tributaries) until they reach the Interstate-90 culvert that blocks passage to approximately 0.49 acres (0.2 hectares) of spawning habitat (Jackson 2006, p. 4). Winter/late-run kokanee were able to access Ebright Creek at least into the 1930s (Connor *et al.* 2000, p. 11), although passage was blocked by the construction of a barrier by property owners for an undetermined period of time prior to 1973. Conner *et al.* (2000, p. 28) noted that after this barrier was removed in 1973, Ebright Creek may have once again been blocked in the late 1980s by the remnants of an old fish weir and the roots of a cottonwood tree. There is no information in either the petition or our files that indicates kokanee passage into Ebright Creek remained blocked after the 1980s. The Washington Department of Game identified the Issaquah Creek Hatchery weir as a major factor in the decline of kokanee in this stream (Pfeifer 1982, as cited in Connor *et al.* 2000, p. 29).

**Summary of Factor A**

The petition identifies numerous potential factors that may be affecting the Lake Sammamish kokanee, including: (1) The loss of stream channel and lake shore complexity and connectivity; (2) the degradation of stream and lake water quality; (3) the alteration of stream hydrology; and (4) the elimination of access to upstream habitats. Information in our files also indicates these factors may be affecting the population. We therefore conclude that the petition presents substantial information to indicate that the present or threatened destruction or modification of habitat or range may present a threat to Lake Sammamish kokanee.

*B. Overutilization for Commercial, Recreational, Scientific or Educational Purposes*

The petitioners claim that past kokanee egg collections in the Lake Sammamish system for transport outside the system had significant impact on abundance and productivity of the kokanee population (Trout Unlimited *et al.* 2007, p. 20). Information in our files indicates that although kokanee egg collections took place within both the Lake Washington and Lake Sammamish watersheds, the eggs collected were largely used for hatchery supplementation of the natural production of various stream systems within these basins (Pfeifer 1992, pp. 9, 68–69). The removal of as many as 14 million eggs from the Bear Creek (fall/middle-run) kokanee population in the 1940s (Berge and Higgins 2003, p. 6) may have contributed significantly to the eventual loss of this segment of the population. However, since 1979, Lake Washington and Lake Sammamish have been managed for wild kokanee production, and there have been no introductions of hatchery broodstocks or nonnative stocks to these systems (Pfeifer 1992, p. 9).

The petitioners provided little information on the impact of recreational fisheries to Lake Sammamish kokanee. However, they do state that kokanee were an important sport fish in the past. Information in our files indicates sport fishing may have contributed to initial declines in the population, although there currently is no intentional fishery for kokanee in Lake Sammamish, and a harvest ban has been in place since 1986 (Pfeifer 1995, p. 12). Nevertheless, some kokanee (albeit in low numbers and of unknown stock) are harvested illegally (Pfeifer 1995, p. 33), and incidental catch of kokanee through other fisheries may occur (Coyle *et al.* 2001, p. 22).

**Summary of Factor B**

The petition identifies egg collections and sport fishing as potential factors affecting Lake Sammamish kokanee. Although information in the petition indicates that overutilization for commercial, recreational, scientific or educational purposes likely contributed to the population's initial decline, information in our files suggests this is no longer a threat to the Lake Sammamish kokanee. Therefore, we find that the petition does not present substantial information indicating that the overutilization for commercial, recreational, scientific or educational purposes may present a threat to Lake Sammamish kokanee.

*C. Disease or Predation*

Neither the petition nor information in our files presents information that would indicate that disease is a current threat to Lake Sammamish kokanee, and the effect of disease on the Lake Sammamish kokanee population is largely unknown (Connor *et al.* 2000, p. 30).

The petition asserts that lake stratification during summer likely affects the distribution and survival of kokanee either directly because of temperature and pollutants (as described in Factor A), or indirectly through the movement and distribution of its zooplankton food sources and its predators (Trout Unlimited *et al.* 2007, p. 19). It also states that nonnative fish

species (*e.g.*, black bass (*Micropterus* spp.), yellow perch (*Perca flavescens*)) and native fish species (*e.g.*, northern pikeminnow (*Ptychocheilus oregonensis*), coastal cutthroat trout (*O. clarkii clarkii*)) prey on young kokanee in Lake Sammamish (Trout Unlimited *et al.* 2007, p. 22) (see also Factor E discussion). The petition also states that permanent habitat alteration in the Sammamish River has removed areas previously used by kokanee as refugia from predators (Trout Unlimited *et al.* 2007, p. 22). Information in our files indicates that predation has been identified as a potential threat to kokanee (Pfeifer 1995, p. 16–17; Connor *et al.* 2000, p. 30; Coyle *et al.* 2001, p. 23). However, the petition did not provide information on the rates of predation, and no information is available in our files with which to assess this potential threat. Pfeifer (1995, p. 16) states that predation in Lake Sammamish is certainly likely, but whether it has increased over historic levels is uncertain, since appropriate sampling has not occurred. There is, however, anecdotal evidence indicating coastal cutthroat populations in the Lake Washington basin have increased in abundance since the 1970s (Nowak *et al.* 2004, p. 625).

**Summary of Factor C**

No information on disease was presented in the petition, and no information on this potential factor was available in our files. Some qualitative information was presented related to predation, which is generally consistent with information available in our files. However, the petition did not present, and our files do not include, quantitative or specific information on the possible impacts of predation on Lake Sammamish kokanee. Therefore, we find that the petition does not present substantial information indicating that disease or predation factors may present a threat to Lake Sammamish kokanee.

*D. Inadequacy of Existing Regulatory Mechanisms*

The petitioners assert that the continued destruction, modification and curtailment of habitat and other manmade factors are having significant impacts on Lake Sammamish kokanee, and are not regulated in a manner that protects the population (Trout Unlimited *et al.* 2007, p. 25). The petitioners claim that although some conservation benefits to Lake Sammamish kokanee may be gained through the recently adopted Federal recovery plan for listed Puget Sound Chinook salmon (Shared Strategy Development Committee 2007), this plan does not specifically address conservation or recovery of kokanee (Trout Unlimited *et al.* 2007, p. 27). Consequently, the petitioners state that the effectiveness of this plan to incidentally address currently limiting factors of the Lake Sammamish kokanee population is uncertain. The petition acknowledges that the Washington Department of Fish and Wildlife (WDFW) has committed to monitor the winter/late-run spawner abundance and hydrological conditions in the three known spawning streams as funding and resources allow (Jackson 2006, cited in Trout Unlimited *et al.* 2007, p. 27). However, the petitioners assert that although this monitoring will help refine future management options and create a foundation for a recovery plan, it does not ensure persistence or recovery of the winter/late-run kokanee population. They state that the WDFW is considering a supplementation plan for winter/late-run kokanee, but the petitioners remain concerned that implementation of the plan is uncertain and cannot conserve or recover the species without a comprehensive program that addresses the primary limiting factors and factors leading to the decline of the population. The petitioners also assert that although scientific reviewers have proposed further investigations and studies of the Lake Sammamish kokanee population, policy-makers have not taken the next step of proposing changes to management actions (Trout Unlimited *et al.* 2007, p. 27), and that conservation efforts by WDFW and King County are not enough by themselves to recover the winter/late-run kokanee, given the multiple municipalities that are affecting the Lake Sammamish watershed.

Information in our files indicates that the Cedar River/Sammamish River/Lake Washington watershed (Water Resource Inventory Area 8) has the highest human population in the State, which is projected to increase by 24 percent between 2002 and 2022 (Shared Strategy Development Committee 2007, p. 238). Accordingly, we expect that this already highly urbanized watershed will be further developed. The Puget Sound Salmon Recovery Plan states that regulations, incentives, and educational outreach will be used to implement actions to protect or restore habitat within the Sammamish River, Issaquah Creek, and Lake Sammamish (Shared Strategy Development Committee 2007, p. 242). Where these habitat improvement actions overlap with the Lake Sammamish kokanee distribution (primarily in the mainstem and lake habitats), they are also likely to provide conservation benefits to this species. Jackson (2006, p. 5) states that, at a minimum, the Washington Department of Fish and Wildlife Fish Management Division Region 4 Fish Program would annually collect data needed to estimate escapement of late-run kokanee in the core spawning tributaries (i.e., Lewis Creek, Laughing Jacobs Creek, and Ebright Creek). Jackson (2006, p. 4) also states that, if Lake Sammamish tributary habitat improvements are not addressed, winter/late-run kokanee productivity will not improve and may likely decrease, posing the threat of local or population extinction.

According to information available in our files, existing regulations have been somewhat effective in reducing or slowing development impacts to Lake Sammamish kokanee habitat, but not in eliminating them. Although there is a renewed focus on salmon recovery for the Lake Washington/Lake Sammamish Basin, the conservation benefits to kokanee from recovery actions directed at Chinook salmon remains uncertain.

**Summary of Factor D**

The petition presents information indicating that existing regulations may be inadequate to protect Lake Sammamish kokanee from the continued destruction, modification, and curtailment of habitat, and that conservation or recovery plans that specifically target the petitioned species have not been developed. Information in the petition and in our files supports these claims. Therefore, we find that the petition presents substantial information indicating that the inadequacy of existing regulatory mechanisms may present a threat to Lake Sammamish kokanee.

*E. Other Natural or Manmade Factors Affecting Its Continued Existence*

The petitioners claim past and current fisheries management is a threat to Lake Sammamish kokanee, and describe how the transplanting of millions of nonnative kokanee and sockeye into the system created competition for spawning grounds, food resources in the lakes, and rearing areas (Trout Unlimited *et al.* 2007, p. 21). They also state that when the Issaquah Creek hatchery was built in 1937, the weir forced the kokanee into holding ponds, preventing them from reaching the 32 miles (51 km) of spawning habitat above the barrier. Once it was determined that there was no use for the fish, the hatchery drained the ponds, leaving the kokanee to die (Kvam *et al.* 1999; Buehler, 2000, in Trout Unlimited *et al.*

2007, p. 22). The petitioners also claim that the continued operation of the weir and hatchery production of Chinook and coho salmon (*O. kisutch*) could limit the recovery of summer/early-run kokanee through competition and predation impacts (Trout Unlimited *et al.* 2007, p. 22). Our files also contain information regarding competition associated with the introductions of nonnative sockeye salmon, which are believed to have increased competition with native juvenile kokanee for food resources (Conner *et al.* 2000, p. 30). Summer/early-run and fall/middle-run kokanee may be especially vulnerable to redd superimposition (the excavation of a new nest on top of an existing nest) by sockeye salmon (Berge and Higgins 2003, p. 38). Information in our files indicates that summer/early-run kokanee were destroyed during past hatchery weir operations, which likely contributed to this run's decline. Thousands of summer/early-run kokanee were reportedly killed at the weir during the 1960s and 1970s because of concerns over potential disease transmission (Connor *et al.* 2000, pp. 27–28). The Issaquah Creek weir is still in operation, although the removal of kokanee is no longer practiced. There is insufficient information in our files to determine if future weir operations will threaten summer/early-run kokanee, or whether continued Chinook and coho salmon production threaten kokanee through predation, although predation has been identified by others as a potential concern (Pfeifer 1995, p. 17). Information in our files suggests that competition for spawning sites with Chinook and coho salmon may be a threat to summer/early-run and fall/middle-run kokanee (Berge and Higgins 2003, p. 38), but not to winter/late-run kokanee because of differences in habitat use (Berge and Higgins 2003, pp. 38–39).

The petitioners assert that climate change is one of the potentially largest future impacts to kokanee, and that although the impact of different climate scenarios on salmonids is an active area of scientific research, the impact on kokanee has not been thoroughly examined. They claim that increases in regional temperatures could result in thermal barriers for kokanee in stream and lake habitats; act as a fatal stressor to individuals; and alter chemical processes, food web dynamics, lake stratification, nutrient cycling, and hydrologic patterns. The petition states that while the effects of climate change are harder to pinpoint, they are real, imminent and must be proactively addressed to ensure that kokanee survive into the future (Trout Unlimited *et al.* 2007, p. 26). Information in our files indicates that since 1950, the average annual air temperatures at the majority of meteorological stations in the northwestern region have increased by approximately 0.25 degrees Celsius (C) per decade, and climate models predict an additional increase of 1.5 to 3.2 degrees C by the middle of the 21st century (Battin *et al.* 2007, p. 6720). The increases in air temperature for the Puget Sound region during the 20th century are evident, and further significant increases are predicted by the middle of the 21st century (Snover *et al.* 2005, p. 13; Battin *et al.* 2007, p. 6720). Snover *et al.* (2005, pp. 6–7) described a range of projected habitat changes for waters in the Puget Sound region similar to those identified by the petitioners. Nelitz *et al.* (2007, p. 18) state that in the Pacific Region of Canada (British Columbia and Yukon Territory), watersheds where thermal regimes are currently near the upper tolerance limits for salmon migration and spawning will likely be the most vulnerable to future changes and resultant adverse effects on salmon.

### Summary of Factor E

The petition presents information indicating that competition with other salmonids may pose a threat to some of the Lake Sammamish kokanee runs, and potential climate change impacts could threaten the population. Based on that information and on information available in our files, we conclude that substantial information exists to indicate that other natural or manmade factors may present a threat to Lake Sammamish kokanee.

### Finding

We have reviewed the petition and the literature cited in the petition, and evaluated the information to determine whether the sources cited support the claims made in the petition. We also reviewed reliable information that was readily available in our files to evaluate the petition.

Berge and Higgens (2003, p. 3) state that the distribution of native kokanee in the greater Lake Washington watershed appears to be limited to the Lake Sammamish population. Populations that spawned in Lake Washington tributaries (other than the Sammamish River system) appear to be functionally extinct (Berge and Higgins 2003, pp. 3, 26). The Lake Sammamish population diversity and abundance has also declined significantly, with apparently only one of the three run-timings remaining extant (Connor *et al.* 2000, p. 15; Berge and Higgins 2003, p. 21, 33; Jackson 2006, p. 1).

If, as the petitioners suggest, Lake Sammamish kokanee constitute a distinct vertebrate population segment, we find that the petition presents substantial information to indicate that listing Lake Sammamish kokanee under the Act may be warranted due to: (1) The present destruction, modification, or curtailment of the population's habitat or range (Factor A); (2) the inadequacy of existing regulatory mechanisms (Factor D); and (3) other natural or manmade factors affecting its continued existence (Factor E).

In summary, we conclude that the petition has presented substantial information that listing may be warranted for Lake Sammamish kokanee. As such, we are initiating a status review to determine whether listing Lake Sammamish kokanee under the Act is warranted.

### References Cited

A complete list of all references cited is available on the Internet at *http://www.regulations.gov* and upon request from the Western Washington Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT**).

### Author

The primary authors of this document are staff of the Western Washington Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT**).

### Authority

The authority for this action is the Endangered Species Act of 1973, as amended (16 U.S.C. 1531 *et seq.*).

Dated: April 28, 2008.

**Kenneth Stansell,**

*Acting Director, U.S. Fish and Wildlife Service.*

[FR Doc. E8–9832 Filed 5–5–08; 8:45 am]

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## DEPARTMENT OF COMMERCE

## National Oceanic and Atmospheric Administration

## 50 CFR Parts 600 and 635

**[Docket No. 070801432–7435–01]**

**RIN 0648–AV92**

## Atlantic Highly Migratory Species; Atlantic Tuna Fisheries; Gear Authorization and Turtle Control Devices

**AGENCY:** National Marine Fisheries Service (NMFS), National Oceanic and

Atmospheric Administration (NOAA), Commerce.

**ACTION:** Proposed rule; request for comments; notice of public hearings.

**SUMMARY:** NMFS proposes to authorize green-stick gear for the harvest of Atlantic tunas, including bluefin tuna (BFT); authorize harpoon gear for the harvest of Atlantic tunas, including BFT, in the Highly Migratory Species (HMS) Charter/Headboat (CHB) category; and require a sea turtle control device in Atlantic HMS pelagic longline (PLL) and bottom longline (BLL) fisheries. Public comments have been received requesting authorization of these gears for harvest of Atlantic tunas. The purpose of this proposed rule is to provide additional opportunities for fishermen to harvest Atlantic tunas within quotas, size limits, or other established limitations and to distinguish green-stick fishing gear from current definitions of other authorized gear types. The purpose of the proposed rule to require sea turtle control devices in the PLL and BLL fisheries is to achieve and maintain low post-release mortality of sea turtles thus maintaining consistency with the 2004 Biological Opinion (BiOp) for the Atlantic PLL fishery and to increase safety at sea for fishermen when handling sea turtles caught or entangled in longline fishing gear.

**DATES:** Written comments on the proposed rule must be received by June 16, 2008. Hearings will be held in May and June 2008. See the preamble of this notice for specific dates, times, and locations.

**ADDRESSES:** Comments may be submitted by any one of the following methods (please identify comments by ''0648–AV92''):

- Electronic Submissions: Submit all electronic public comments via the Federal eRulemaking Portal *http://www.regulations.gov*
- Fax: 727–824–5398, Attn: Randy Blankinship
- Mail: Randy Blankinship, Highly Migratory Species Management Division, National Marine Fisheries Service, 263 13th Avenue South, Saint Petersburg, FL 33701

Instructions: All comments received are part of the public record and will generally be posted to Portal *http://www.regulations.gov* without change. All Personal Identifying Information (for example, name, address, etc.) voluntarily submitted by the commenter may be publicly accessible. Do not submit Confidential Business Information or otherwise sensitive or protected information. NMFS will accept anonymous comments. Attachments to electronic comments will be accepted in Microsoft Word, Excel, WordPerfect, or Adobe PDF file formats only.

The hearings will be held in Saint Peterburg, FL; Manteo, NC; Manahawkin, NJ; Gloucester, MA; Belle Chasse, LA; and Orlando, FL. See the preamble of this notice for specific dates, times, and locations.

Supporting documents including the Environmental Assessment, Initial Regulatory Flexibility Analysis, and Regulatory Impact Review associated with this proposed rule are available from NMFS upon request.

**FOR FURTHER INFORMATION CONTACT:** Randy Blankinship, 727–824–5399, or Sarah McLaughlin, 978–281–9260.

**SUPPLEMENTARY INFORMATION:** Atlantic tunas are managed under the dual authority of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) and the Atlantic Tunas Convention Act (ATCA). ATCA authorizes the Secretary of Commerce (Secretary) to promulgate regulations, as may be necessary and appropriate, to implement recommendations by the International Commission for the Conservation of Atlantic Tunas (ICCAT). The authority to issue regulations under the Magnuson-Stevens Act and ATCA has been delegated from the Secretary to the Assistant Administrator for Fisheries, NOAA (AA). The implementing regulations for Atlantic HMS are at 50 CFR part 635.

## Background

On May 28, 1999, NMFS published in the **Federal Register** (64 FR 29090) final regulations, effective July 1, 1999, implementing the Fishery Management Plan for Atlantic Tunas, Swordfish, and Sharks (1999 FMP). Among other things, these regulations included a list of fishing gears authorized for harvest of HMS. On October 2, 2006, NMFS published in the **Federal Register** final regulations (71 FR 58058), effective November 1, 2006, implementing the ''Final Consolidated Atlantic HMS Fishery Management Plan'' (Consolidated HMS FMP), which consolidated the management of all Atlantic HMS (i.e., sharks, swordfish, tunas, and billfish) into one comprehensive FMP.

This proposed rule would: (1) authorize green-stick gear for the harvest of Atlantic tunas by Atlantic Tunas General category permitted vessels; (2) authorize green-stick gear for the harvest of Atlantic tunas by HMS Charter/Headboat (CHB) permitted vessels; (3) authorize green-stick gear for harvest of Atlantic tunas by Atlantic Tunas Longline category permitted vessels (but continuing to restrict BFT retention to incidental retention only); (4) authorize harpoon use for Atlantic tunas fishing by HMS CHB permitted vessels; and (5) require possession and use of a sea turtle control device as an addition to the already existing requirements for sea turtle bycatch mitigation gear. This action is published in accordance with the framework procedures set forth in the Consolidated HMS FMP and is supported by the analytical documents prepared for the Consolidated HMS FMP.

Green-stick and harpoon gears are used primarily to catch yellowfin tuna (YFT) and BFT, respectively. The most recent YFT stock assessment, conducted in 2003, indicated that the range of biomass estimates (B) spanned the estimate of biomass at maximum sustainable yield ($B_{MSY}$), and the range of fishing mortality (F) estimates spanned the estimate of fishing mortality at MSY ($F_{MSY}$). This means that the stock may be approaching an overfished condition. YFT is the principal species of tropical tuna landed by U.S. fisheries in the western North Atlantic. Total estimated landings, including recreational landings, were 5,568 metric tons (mt) and 7,075 mt in 2005 and 2006, respectively, as reported by the United States to ICCAT in 2007.

The latest western Atlantic BFT stock assessment conducted in 2006 indicated that estimated spawning stock biomass (SSB) levels were well below the estimated $SSB_{MSY}$ and estimates of F were above $F_{MSY}$. Thus, for western Atlantic BFT, the stock is overfished and overfishing is occurring. The ICCAT Standing Committee on Research and Statistics (SCRS) considered this and other information when making recommendations to ICCAT for setting total allowable catch (TAC) limits that would allow for stock rebuilding. Among ICCAT member states, the United States receives 57.48 percent of the adjusted western Atlantic BFT TAC which is determined after allocations have been made for member states with minor harvests and for bycatch/incidental catch by the United States, Canada, and Mexico. For 2007, the total U.S. TAC is 1,190.12 mt. From 1982 to 2004, the level of U.S. BFT landings were generally reflective of the annual U.S. quota. That is, regulatory mechanisms capped landing levels near annual quotas. Since 2004, total BFT landings have been considerably less than the adjusted fishing year quota with 2005, 2006, and 2007 landings representing 33, 15, and 40 percent of

the adjusted quotas for those fishing years, respectively. Commercial fisheries are focused on ''large medium'' BFT [73 inches (185 cm) to less than 81 inches (206 cm)] and ''giant'' BFT [81 inches (206 cm) or greater]. Commercial categories are monitored by a census of landing cards (submitted for each fish landed), whereas recreational catch and landings are monitored by NMFS via the Large Pelagic Survey, the NMFS Automated Landings Reporting System, and cooperative state harvest tagging programs in North Carolina and Maryland. The majority of BFT landings are by handgear fisheries in the commercial Atlantic Tunas General category and recreational HMS Angling and HMS CHB categories. Atlantic Tunas General category fisheries are focused in New England during the summer and fall and the South Atlantic during the winter. Atlantic Tunas General category fishing year quotas, adjusted as necessary for underharvest, have not been met since 2004, when landings amounted to 96 percent of the quota. Atlantic Tunas General category landings, as a percentage of adjusted General category quota, were 33 percent (234 mt out of 707.3 mt) for 2005, 14 percent for 2006 (165 mt out of 1,163.3 mt), and 19 percent for 2007 (121 mt out of 643.6 mt).

BFT movements throughout the Atlantic are the subject of much research and affect the availability of harvest for regional fisheries. Over the last few years, the availability of large medium and giant BFT in the New England area has declined, which has reduced the ability of Atlantic Tunas General category fishermen to harvest the June through September subquotas and the ability of purse seine and harpoon fishermen to harvest their respective quotas, which are traditionally taken in the New England region. The reason for the decline in availability of medium and giant BFT is unknown, but two possible explanations are: 1) that the distribution of BFT in the Atlantic has changed in recent years with more fish present in North Atlantic waters off Canada; and/or 2) BFT abundance has decreased in the Western Atlantic.

NMFS intends with this proposed rule to allow harvest of Atlantic tunas with gears that are generally efficient in harvesting target species and, at the same time, are low in bycatch and bycatch mortality. Allowing gears with these characteristics may have benefits to target and non-target species over gear with higher bycatch and bycatch mortality levels. As described above, since 2004, U.S. BFT landings have been well within the U.S. quota allocation. Authorization of green-stick and harpoon gears in this proposed rule is not expected to result in a great increase in BFT landings; however, if an increase were to occur, repeated quota under-harvests in recent years indicate that room exists within the U.S. BFT quota allocation to allow for some additional landings. Additionally, the 2006 ICCAT Recommendation regarding western Atlantic BFT included a provision for a Contracting Party to transfer up to 15% of its TAC to other Contracting Parties. Also, there is continued interest among ICCAT contracting parties for unharvested western Atlantic BFT quota, and this has the potential to result in requests for transfer of TAC and/or reallocation of the Western Atlantic TAC at ICCAT to other member nations in the future. To the extent that the U.S. fishery is able to fill the U.S. BFT quota, the United States would increase the likelihood of maintaining its allocation.

The 2004 BiOp for the PLL fishery found that the long-term continued operation of the Atlantic PLL fishery as proposed was likely to jeopardize the continued existence of leatherback sea turtles, a species listed as endangered under the Endangered Species Act (ESA). Reasonable and prudent alternatives (RPAs) under section 7 of the ESA (50 CFR 402.02) were developed and implemented to avoid jeopardy by, among other things, reducing post-release mortality of leatherback turtles. The RPAs included several measures to accomplish these goals, one of which was to require the use of gear removal measures to maximize post-release survival. On July 6, 2004, NMFS published the final rule (69 FR 40736) implementing sea turtle bycatch and bycatch mortality mitigation measures for the PLL fishery. This final rule provided for additional rulemaking and non-regulatory actions, as necessary, to implement any other management measures required under the 2004 BiOp.

**Fishing Gear Authorization - Green-Stick Gear**

Green-stick gear is a fishing gear generally used for tuna fishing in several areas of the world and consists of a mainline with hooks on leaders or gangions trolled from a long fiberglass or bamboo pole. Baits used with green-stick gear may be artificial or natural. Green-stick gear has been used in the Atlantic commercial and recreational bigeye (BET), albacore, YFT, skipjack (collectively referred to as BAYS tunas), and BFT fisheries since the mid–1990s, but it was not originally included as a separate gear on the list of authorized HMS fishery gears in the 1999 FMP. Logbook records show that commercial catches of BAYS and BFT with green-stick gear continued in the Atlantic Tunas General, Atlantic Tunas Longline, and the HMS CHB categories and were classified either as ''handgear'' catches in the Atlantic Tunas General and HMS CHB categories or as ''longline'' catches in the Atlantic Tunas Longline category, depending on gear configuration. In recent years, public comments indicate that green-stick gear use, under current regulations, does not well suit the fishing methods and locations preferred by fishermen wanting to use the gear.

In order to address these public comments, NMFS considered an alternative in the Draft Consolidated HMS FMP to authorize green-stick gear for harvest of BAYS tunas. Sparse data on green-stick gear use that was available for the Draft Consolidated HMS FMP indicated that YFT dominated green-stick gear landings with BFT and BET making up a small portion of the catch. During public comment on the Draft Consolidated HMS FMP, comment was received expressing interest in using the gear to target other species, including BFT.

NMFS had, and continues to have, concern about the health of BFT stocks as they are severely overfished with overfishing occurring. Because of NMFS' concern at that time about the potential for increased effort that might occur, and the potential for such an increase in effort and interest in targeting BFT to negatively affect BFT stocks, NMFS did not authorize green-stick gear as a separate gear at that time in the Final Consolidated HMS FMP.

Instead, in the Consolidated HMS FMP, NMFS clarified that green-stick gear could continue to be used in a limited way as long as the green-stick gear use met the definition of ''longline'' (three or more hooks are attached by leaders or gangions to a mainline) or ''handgear'' (two hooks or fewer). Subsequently, HMS Advisory Panel (AP) and public comments on green-stick gear use continued to indicate that green-stick gear possession and its use as allowed under these definitions in the Atlantic Tunas General, HMS CHB, and Atlantic Tunas Longline categories does not well suit the fishing methods and locations preferred by fishermen wanting to use the gear. In these three categories, green-stick gear has historically been fished with up to 10 hooks or gangions. Under the current definitions, green-stick gear with three or more hooks or gangions attached to a mainline would be considered a longline; however, longline is not an authorized gear for Atlantic Tunas

General or HMS CHB category permitted vessels. Also under current regulations regarding Atlantic Tunas Longline permitted vessels, green-stick gear with three or more hooks attached to a mainline, which meets the definition of longline, may not be possessed in PLL or BLL closed areas.

Following publication of the Consolidated HMS FMP, NMFS continued to look for additional data to characterize more completely the green-stick gear fishery and collected anecdotal information from the public about the green-stick gear fishery. Additional data on green-stick gear fishing not included in the Draft Consolidated HMS FMP was obtained from NMFS Coastal Logbooks. These data also showed that YFT dominated the green-stick gear catch and that BET and BFT were the second and third largest green-stick gear catch by weight from 1999–2007. The Coastal Logbooks also showed that green-stick gear has a low bycatch rate and that the gear has been used over a long period of time. These data confirmed other anecdotal information received from fishermen about the dominant species caught and bycatch rate of the green-stick gear fishery. They also indicated that fishing pressure on BFT stocks has occurred with green-stick gear since at least 1999 and these landings have been recorded and included in the overall U.S. BFT catch data reported to ICCAT, even if it has been difficult to specifically identify these landings by gear. While there is a possibility that effort in the BFT fishery may increase if green-stick gear is authorized for harvest, the information above indicates that green-stick gear effort has developed to its current level over a period of several years. Due to the capital investments involved in rigging a vessel to use green-stick gear that are described below along with the harvest monitoring and size and retention limit capabilities available to NMFS to limit harvest of BFT as needed, NMFS believes that it is unlikely that effort in the green-stick fishery for BFT will increase greatly or that effort increases will significantly impact BFT stocks.

During this period, NMFS continued to receive comment on the gear definitions as they applied to rod and reel gear. Fishermen said that it has been common practice in many fisheries for many years to use more than two hooks on rod and reel gear. As mentioned previously, rod and reel is commonly described by NMFS as having no more than two hooks to avoid confusion with the longline definition which states that a longline ''...consists of a mainline or groundline with three or more leaders (gangions) and hooks, whether retrieved by hand or mechanical means (50 CFR 635.2).'' To address confusion and comments from the public requesting the continued ability to use more than two hooks on rod and reel, NMFS notes that the absence of a mainline on rod and reel gear excludes it from the longline definition and thus, it may be used with more than two hooks.

In this action, NMFS proposes the authorization of green-stick gear in the Atlantic tunas fishery (to include BFT) after considering 1)the additional data on the green-stick gear fishery which confirmed that YFT dominate the catch; 2) that BET and BFT have been landed with this gear over the period 1999–2007; 3) that large increases in effort or landings of BFT in the green-stick gear fishery are unlikely; and 4) that bycatch rates in the green-stick fishery are low. When developing this proposed rule, NMFS assessed the available information on past and present use of green-stick gear in Atlantic tuna fisheries as a baseline for analyzing the anticipated effects of green-stick gear. The proposed rule would define green-stick gear as an ''an actively trolled mainline attached to a vessel and elevated or suspended above the surface of the water with no more than 10 hooks or gangions attached to the mainline. The suspended line, attached gangions and/or hooks, and catch may be retrieved collectively by hand or mechanical means. Green-stick does not constitute a pelagic longline or a bottom longline as defined in this section or as described at § 635.21(c) or § 635.21(d), respectively.'' Green-stick gear is also distinguished from PLL and BLL gear in that green-stick gear is actively trolled and does not have floats capable of supporting the mainline, as with PLL, nor weights and/or anchors capable of maintaining contact between the mainline and the ocean bottom, as with BLL. With such distinction between gears, this proposed rule would allow green-stick gear to be used by Atlantic Tunas Longline category permitted vessels at times and in areas including, but not limited to, times and areas closed to longline fishing if the requirements for removal of any one of the elements of a pelagic longline are met. The proposed rule would not change the target catch requirements currently in place for Atlantic Tunas Longline vessels, thus ensuring that BFT would remain an incidental catch in the longline fishery regardless of whether green-stick gear is used.

Collection of data on fishing activity with green-stick gear is important to adequately assess gear performance, efficiency, and bycatch levels. Two existing programs that may be used to collect information on the green-stick gear fishery are vessel logbooks and dealer reports. Currently, NMFS has the authority to require logbook reporting by HMS CHB and Atlantic tunas vessels for which a permit has been issued. However, only Atlantic Tunas Longline category permit holders currently are selected for reporting and thus required to report via logbooks. The logbook program provides self-reported catch, effort, and discard information. Although not currently proposed, if NMFS were to require HMS CHB and Atlantic Tunas General category vessels to report via logbooks, a large increase in the capacity of the logbook program would be required to handle the increased number of logbook reports. Dealer reports made through the trip ticket program in the southeastern United States and various dealer reporting programs in the northeastern United States could provide landings information and, for some states, effort information. This information is gathered by dealers or their staff based on interviews of the vessel captain or crew. To facilitate green-stick gear specific data collection, coordination of data collection effort for this gear among states and regions and designation of a specific gear code would likely be necessary. NMFS seeks public comment on the pros and cons of these data collection programs regarding the quality and applicability of the information collected as well as social and economic impacts.

Under existing regulations, Atlantic Tunas Longline category permitted vessels are currently allowed to possess onboard and/or use only 18/0 or larger circle hooks with an offset not to exceed 10° and/or 16/0 or larger non-offset circle hooks in all areas except the Northeast Distant area, where other requirements apply (50 CFR 635.21(c)(5)(iii)(C)). The existing regulation was developed to reduce post-release hooking mortality (PRM) of sea turtles with the added benefit of reducing PRM of Atlantic billfish, other bycatch species, and regulatory discards. As green-stick fishing gear is actively trolled and the baits are fished at or above the surface of the water, circle hooks used with green-stick gear are not as effective in hooking fish because the line and hook cannot be slowly and steadily pulled through the mouth to lodge in the fish's jaw. Instead fish are hooked when the fish actively strikes the bait. As a result of this active strike, J-hooks are less likely to be ingested. Ingestion of hooks by fish has been related to the practice of dropping

baits back to the fish thereby allowing the fish more time to swallow a bait. Dropping baits back to a fish is not practiced with green-stick gear because the action of the bait that lures a fish to strike is caused by tension on the mainline, the flex of the fiberglass pole, and the forward movement of the vessel while actively trolling. The fish strike occurs when the baits are actively trolled at or above the surface of the water. Also, the size of the mainline and haul-back gear, which is often power operated, does not facilitate effective and timely drop-back of the bait as is possible with a rod and reel. Because J-hooks are more effective than circle hooks when fished with green-stick gear, and J-hooks are not expected to result in high PRM rates, this proposed rule would allow Atlantic Tunas Longline permitted vessels to possess no more than 20 J-hooks if green-stick gear is onboard. Onboard Atlantic Tunas Longline permitted vessels, J-hooks would only be allowed for use with green-stick gear, and would be limited to 10 hooks for each green-stick gear.

In the Gulf of Mexico, PLL vessels are prohibited from using live bait in order to reduce the incidental catch of Atlantic billfish. NMFS is concerned that the 20 J-hook allowance, as described above, may decrease NMFS ability to enforce the live bait prohibition because many fishing rigs that are used to catch live bait are rigged with J-hooks. The possession of such J-hooks is currently prohibited. NMFS seeks comment on the possibility of establishing a minimum hook size for J-hooks allowed with green-stick gear onboard Atlantic Tunas Longline Permitted vessels. Such a requirement could be applied to the entire Atlantic, Gulf of Mexico, and Caribbean Sea or to the Gulf of Mexico only.

PLL vessels are restricted in the Northeast Distant Restricted Fishing Area (NED) to possessing onboard and/or using only whole Atlantic mackerel and/or squid bait for the purpose of reducing sea turtle interactions as stipulated by the 2004 BiOp. For similar reasons, PLL vessels outside the NED are restricted to possessing onboard and/or using only whole finfish and/or squid bait. Green-stick gear is usually fished with artificial baits most of which are shaped like squid and made of rubber or plastic. The baits are preferred because they last longer on the hook when trolled in comparison to natural, dead squid which often fall apart relatively quickly when trolled. Some PLL vessels are rigged with and use both green-stick gear and longline gear on the same trip. NMFS seeks comment on allowing PLL vessels to possess and/or use artificial baits if green-stick gear is onboard.

A portion of green-stick landings has been reported via the NMFS Southeast Region's Coastal Logbook from 1999–2007 (i.e., by Atlantic Tunas General or Atlantic Tunas Longline category fishermen who also hold a NMFS Southeast Region fishing permit that requires logbook reporting). The limited amount of available data from these 98 fishing trips indicates that green-stick gear landings were dominated by YFT (82.9 percent), followed by BET (9.8 percent), BFT (2.3 percent), and little tunny (2.0 percent) by weight. All of the landings were reported from the area off the mid-Atlantic states.

Some commercial green-stick gear catches were reported in the PLL Logbook Program from 1999–2002 prior to the green-stick gear data field being eliminated from the logbook form in 2003. Of the 54 green-stick gear sets reported, 53 were from the Mid-Atlantic Bight Statistical Area and one set was reported from the Northeast Coastal Statistical Area. Landings from this dataset were dominated by YFT (81.9 percent), followed by dolphin fish (6.9 percent) and other BAYS tunas (6.5 percent) by number. Several other species were reported as well, including four BFT.

There is a potential for increased landings of YFT, BET, BFT, and other HMS under this proposed rule, but NMFS cannot accurately quantify anticipated landings for this gear due to the limited amount of effort and landings information available. These potential increases are not anticipated to be large however, because this gear type has been and continues to be used in Atlantic HMS fisheries. Some green-stick gear logbook information is included in species-specific stock assessments as the effort and landings are grouped with other fishing activity conducted with similar fishing techniques, such as trolling. This somewhat mitigates the lack of information specific to green-stick gear as stock assessment estimates of fishing mortality historically included and continue to include some green-stick gear fishing activity. Additionally, for BFT, all landings are required to be reported (commercial landings by dealers and via logbooks if a vessel is selected, and recreational landings via the NMFS Automated Landings Reporting System, on-line, or, in North Carolina or Maryland, to a reporting station); therefore, landings with green-stick gear have been and continue to be counted against the U.S. BFT quota.

As of November 30, 2007, there were 3,616 Atlantic Tunas General, 3,901 HMS CHB, and 218 Atlantic Tunas Longline Category permitted vessels that, under this proposed rule, would be authorized to use green-stick gear. Because no mechanism exists to identify whether an individual HMS-permitted vessel uses green-stick gear, an accurate count of these vessels cannot be obtained; however, a small portion of these vessels likely use green-stick gear and would continue to do so. While NMFS does not anticipate greatly increased landings from these vessels, this action could result in an increase in the overall effort deployed by these categories of permit holders. This could occur if additional fishermen become aware of green-stick gear efficiency in catching Atlantic tunas and of the higher quality of fish product that can be delivered to the dock, resulting in higher ex-vessel prices. Green-stick gear could also be deployed at times and in ways that enable more hooks to be fished during a trip, such as while a vessel is in transit between fishing locations and during times that other authorized gears may be deployed. Thus, NMFS anticipates that if increased landings occur, the largest increases likely would be for YFT, BET, and BFT as these are the three most frequently caught tunas reported in Coastal and PLL logbooks. NMFS anticipates that any such increase in effort would result in minimal increases in bycatch or bycatch mortality of target and non-target species.

Under this proposed rule, bycatch mortality of released fish, including billfish, is anticipated to be low given that baits on green-stick gear are trolled at high speed and deployed at or slightly above the surface of the water. Fish are hooked as they strike the baits which most frequently results in hooking locations in the jaw or other mouth area and does not often result in deep-hooking. Ingestion of hooks due to dropping the baits back to a fish is not anticipated as dropping the baits back is not practiced with green-stick gear as described above. Adverse ecological impacts are anticipated to be minimal because green-stick gear is an actively trolled and tended gear. Thus, fish may be retrieved quickly resulting in minimal physiological stress and an improved release condition in comparison to longline gear. Also, these same benefits for improved release condition result from the power haul-back capability of green-stick gear, thus in this way, may have benefits over rod and reel for Atlantic tunas. Based on available information, interactions with sharks while using green-stick gear are rare.

Interactions with protected resources are not anticipated to increase as green-stick gear is a surface gear that is actively trolled with baits deployed at or slightly above the surface of the water. Green-stick gear does not typically pose a risk of interaction with protected resources because sea turtles do not feed while swimming at a speed fast enough to keep up with green-stick gear baits while they are trolled, and marine mammals are not known to typically interact with baits trolled at or above the water's surface. The gear is tended as it is fished and therefore can be monitored and or maneuvered to avoid any interactions should they become imminent. There is no record of protected species interactions in the existing data.

The proposed rule is expected to have positive social and economic impacts as green-stick gear is popular with Atlantic Tunas General category permit holders in areas of the Atlantic where it has been used since at least the mid–1990s. Positive economic impacts are expected as authorization of green-stick gear for harvest of Atlantic tunas would allow permit holders some additional opportunities for harvest. Negative public comments were not expressed during a series of public information meetings about green-stick authorization held during the summer of 2007 in Foxboro, MA; Silver Spring, MD; Morehead City, NC; and Saint Petersburg, FL; and at the South Atlantic Fishery Management Council (SAFMC) in Key West, FL. Green-stick gear authorization was also discussed at several HMS Advisory Panel (AP) meetings in recent years. A number of AP members expressed support for green-stick gear authorization for Atlantic tunas including BFT. A commonly expressed reason for support at the public information meetings, the SAFMC meeting, and the HMS AP meetings was the low bycatch rate of green-stick gear and the potential for low post-release morality rates of fish released from green-stick gear in comparison with other fishing gears such as longline (which is not tended) or rod and reel (due to long average fight times).

**Fishing Gear Authorization - Harpoon**

HMS CHB vessels may currently fish under the Atlantic Tunas General category regulations and may fill the daily retention limit for either the Atlantic Tunas General or the HMS Angling category. The size category of the first BFT retained determines the fishing category applicable to the vessel that day. For example, if an HMS CHB catches and retains a school, large school, or small medium BFT [measuring 27 inches (69 cm) to less than 73 inches (185 cm) curved fork length], the vessel may not retain a commercial-sized BFT [measuring 73 inches (185 cm) or greater] for sale. HMS CHB permitted vessels are allowed one trophy BFT per year, which cannot be sold. HMS CHB vessel operators may sell commercial-sized BFT only when fishing under the Atlantic Tunas General category regulations. Other than for the Harpoon category, dart harpoon use currently is authorized only as a secondary gear (i.e., as cockpit gear) to assist in subduing, or bringing onboard a vessel, Atlantic HMS that have been first caught or captured using authorized primary gears.

This proposed rule would authorize harpoon gear for the commercial harvest of Atlantic tunas, including BFT, for HMS CHB permitted vessels. While fishing under the rules that apply when filling the Atlantic Tunas General category BFT retention limit, HMS CHB vessels would be able to use harpoon gear to fish for and retain BFT greater than 73 inches (185 cm) curved fork length. NMFS received information indicating that authorization of harpoon gear in the HMS CHB category would allow HMS CHB operators increased flexibility and efficiency in harvesting BFT, particularly given the high costs of BFT fishing.

This action would not change the number or size of BFT allowed to be retained on an HMS CHB vessel, but would provide HMS CHB fishermen the opportunity to use harpoon gear in filling the Atlantic Tunas General category daily retention limit. The Atlantic Tunas General category quota and overall U.S. TAC are designed to allow for BFT rebuilding, and the Atlantic Tunas General category retention limit is specified to allow fishing opportunities over the duration of the Atlantic Tunas General category season and in all areas, without exceeding the Atlantic Tunas General category quota.

NMFS does not anticipate that harpoon gear would be used in the pursuit of tunas other than BFT. Available Northeast and Southeast Region Vessel Trip Report data indicate that, for Atlantic tunas fishing, harpoon gear is only used to target BFT. Since 1996, there have been five trips in which harpoon gear was used to land a BAYS tuna and all were trips that targeted swordfish. In these trips, YFT was the tuna species landed. NMFS also anticipates the authorization of harpoon use by HMS CHB vessels will not result in an expanded geographic area of harpoon use for BFT, which has historically been off New England, and primarily on the fishing grounds off Massachusetts, New Hampshire, and Maine, because of availability of commercial-sized fish, fishing ground conditions, and the costs of outfitting a vessel (described below), among others.

There were 3,901 HMS CHB permitted vessels as of November 30, 2007. Focusing on the area where NMFS anticipates that harpoon gear would be used on HMS CHBs to capture a BFT, this action could apply to the 91 HMS CHB permitted vessels in Maine, 53 in New Hampshire, 644 in Massachusetts, and 159 in Rhode Island.

Impacts of handgear used to fish for Atlantic tunas under the Atlantic Tunas General category and Harpoon categories are described in full in the Consolidated HMS FMP. Harpoon gear is selective gear that is used to capture only one large pelagic fish (primarily BFT but also swordfish) at a time. Bycatch and bycatch mortality of commercial handgear is considered to be low, particularly for harpoons, which are thrown individually at a fish, determined by the fisherman to be greater than the minimum commercial size. There is no information or evidence of interactions between harpoon users targeting Atlantic tunas and threatened or endangered sea turtles, marine mammals, or other protected resources. The harpoon fishery is a Category III fishery under the Marine Mammal Protection Act, i.e., one with remote likelihood of serious injury or mortality to marine mammals.

The proposed rule is expected to have positive social and economic impacts, specifically for those vessels that have success in harpooning BFT that may be available at the water's surface. Landings data and information from fishermen indicate that there are times when the feeding behavior of commercial sized BFT makes hooking a fish difficult. NMFS has received comment over the last few years that the abundance and feeding behavior of dogfish is making trolling and chumming for BFT even more difficult. To the extent that a fisherman could harpoon BFT when the fish are present at the water surface, this action could increase the likelihood of fully utilizing the Atlantic Tunas General category daily retention limit. However, NMFS anticipates that the ability to harpoon a BFT will not necessarily lead to a substantial increase in BFT being caught with harpoon gear on HMS CHBs. Use of harpoon gear typically involves installation of a pulpit to the bow of the vessel (with approximate costs ranging from $10,500 - $14,500) and requires a certain degree of skill. There may be

slightly negative social and economic impacts for existing HMS CHB vessel owners due to the potential influx of vessels from the Atlantic Tunas General and Harpoon categories to the HMS CHB category. NMFS does not anticipate the number of permit holders that will seek to change permit categories will be high, due to the other costs and benefits associated with each permit category (such as the requirement for a U.S. Coast Guard Captain's license for HMS CHB vessels).

This action would be consistent with the final rule to implement the 1999 Atlantic Tunas, Swordfish, and Sharks FMP (64 FR 29090, May 28, 1999), which expanded the list of gear types authorized for HMS CHB permitted vessels to include bandit gear (which was already authorized for use by Atlantic Tunas General category permitted vessels) as part of an effort to achieve consistency in HMS regulations. This action would provide consistency in the regulations regarding authorized handgear used historically for commercial harvest of BFT, and would increase opportunities for commercial handgear fishermen to attain the BFT Atlantic Tunas General category quota.

NMFS proposes to authorize harpoon gear for HMS vessels only on non-for-hire trips (such as trips with only captain and crew aboard the vessel). NMFS proposes to restrict harpoon gear use to these trips because of concerns regarding, among other things, safety at sea considerations and bycatch issues. Therefore, if the authorization is restricted to non-for-hire trips, there should be no incentive to harpoon a recreational sized fish (27 to less than 73 inches), because such activity would be illegal, and paid charter passengers, seeking recreational fishing opportunities would not be present. Additionally, under this subalternative, there would be less risk of bycatch and of discard mortality. Vessels on non-for-hire trips, on which the intent is to harvest BFT greater than 73 inches, are not as likely to expend fishing effort in areas of mixed size BFT as are vessels on for-hire trips. As the current regulations state that the size category of the first BFT retained determines the fishing category applicable to the vessel that day, an HMS CHB vessel that catches and retains a school, large school, or small medium BFT (measuring 27 to less than 73 inches curved fork length) may not also retain a commercial-sized BFT (measuring 73 inches or greater) for sale. HMS CHB vessel operators may sell commercial-sized BFT only when fishing under the Atlantic Tunas General category regulations. If harpoons are authorized for HMS CHB vessels on for-hire trips, it is NMFS' understanding that, due to safety and liability concerns, only vessel captain and crew would be involved in harpoon fishing (i.e., paying passengers would not be offered the opportunity to use the gear). Harpoon gear is not authorized for recreational fishing (i.e., under the Angling category permit or applicable fishing regulations). Therefore, if the authorization is restricted to non-for-hire trips only, there should be no incentive to harpoon a recreational sized fish (27 to less than 73 inches), as such activity would be illegal and as paid charter passengers, who would seek recreational fishing opportunities, would not be present. Both subalternatives are expected to result in positive economic impacts as described above, by allowing HMS CHB operators additional opportunities to fully utilize the Atlantic Tunas General category retention limit.

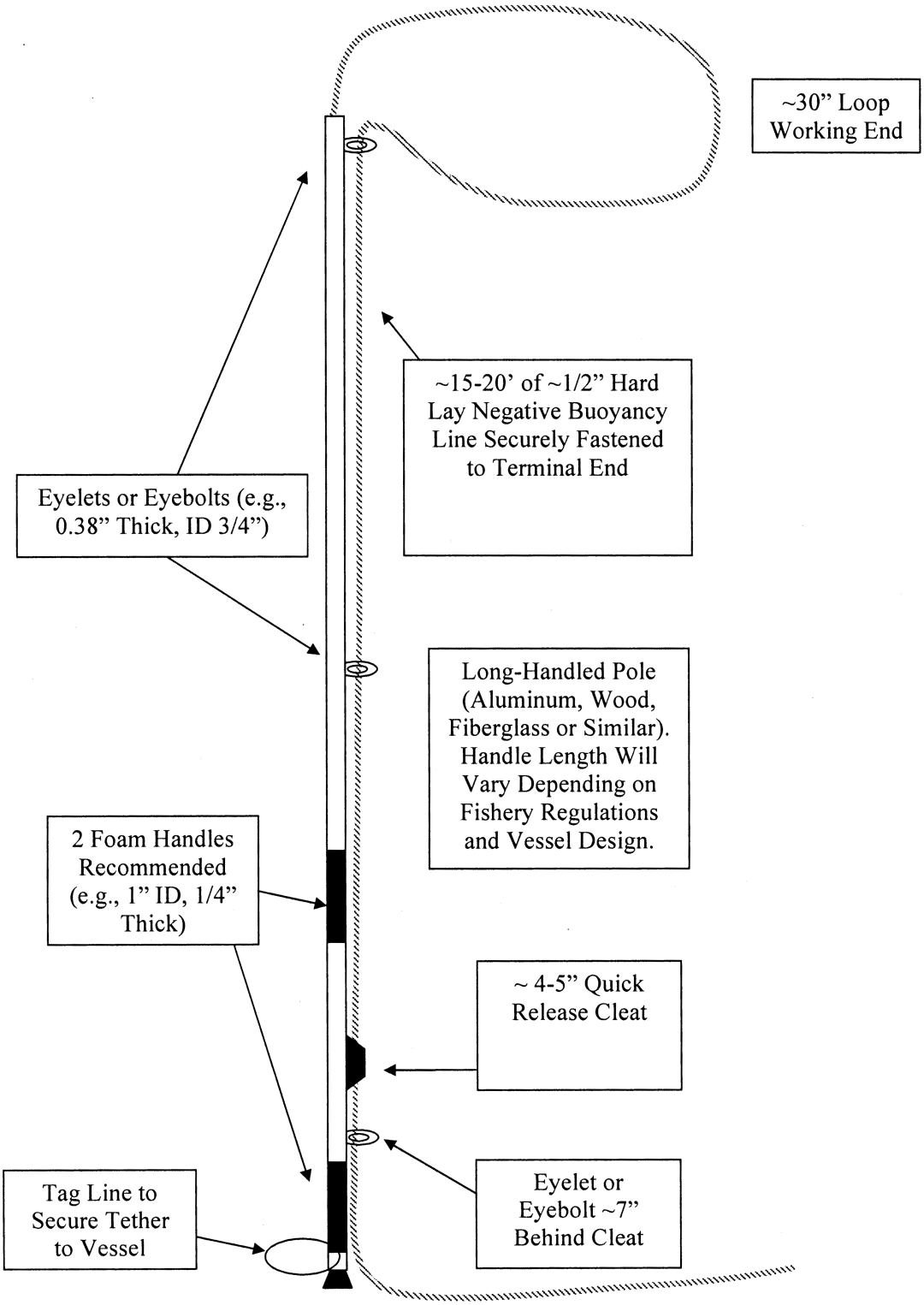
NMFS specifically requests public comment on whether potential authorization of harpoon gear should be for all HMS CHB trips, i.e, both for-hire trips (those taken with paying passengers aboard, more than three persons onboard for uninspected vessels, or more persons aboard than the number of crew specified on the vessel's Certificate of Inspection for U.S. Coast Guard Inspected vessels) and non-for-hire trips (such as trips with captain and crew only) or only for non-for-hire trips.

**Sea Turtle Control Devices**

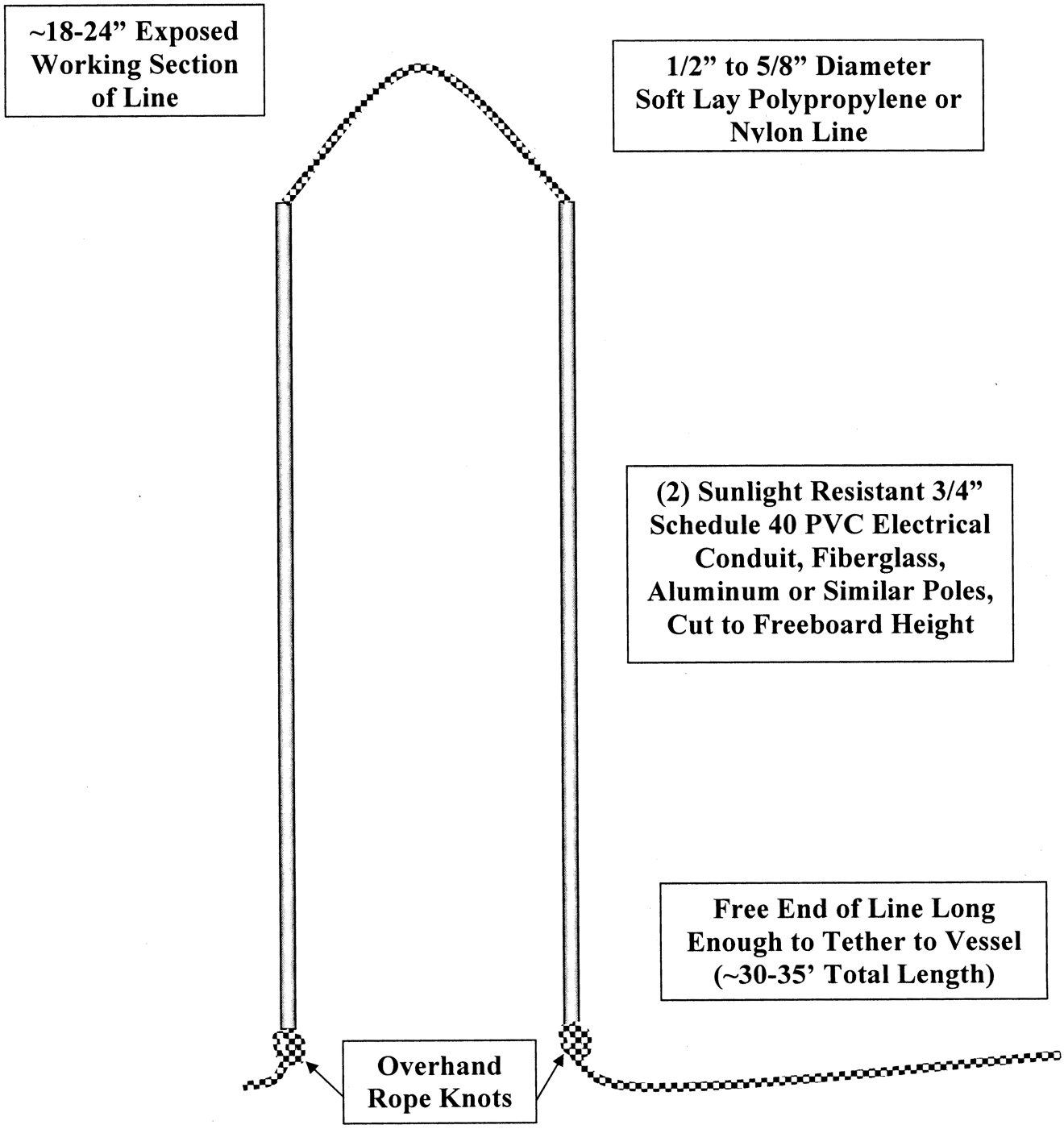
This proposed rule would require possession and use of sea turtle control devices as an addition to the already existing requirements for sea turtle bycatch mitigation gear. Two types of sea turtle control devices, the turtle tether and T&G ninja sticks (Figures 1 and 2), would be approved and required to meet this requirement. These devices were developed by fishermen in the PLL fishery in response to safety concerns for fishing vessel crew members and for incidentally captured sea turtles, as well as to facilitate the likelihood of maximum gear removal and reducing PRM. Subsequently, information collected by the NMFS Southeast Fisheries Science Center showed that use of these two types of sea turtle control devices better enabled fishermen to remove fishing hooks and line from sea turtles by better controlling the animals, thus likely reducing post-release hooking mortality of sea turtles.

BILLING CODE 3510–22–S

# TURTLE TETHER



# T&G Ninja Sticks

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The function of a turtle control device is to control the front flippers of the sea turtle so that the animal can be controlled at the side of the vessel while the gear is removed. Restraint is most effective when a pair of turtle control devices is used (two sets of turtle tethers, two sets of T&G ninja sticks, or one of each style). NMFS only proposes to require one turtle control device be possessed and used onboard; however, it strongly recommends that two devices be possessed and used if vessel and crew size allow.

The proposed rule would have positive, but unquantifiable ecological benefits because an improved ability to remove fishing hooks and line from sea turtles likely improves post-release survival of the sea turtles. The proposed rule may have a safety-at-sea benefit from the use of sea turtle control devices as fishermen using the gear can more easily control large sea turtles while fishing hooks and lines are being removed. Social and economic impacts of the proposed alternative are expected to be minimal. Sea turtle bycatch mitigation gear is currently required on Atlantic PLL and BLL vessels. The turtle tether is currently recommended, but not required as part of that gear. Information on the cost of turtle control devices and the economic impact of this proposed rule may be found in the Classification section below. Design specifications for the turtle tether and T&G ninja sticks are found in Figures 1 and 2. Any turtle control device meeting the design standards could be constructed or purchased and used, as long as the design is first certified according to the process established by the NMFS Pascagoula Laboratory. When new items are certified, a notice in the **Federal Register** will be published as provided for at § 635.21(c)(5)(iv).

## Classification

This proposed rule is published under the authority of the Magnuson-Stevens Act and ATCA. NMFS has preliminarily determined that this action is consistent with the Magnuson-Stevens Act, including the national standards, and other applicable law, subject to further consideration after public comment.

An EA has been prepared that describes the impact on the human environment that could result from implementation of the preferred alternatives to authorize green-stick fishing gear for the harvest of Atlantic tunas, including BFT; authorize harpoon gear for the harvest of Atlantic tunas, including BFT, in the HMS Charter/Headboat (CHB) category; and require sea turtle control devices in Atlantic HMS pelagic longline (PLL) and bottom longline (BLL) fisheries. Based on the EA, Regulatory Impact Review (RIR), and Initial Regulatory Flexibility Analysis (IRFA) under the Regulatory Flexibility Act, and a review of the National Environmental Policy Act (NEPA) criteria for significance evaluated above (NAO 216–6 Section 6.02), no significant effect on the quality of the human environment is anticipated from this action.

This proposed rule has been determined to be not significant for purposes of Executive Order 12866. In compliance with Section 603 of the Regulatory Flexibility Act, an Initial Regulatory Flexibility Analysis was prepared for this rule. The IRFA analyzes the anticipated economic impacts of the preferred actions and any significant alternatives to the proposed rule that could minimize economic impacts on small entities. A summary of the IRFA is below. The full IRFA and analysis of economic and ecological impacts are available from NMFS (see **ADDRESSES**).

In compliance with section 603(b)(1) and (2) of the Regulatory Flexibility Act, the purpose of this proposed rulemaking is, consistent with the Magnuson-Stevens Act and ATCA, to authorize fishing gear in Atlantic tuna fisheries to increase fishery operational flexibility while still achieving the objectives of the Consolidated HMS FMP and to allow fishermen additional opportunities to fulfill U.S. quota allocations. The purpose of the proposed rule to require a sea turtle control device in the PLL and BLL fisheries is to achieve and maintain low post-release mortality of sea turtles, thus maintaining consistency with the 2004 Biological Opinion for the pelagic longline fishery and to increase safety at sea for fishermen when handling sea turtles caught or entangled in longline fishing gear. Section 603(b)(3) requires Agencies to provide an estimate of the number of small entities to which the rule would apply. The proposed rule to authorize green-stick fishing gear for the harvest of Atlantic tunas, including BFT; authorize harpoon gear for the harvest of Atlantic tunas, including BFT, in the HMS CHB category; and require sea turtle control devices in Atlantic HMS PLL and BLL fisheries could directly affect 3,616 Atlantic Tunas General, 3,901 HMS CHB, and 218 Atlantic Tunas Longline category permit holders (permit numbers as of November 30, 2007). All of these permit holders are considered small business entities according to the Small Business Administration's standard for defining a small entity.

None of the proposed actions considered for this proposed rule would result in any new reporting or record keeping requirements (5 U.S.C. 603(c)(1)-(4)). New compliance requirements would occur under the proposed action to require the possession and use of a sea turtle control device onboard PLL and BLL vessels; however, the economic impacts are not expected to be significant. This proposed rule does not conflict, duplicate, or overlap with other relevant Federal rules (5 U.S.C. 603(b)(5).

One of the requirements of an IRFA, under Section 603 of the Regulatory Flexibility Act, is to describe any alternatives to the proposed rule that accomplish the stated objectives and that minimize any significant economic impacts (5 U.S.C. 603(c)). Additionally, the Regulatory Flexibility Act (5 U.S.C. 603 (c)(1)-(4)) lists four categories for alternatives that must be considered. These categories are: (1) establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) clarification, consolidation, or simplification of compliance and reporting requirements under the rule for such small entities; (3) use of performance rather than design standards; and (4) exemptions from coverage for small entities.

In order to meet the objectives of this proposed rule, consistent with the Magnuson-Stevens Act, ATCA, and the Endangered Species Act (ESA), NMFS cannot establish differing compliance requirements for small entities or exempt small entities from compliance requirements. Thus, there are no alternatives that fall under the first and fourth categories described above. NMFS developed the alternative to require a sea turtle control device so that options exist for fishermen to construct the device at minimal cost thus simplifying compliance for all entities including small entities (category 3 above). Similarly, the design standards (category 4 above) used to allow construction of a sea turtle control device at minimal cost satisfies the aforementioned objectives of this rulemaking while, concurrently, complying with the Magnuson-Stevens Act and ESA.

NMFS considered eight different alternatives to authorize fishing gear in Atlantic tuna fisheries to increase fishery operational flexibility in the fishery while still achieving the objectives of the Consolidated HMS FMP, to allow fishermen additional opportunities to fulfill U.S. quota allocations, and to require a sea turtle control device in the PLL and BLL

fisheries to achieve and maintain low post-release mortality of sea turtles. As previously described, and as expanded upon below, NMFS has provided justification for the selection of the preferred alternatives to achieve the desired objectives.

Alternative A1 is a no action, or the status quo alternative. This alternative would maintain existing regulations for harvesting Atlantic tunas, thereby allowing green-stick gear use only as allowed under the current definitions and regulations for longline or handgear based on the gear configuration. This alternative would continue to consider green-stick gear as being within the longline definition if 3 or more hooks are attached, and as handgear if 2 or fewer hooks are attached. The allowable use of the gear in this way impedes operational and economic efficiency in the Atlantic Tunas General category or HMS CHB category because rigging of green-sticks with up to 10 hooks is effective and fishermen have used green-sticks rigged in this way historically for Atlantic tunas. Under alternative A1, the social and economic impacts are expected to be minimal, although unquantified social and economic impacts may occur to Atlantic Tunas General category and HMS CHB permitted vessel holders with the status quo because they would not be allowed to use green-stick gear with 3 hooks or more unless they purchased an Atlantic Tunas Longline permit. This alternative is not preferred because other alternatives increase fishery operational and economic flexibility in the fishery while still achieving the objectives of the Consolidated HMS FMP and to allow fishermen additional opportunities to fulfill U.S. quota allocations.

Alternative A2, a preferred alternative, would define green-stick gear and authorize its use in the commercial Atlantic tuna fishery including BFT. Vessels fishing under the Atlantic Tunas General category would continue to be subject to all current HMS regulations for that category (such as bag and size limits). NMFS does not anticipate greatly increased landings from Atlantic Tunas General category vessels as green-stick gear has been used in HMS fisheries since at least the mid–1990s. While NMFS does not anticipate greatly increased landings, Alternative A2 could result in an increase of overall effort deployed by this category of permit holders. This could occur if additional fishermen become aware of green-stick gear efficiency in catching Atlantic tunas and of the high quality of fish product that can be delivered to the dock as a result. Higher quality fish product often commands high ex-vessel prices, and thus could potentially improve the profitability of trips. Under Alternative A2, authorization of green-stick gear use is expected to have generally positive social impacts as the gear is popular with Atlantic Tunas General category permit holders in areas of the Atlantic where it has been used.

The economic impacts under Alternative A2 are expected to be positive. Authorization of green-stick gear for harvest of Atlantic tunas would allow Atlantic Tunas General category permit holders additional opportunities for harvest. Tuna and other species harvested commercially with green-stick gear are usually high in quality and command higher prices due to the speed with which the fish are brought to the vessel, stored on ice, transported to the dock, and sold. Economic benefits may be realized through continued, and possibly increased, harvest of Atlantic tunas. Use of this gear may result in an unknown number of additional trips. The economic benefits may be minimal, however, as green-stick gear has been used in U.S. Atlantic tuna fisheries for several years.

Green-stick gear ranges in cost from $1,300-$3,300 for the fiberglass pole. Completely outfitting a vessel with hydraulic spool and other tackle to use the gear would cost between $4,000-$6,000 depending on the size of the rig. Anecdotal information indicates that some fishermen may run mainlines from outriggers, a flying bridge, or a tuna tower, which would not be as costly. Outfitting costs are discretionary for fishermen as the gear is not required to participate in the fishery. This gear would be authorized for use from properly permitted vessels only. The current cost of a Federal vessel permit is $28.00 per year.

Alternative A3, a preferred alternative, would define green-stick gear as in Alternative A2 above and authorize its use in the commercial Atlantic tuna fishery for BAYS and BFT by HMS CHB category vessels. This alternative would also authorize green-stick gear for recreational harvest of Atlantic tunas when an HMS CHB permitted vessel is on a for-hire trip. Under current regulations, HMS CHB permitted vessels may sell Atlantic tunas whether or not they are for-hire, thus Atlantic tunas caught under a recreational retention limit on an HMS CHB vessel may be sold. Because of this HMS CHB permit provision and NMFS' intention to authorize green-stick for commercial harvest of Atlantic tunas, NMFS prefers Alternative A3. Vessels fishing under the HMS CHB category would continue to be subject to all current HMS regulations for that category. Alternative A3 is expected to have positive social and economic impacts similar to those described under Alternative A2 above, but with the added economic benefits associated with authorizing the use of green-stick gear for recreational harvest of Atlantic tunas even when an HMS CHB permitted vessel is on a for-hire trip.

Alternative A4, a preferred alternative, would define green-stick gear as in Alternative A2 and authorize its use in the directed commercial Atlantic BAYS tuna fishery and allow for the incidental retention of BFT by Atlantic Tunas Longline category vessels. Green-stick gear can currently be used with more than two hooks by Atlantic Tunas Longline permitted vessels under current target catch and gear (i.e., circle hook) requirements. Alternative A4 would distinguish green-stick gear from longline gear thus allowing green-stick gear to be fished in PLL and BLL closed areas if existing regulations for removal of PLL and BLL gear are met. These regulations state that a vessel is considered to have PLL gear onboard when it has onboard a power-operated longline hauler, a mainline, floats capable of supporting the mainline, and leaders (gangions) with hooks. Likewise, a vessel is considered to have BLL gear onboard when it has onboard a power-operated longline hauler, a mainline, weights and/or anchors capable of maintaining contact between the mainline and the ocean bottom, and leader (gangions) with hooks. For closed areas respective to both PLL and BLL gear, removal of any one of these elements constitutes removal of the PLL or BLL gear. Atlantic Tunas Longline permitted vessels would continue to be subject to current HMS PLL or BLL regulations, whichever is applicable, including the closed areas and circle hook requirements, except that up to 20 J-hooks would be allowed onboard if green-stick gear is also onboard. The J-hooks would only be allowed for use with green-stick gear. This provision to allow up to 20 J-hooks is intended to facilitate the high speed trolling methods used when fishing with green-stick gear. Current requirements to use only circle hooks on PLL gear would remain unchanged.

Alternative A4 is expected to have positive social and economic impacts particularly for longline fishermen. Public and HMS AP member support has been expressed for this alternative as described above. Authorization of green-stick for harvest of Atlantic tunas would allow Atlantic Tunas Longline category permit holders additional

opportunities for harvest. Economic benefits may be realized in similar fashion to Alternatives A2 and A3 above through increased need for fish processing and the sale of additional fishing gear and supplies. The economic benefits for fishing communities as a whole may be minimal, however, as green-stick gear has been and continues to be used in U.S. Atlantic tuna fisheries. Vessel outfitting costs are similar to those described in A2 above.

Alternative B1 would maintain the status quo regarding harpoon use in the Atlantic tuna fisheries. The authorized gears for Atlantic tunas fishing by HMS CHB permitted vessels would remain the same. Harpoon use is currently authorized only for vessels permitted in the Atlantic Tunas General and Harpoon categories. Harpoon gear is selective gear that is used to capture only one large pelagic fish (primarily BFT, but also swordfish) at a time. Bycatch and bycatch mortality of commercial handgear is considered to be low, particularly for harpoons, which are thrown individually at a fish, determined by the fisherman to be greater than the minimum commercial size. There is no information or evidence of interactions between harpoon users targeting Atlantic tunas and threatened or endangered sea turtles, marine mammals, or other protected resources. There were 3,901 HMS CHB permitted vessels as of November 30, 2007. Focusing on the area where NMFS anticipates that harpoon gear would be used on HMS CHBs to capture a BFT, there were 91 HMS CHB permitted vessels in Maine, 53 in New Hampshire, 644 in Massachusetts, and 159 in Rhode Island. Under Alternative B1, NMFS anticipates neutral impacts on permitted HMS vessels, which could continue to fish under the Atlantic Tunas General and Angling category regulations using existing authorized gear. Total Atlantic Tunas General category revenues, which included sale of commercial-sized BFT by HMS CHBs, for the 2006 fishing year were approximately $2.6 million. Atlantic Tunas General category revenues for 2005 and 2004 were approximately $3.8 million and $5.4 million, respectively (in nominal dollars). Atlantic Tunas General category fishing year quotas, adjusted as necessary for underharvest, have not been met since 2004, when landings amounted to 96 percent of the quota. Atlantic Tunas General category landings, as a percentage of adjusted General category quota, were 33 percent (234 mt out of 707.3 mt) for 2005, 14 percent for 2006 (165 mt out of 1,163.3 mt), and 19 percent for 2007 (121 mt out of 643.6 mt).

Alternative B2 would authorize harpoon gear for the commercial harvest of Atlantic tunas, including BFT, for HMS CHB permitted vessels. While fishing under the rules that apply when filling the Atlantic Tunas General category BFT retention limit, HMS CHB vessels would be able to use harpoon gear to fish for and retain BFT greater than 73 inches curved fork length. HMS CHBs may currently fish under the Atlantic Tunas General category regulations and may fill the daily retention limit for either the Atlantic Tunas General or the HMS Angling category. Available vessel trip report data indicate that, for Atlantic tunas fishing, harpoon gear is only used to target BFT. This alternative would not change the number or size of BFT allowed to be retained on an HMS CHB vessel, but would provide HMS CHB fishermen the opportunity to use harpoon gear in filling the Atlantic Tunas General category daily retention limit. Sub-alternative B2a would allow harpoon gear use on all types of CHB trips.

Sub-alternative B2b is the preferred alternative and would limit harpoon use to non-for-hire trips. It is NMFS' understanding that, due to safety and liability concerns, only vessel captain and crew would be involved in harpoon fishing, (i.e., no other passengers would be offered the opportunity to use the gear). Under this preferred alternative, there would be no incentive to harpoon a recreational sized fish (27 inches (69 cm)to less than 73 inches (185 cm)) to fill the Angling category retention limit (to satisfy expectations of individuals chartering the vessel). With effort focused on commercial-sized BFT, bycatch of undersized fish and associated fish mortality is expected to be minimal, particularly as the size of BFT targeted by for-hire CHB vessels fall within the school and large school BFT size classes, i.e., 27–59 inches (69–150 cm).

The Atlantic Tunas General category quota and overall U.S. TAC are designed to allow for BFT rebuilding, and the Atlantic Tunas General category retention limit is specified to allow fishing opportunities over the duration of the Atlantic Tunas General category season and in all areas, without exceeding the Atlantic Tunas General category quota. This action is not expected to result in an expanded geographic area of harpoon use for BFT, which has historically been off New England, and primarily on the fishing grounds off Massachusetts, New Hampshire, and Maine. Therefore, authorization of harpoon gear in the HMS CHB category is not expected to have ecological impacts beyond those previously analyzed in the Consolidated HMS FMP and in the 2007 Fishing Year Atlantic BFT Quota Specifications and Effort Controls Environmental Assessment.

Alternative B2, the preferred alternative, would have positive social and economic impacts, specifically for those vessels that have success harpooning BFT that may be available at the water's surface. To the extent that a fisherman could harpoon BFT when the fish are present at the water surface, Alternative B2 could increase the potential of filling the Atlantic Tunas General category daily retention limit and of gaining more ex-vessel revenue per trip. NMFS anticipates that the number of BFT that would be caught with harpoon gear by HMS CHBs is low. Alternative B2 may have slightly negative social and economic impacts for existing HMS CHB operators due to the potential for Atlantic Tunas General or Harpoon category permit holders to change to the HMS CHB category, potentially increasing competition in the HMS CHB sector and potentially resulting in lower profits for existing permit holders.

Alternative C1, which is the status quo, would continue existing ecological benefits of the current requirements for possession and use of sea turtle bycatch mitigation equipment such as low post-release mortality of sea turtles and other bycatch species. Currently one type of sea turtle control device, the turtle tether, is recommended for possession and use, but is not required. Under the status quo, the benefit of better control of large sea turtles not boated and improvements in hook and fishing gear removal that would result in reduced PRM would not be fully realized, but NMFS is unable to quantify the number of sea turtle mortalities that might occur in the absence of this benefit.

Under Alternative C1, there would be no social and economic impacts. Sea turtle bycatch mitigation gear is currently required in the PLL and BLL fisheries and sea turtle control devices are recommended, but not required. Any safety-at-sea benefit from improved control of large sea turtles not boated would not be fully realized with Alternative C1.

Alternative C2, a preferred alternative, would require possession and use of a sea turtle control device as an addition to the already existing requirements for sea turtle bycatch mitigation gear. Social and economic impacts of Alternative C2 may be positive in that a safety-at-sea benefit from the use of sea turtle control

devices could be realized as fishermen using the gear can more easily control large sea turtles while fishing hooks and lines are being removed. Other social and economic impacts of Alternative C2 are expected to be minimal. It is unknown how many vessels currently follow the recommendation to possess and use sea turtle control devices. Production models of the turtle tether cost from $200-$250 and may be constructed according to the design specifications for $40-$70. Production models of the T&G ninja sticks may be purchased for $175 and may be constructed according to the design specifications for approximately $25-$85. It is difficult to determine the number of Atlantic HMS permitted vessels that use longline and would be affected by this requirement as users of longline gear may possess any one of three permits; however, not all holders of these permits use longline gear. To estimate the total cost of outfitting each vessel in the longline fleet with one sea turtle control device, NMFS totaled the number of Atlantic Tunas Longline, Shark Directed, or Shark Incidental permits, which produced an overestimate of the actual number of permitted vessels affected by the requirement. Based on the number of Atlantic Tunas Longline, Shark Directed, or Shark Incidental permitted vessels as of November 2007, it is estimated that the cost of outfitting the longline fleet with one turtle control device ranges from $18,575, if all permit holders construct the least expensive device, to $185,750, if all permit holders purchase the most expensive model produced.

## Public Hearings

The hearing dates and locations are:

1. May 27, 2008, 6 - 8 p.m., National Marine Fisheries Service Southeast Regional Office, 263 13th Avenue South, Saint Petersburg, FL 33701
2. May 29, 2008, 7 - 9 p.m., Roanoke Island Festival Park, 1 Festival Park, Manteo, NC 27954
3. June 2, 2008, 6 - 8 p.m., Ocean County Library, Stafford Branch, 129 N. Main Street, Manahawkin, NJ 08050
4. June 4, 2008, 3:30 - 5:30 p.m., National Marine Fisheries Service Northeast Regional Office, 1 Blackburn Drive, Gloucester, MA 01930
5. June 4, 2008, 6 - 8 p.m., Plaquemines Parish Government Community Center, Belle Chasse Auditorium, 8398 Hwy. 23, Belle Chasse, LA 70037
6. June 12, 2008, 7 - 9 p.m., Renaissance Orlando Hotel Airport, 5445 Forbes Place, Orlando, FL 32812

The hearing locations are physically accessible to people with disabilities. Requests for sign language interpretation or other auxiliary aids should be directed to Randy Blankinship at 727–824–5399, at least 7 days prior to the meeting.

## List of Subjects

*50 CFR Part 600*

Fisheries, Fishing, Fishing vessels, Foreign relations, Penalties, Reporting and recordkeeping requirements.

*50 CFR Part 635*

Fish, Fisheries, Fishing, Fishing vessels, Reporting and recordkeeping, Management.

Dated: April 30, 2008.

**Samuel D. Rauch III**

*Deputy Assistant Administrator for Regulatory Programs, National Marine Fisheries Service.*

For reasons set out in the preamble, 50 CFR parts 600 and 635 are proposed to be amended as follows:

**Chapter VI**

## PART 600—MAGNUSON-STEVENS ACT PROVISIONS

1. The authority citation for part 600 continues to read as follows:

**Authority:** 5 U.S.C. 561 and 16 U.S.C. 1801 *et seq.*

2. In § 600.725, paragraph (v), under the heading ''IX. Secretary of Commerce,'' entries 1.I and 2 are revised and entry 1.M is added to read as follows:

**§ 600.725 General prohibitions.**

* * * * *

(v) * * *

| % Fishery | % Authorized gear types |
|---|---|
| * * * * * * * | |
| IX. Secretary of Commerce | |
| 1. Atlantic Highly Migratory Species Fisheries (FMP): | |
| * * * * * * * | |
| I. Tuna recreational fishery | I. Speargun gear (for bigeye, albacore, yellowfin, and skipjack tunas only); Rod and reel, handline (all tunas); green-stick gear (HMS Charter/Headboat Category only). |
| * * * * * * * | |
| M. Tuna green-stick fishery | M. Green-stick gear. |
| 2. Commercial Fisheries (Non-FMP) | Rod and reel, handline, longline, gillnet, harpoon, bandit gear, purse seine, green-stick gear. |

* * * * *

## PART 635—ATLANTIC HIGHLY MIGRATORY SPECIES

3. The authority citation for part 635 continues to read as follows:

**Authority:** 16 U.S.C. 971 *et seq.*; 16 U.S.C. 1801 *et seq.*

4. In § 635.2, the definition for ''Green-stick'' is added in alphabetical order to read as follows:

**§ 635.2 Definitions.**

* * * * *

*Green-stick* means an actively trolled mainline attached to a vessel and elevated or suspended above the surface of the water with no more than 10 hooks or gangions attached to the mainline. The suspended line, attached gangions and/or hooks, and catch may be retrieved collectively by hand or mechanical means. Green-stick does not constitute a pelagic longline or a bottom longline as defined in this section or as described at § 635.21(c) or § 635.21(d), respectively.

* * * * *

5. In § 635.21:

a. Paragraphs (c)(2)(v)(A), (c)(2)(v)(B), (c)(2)(v)(D), (c)(2)(v)(G), (c)(5)(i) introductory text, (c)(5)(ii)(A), (c)(5)(ii)(C)(*1*), (e)(1)(ii), (e)(1)(iii), and (e)(1)(v) are revised.

b. Paragraphs (c)(5)(i)(M), (c)(5)(iii)(C)(*3*), and (g) are added.

The revisions and additions read as follows:

**§ 635.21 Gear operation and deployment restrictions.**

* * * * *

(c) * * *

(2) * * *

(v) * * *

(A) The vessel is limited to possessing onboard and/or using only 18/0 or larger circle hooks with an offset not to exceed 100. The outer diameter of the circle hook at its widest point must be no smaller than 2.16 inches (55 mm) when measured with the eye on the hook on the vertical axis (y-axis) and perpendicular to the horizontal axis (x-axis), and the distance between the circle hook point and the shank (i.e., the gap) must be no larger than 1.13 inches (28.8 mm). The allowable offset is measured from the barbed end of the hook and is relative to the parallel plane of the eyed-end, or shank, of the hook

when laid on its side. The only allowable offset circle hooks are those that are offset by the hook manufacturer. If green-stick gear, as defined at § 635.2, is onboard, a vessel may posses up to 20 J-hooks. J-hooks may be used only with green-stick gear, and no more than 10 hooks may be used at one time with each green-stick gear; and,

(B) The vessel is limited, at all times, to possessing onboard and/or using only whole Atlantic mackerel and/or squid bait, except that artificial bait may be possessed and used only with green-stick gear, as defined at § 635.2, if green-stick gear is onboard; and,

* * * * *

(D) Required sea turtle bycatch mitigation gear, which NMFS has approved under paragraph (c)(5)(iv) of this section, on the list of ''NMFS-Approved Models for Equipment Needed for the Careful Release of Sea Turtles Caught In Hook and Line Fisheries,'' must be carried onboard, and must be used in accordance with the handling requirements specified in paragraphs (c)(2)(v)(E) through (G) of this section; and,

* * * * *

(G) *Non-boated turtles.* If a sea turtle is too large, or hooked in a manner that precludes safe boating without causing further damage or injury to the turtle, sea turtle bycatch mitigation gear, specified in paragraph (c)(2)(v)(D) of this section, must be used to disentangle sea turtles from fishing gear and disengage any hooks, or to clip the line and remove as much line as possible from a hook that cannot be removed, prior to releasing the turtle, in accordance with the protocols specified in paragraph (c)(2)(v)(C) of this section. Non-boated turtles should be brought close to the boat and provided with time to calm down. Then, it must be determined whether or not the hook can be removed without causing further injury. A front flipper or flippers of the turtle must be secured, if possible, with an approved turtle control device from the list specified in paragraph (c)(2)(v)(D) of this section. All externally embedded hooks must be removed, unless hook removal would result in further injury to the turtle. No attempt should be made to remove a hook if it has been swallowed, or if it is determined that removal would result in further injury. If the hook cannot be removed and/or if the animal is entangled, as much line as possible must be removed prior to release, using an approved line cutter from the list specified in paragraph (c)(2)(v)(D) of this section. If the hook can be removed, it must be removed using a long-handled dehooker from the list specified in paragraph (c)(2)(v)(D) of this section. Without causing further injury, as much gear as possible must be removed from the turtle prior to its release. Refer to the careful release protocols and handling/release guidelines required in paragraph (c)(2)(v)(C) of this section, and the handling and resuscitation requirements specified in § 223.206(d)(1) of this title, for additional information.

* * * * *

(5) * * *

(i) *Possession and use of required mitigation gear.* Required sea turtle bycatch mitigation gear, which NMFS has approved under paragraph (c)(5)(iv) of this section as meeting the minimum design standards specified in paragraphs (c)(5)(i)(A) through (c)(5)(i)(M) of this section, must be carried onboard, and must be used to disengage any hooked or entangled sea turtles in accordance with the handling requirements specified in paragraph (c)(5)(ii) of this section.

* * * * *

(M) *Turtle control devices.* One turtle control device, as described in paragraph (c)(5)(i)(M)(*1*) or (*2*) of this section, is required onboard and must be used to secure a front flipper of the sea turtle so that the animal can be controlled at the side of the vessel. It is strongly recommended that a pair of turtle control devices be used to secure both front flippers when crew size and conditions allow. Minimum design standards consist of:

(*1*) *Turtle tether and extended reach handle.* Approximately 15–20 feet of 1/2–inch hard lay negative buoyance line is used to make an approximately 30–inch loop to slip over the flipper. The line is fed through a 3/4–inch fair lead, eyelet, or eyebolt at the working end of a pole and through a 3/4–inch eyelet or eyebolt in the midsection. A 1/2–inch quick release cleat holds the line in place near the end of the pole. A final 3/4–inch eyelet or eyebolt should be positioned approximately 7–inches behind the cleat to secure the line, while allowing a safe working distance to avoid injury when releasing the line from the cleat. The line must be securely fastened to an extended reach handle or pole with a minimum length equal to, or greater than, 150 percent of the freeboard, or a minimum of 6 feet (1.83 m), whichever is greater. There is no restriction on the type of material used to construct this handle, as long as it is sturdy. The handle must include a tag line to attach the tether to the vessel to prevent the turtle from breaking away with the tether still attached.

(*2*) *T&G ninja sticks and extended reach handles.* Approximately 30–35 feet of 1/2–inch to 5/8–inch soft lay polypropylene or nylon line or similar is fed through 2 PVC conduit, fiberglass, of similar sturdy poles and knotted using an overhand (recommended) knot at the end of both poles or otherwise secured. There should be approximately 18–24 inches of exposed rope between the poles to be used as a working surface to capture and secure the flipper. Knot the line at the ends of both poles to prevent line slippage if they are not otherwise secured. The remaining line is used to tether the apparatus to the boat unless an additional tag line is used. Two lengths of sunlight resistant 3/4–inch schedule 40 PVC electrical conduit, fiberglass, aluminum, or similar material should be used to construct the apparatus with a minimum length equal to, or greater than, 150 percent of the freeboard, or a minimum of 6 feet (1.83 m), whichever is greater.

(ii) * * *

(A) Sea turtle bycatch mitigation gear, as required by paragraphs (c)(5)(i)(A) through (D) of this section, must be used to disengage any hooked or entangled sea turtles that cannot be brought onboard. Sea turtle bycatch mitigation gear, as required by paragraphs (c)(5)(i)(E) through (M) of this section, must be used to facilitate access, safe handling, disentanglement, and hook removal or hook cutting of sea turtles that can be brought onboard, where feasible. Sea turtles must be handled, and bycatch mitigation gear must be used, in accordance with the careful release protocols and handling/release guidelines specified in paragraph (a)(3) of this section, and in accordance with the onboard handling and resuscitation requirements specified in § 223.206(d)(1)of this title.

* * * * *

(C) * * *

(*1*) Non-boated turtles should be brought close to the boat and provided with time to calm down. Then, it must be determined whether or not the hook can be removed without causing further injury. A front flipper or flippers of the turtle must be secured with an approved turtle control device from the list specified in paragraph (c)(2)(v)(D) of this section. All externally embedded hooks must be removed, unless hook removal would result in further injury to the turtle. No attempt should be made to remove a hook if it has been swallowed, or if it is determined that removal would result in further injury. If the hook cannot be removed and/or if the animal is entangled, as much line as

possible must be removed prior to release, using a line cutter as required by paragraph (c)(5)(i) of this section. If the hook can be removed, it must be removed using a long-handled dehooker as required by paragraph (c)(5)(i) of this section. Without causing further injury, as much gear as possible must be removed from the turtle prior to its release. Refer to the careful release protocols and handling/release guidelines required in paragraph (a)(3) of this section, and the handling and resuscitation requirements specified in § 223.206(d)(1) of this title for additional information.

* * * * *

(iii) * * *

(C) * * *

(*3*) If green-stick gear, as defined at § 635.2, is onboard, a vessel may possess up to 20 J-hooks. J-hooks may be used only with green-stick gear, and no more than 10 hooks may be used at one time with each green-stick gear. If green-stick gear is onboard, artificial bait may be possessed, but used only with green-stick gear.

* * * * *

(e) * * *

(1) * * *

(ii) *Charter/Headboat.* Rod and reel (including downriggers), bandit gear, handline, and green-stick gear are authorized for all recreational and commercial Atlantic tuna fisheries. Harpoon gear is authorized for commercial Atlantic tuna fisheries on non-for-hire trips only. Speargun is authorized for recreational Atlantic BAYS tuna fisheries only.

(iii) *General.* Rod and reel (including downriggers), handline, harpoon, bandit gear, and green-stick.

* * * * *

(V) *Longline.* Longline and green-stick.

* * * * *

(g) *Green-stick gear.* Green-stick gear may only be utilized when fishing from vessels issued a valid Atlantic Tunas General, HMS Charter/Headboat, or Atlantic Tunas Longline category permit. The gear must be attached to the vessel, actively trolled with the mainline at or above the water's surface, and may not be deployed with more than 10 hooks or gangions attached.

6. In § 635.71, paragraph (a)(23) is revised to read as follows:

**§ 635.71 Prohibitions.**

* * * * *

(a) * * *

(23) Fail to comply with the restrictions on use of pelagic longline, bottom longline, gillnet, buoy gear, speargun gear, green-stick gear, or harpoon gear as specified in § 635.21(c), (d), (e)(1), (e)(3), (e)(4), (f), or (g).

* * * * *

[FR Doc. E8–9888 Filed 5–5–08; 8:45 am]

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## DEPARTMENT OF COMMERCE

### National Oceanic and Atmospheric Administration

### 50 CFR Part 648

**[Docket No. 080428607–8609–01]**

**RIN 0648–AW69**

## Magnuson-Stevens Fishery Conservation and Management Act Provisions; Fisheries of the Northeastern United States; Northeast Multispecies Fishery; Allocation of Trips to Closed Area II Yellowtail Flounder Special Access Program

**AGENCY:** National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

**ACTION:** Proposed rule; request for comments.

**SUMMARY:** NMFS proposes to allocate zero trips in the Closed Area (CA) II Yellowtail Flounder Special Access Program (SAP) during the 2008 fishing year (FY) (i.e., May 1, 2008, through April 30, 2009). This action is based on a determination that the available catch of Georges Bank (GB) yellowtail flounder is insufficient to support a minimum level of fishing activity within the CA II Yellowtail Flounder SAP for FY 2008. The intent of this action is to help achieve optimum yield (OY) in the fishery by maximizing the utility of available GB yellowtail flounder TAC throughout FY 2008.

**DATES:** Comments must be received on or before 5 p.m., local time, May 21, 2008.

**ADDRESSES:** You may submit comments, identified by 0648–AW69, by any one of the following methods:

- Electronic Submissions: Submit all electronic public comments via the Federal eRulemaking Portal *http://www.regulations.gov*
- Fax: 978–281–9341, attn: Douglas Potts, Fishery Management Specialist.
- Mail: Written comments (paper, disk, or CD-ROM) should be sent to Patricia A. Kurkul, Regional Administrator, 1 Blackburn Drive, Gloucester, MA 01930. Mark the outside of the envelope, ''Comments on CA II YT SAP, 0648–AW69.''

Instructions: All comments received are a part of the public record and will generally be posted to *http://www.regulations.gov* without change. All Personal Identifying Information (for example, name, address, etc.) voluntarily submitted by the commenter may be publicly accessible. Do not submit Confidential Business Information or otherwise sensitive or protected information.

NMFS will accept anonymous comments. Attachments to electronic comments will be accepted in Microsoft Word, Excel, WordPerfect, or Adobe PDF file formats only.

**SUPPLEMENTARY INFORMATION:** The final rule implementing Framework Adjustment (FW) 40B (70 FR 31323; June 1, 2005), authorized the Administrator, Northeast Region, NMFS (Regional Administrator) to determine the allocation of the total number of trips into the CA II Yellowtail Flounder SAP based upon several criteria, including: GB yellowtail flounder total allowable catch (TAC) level, as established through the U.S./Canada Resource Sharing Understanding; and the amount of GB yellowtail flounder caught outside of the SAP. A formula was developed in FW 40B to assist the Regional Administrator in determining the appropriate number of trips for this SAP on a yearly basis. The formula is intended to allow the SAP to be adjusted for changing stock conditions to help achieve OY for GB yellowtail flounder.

FW 40B authorizes the allocation of zero trips to this SAP if the available GB yellowtail flounder catch (GB yellowtail flounder TAC projected catch of GB yellowtail flounder outside the SAP) is not sufficient to support 150 trips with a 15,000–lb (6,804–kg) trip limit (i.e., if the available GB yellowtail catch is less than 1,021 mt), as required. The U.S./Canada GB yellowtail flounder TAC for 2008, as recommended by the Transboundary Management Guidance Committee and the Council, is 1,950 mt (73 FR 16571; March 28, 2008). During FY 2007, vessels fishing outside of the SAP landed over 901 mt, 100 percent of the U.S./Canada GB yellowtail flounder TAC. However, this number does not reflect the potential catch outside of this SAP as the FY 2007 TAC of GB yellowtail flounder was caught by January 24, 2008, and possession was prohibited in the U.S./Canada Management Area for the remainder of the fishing year. The total catch of GB yellowtail flounder outside of this SAP in FY 2006 was 1,851 mt, 89 percent of the U.S./Canada GB yellowtail flounder TAC for that year. Using an average of these two years as a more realistic approximation of potential catch of GB

yellowtail flounder by all vessels outside of the SAP in FY 2008, there would be insufficient available catch to allocate to this SAP (1,950 mt 1,376 mt <1,021 mt) in FY 2008. Therefore, zero trips should be allocated to the CA II Yellowtail Flounder SAP for FY 2008.

**Classification**

Pursuant to section 304 (b)(1)(A) of the Magnuson-Stevens Act, the Assistant Administrator for Fisheries has determined that this proposed rule is consistent with the NE Multispecies FMP, other provisions of the Magnuson-Stevens Act, and other applicable law, subject to further consideration after public comment.

This proposed rule is exempt from review under EO 12866.

The Chief Counsel for Regulation of the Department of Commerce certified to the Chief Counsel for Advocacy of the Small Business Administration (SBA) that this proposed rule, if adopted, would not have a significant economic impact on a substantial number of small entities. As a result, an initial regulatory flexibility analysis is not required and none has been prepared.

The SBA size standard for small commercial fishing entities is $ 4.0 million in gross receipts. Individuals that would be impacted by this proposed action include all limited access NE multispecies day-at-sea permit holders. All commercial fishing entities affected by this proposed rule would fall under the SBA size standard for small commercial fishing entities and there would be no disproportionate impacts between small and large entities. The proposed action would affect a substantial number of small entities, as approximately 66 percent of the vessels affected by this action (i.e., 100 out of 150) had participated in the CA II Yellowtail Flounder SAP when it was open during FY 2004. However, the proposed action will not significantly reduce profit for affected vessels.

The proposed allocation of zero trips into the SAP would help ensure that the GB yellowtail flounder TAC is available throughout the fishing year, minimizing the impacts of depressed prices that could otherwise be caused by temporary floods of yellowtail flounder on the market, and therefore would help avoid the premature closing of the Eastern U.S./Canada Area due to catching the available GB yellowtail flounder TAC. This would enable vessels greater opportunity to fully harvest the available GB cod and GB haddock TAC allocated to the Eastern U.S./Canada Area and to achieve the full economic benefit from the U.S./Canada Management Area by more efficiently using the small GB yellowtail flounder TAC. Analysis prepared for FW 40B indicates that flexibility for vessels to target species other than yellowtail flounder is seen as critical to maintaining the profitability of vessel operations within the U.S./Canada Management Area, including the SAP, given the costs associated with fishing far offshore. Because the proposed action would maintain access to the Eastern U.S./Canada Area throughout the fishing year, this action attempts to preserve the flexibility for vessels to operate in an efficient and cost-effective manner that would maximize the profitability of vessel operations. Since the SAP was closed to fishing for FY 2007, there would be no change in profitability to individual vessels (compared to last year) resulting from the proposed zero allocation, thus, no economic impact to affected small harvesters.

Two alternatives were considered for FY 2008: The proposed allocation of zero trips into the SAP and the no action alternative. The no action alternative would mean the default measures in the regulations become effective, allowing one trip per month per vessel with a yellowtail flounder trip limit of 10,000 lb (4,536 kg) per trip. Although the no action alternative would provide some additional fishing opportunity in the short term, the no action alternative is not a reasonable alternative because it is inconsistent with the trip allocation formula as specified in the FMP and would likely lead to the premature harvest of the GB yellowtail flounder TAC and the closure of the Eastern U.S./Canada Management Area as previously described. Such a closure would prevent vessels from fully harvesting the available GB cod and GB haddock TAC allocated to the Eastern U.S./Canada Area . As such, the no action alternative would likely provide less economic benefits to the industry in the long term than the proposed alternative.

This proposed rule does not contain any new, nor revised existing reporting, recordkeeping, and other compliance requirements.

**Authority:** 16 U.S.C. 1801 *et seq.*

Dated: April 30, 2008.

**Samuel D. Rauch III,**

*Deputy Assistant Administrator For Regulatory Programs, National Marine Fisheries Service.*

[FR Doc. E8–9970 Filed 5–5–08; 8:45 am]

BILLING CODE 3510–22–S

# Notices

Federal Register

Vol. 73, No. 88

Tuesday, May 6, 2008

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.

## COMMISSION ON CIVIL RIGHTS

### Agenda and Notice of Public Meeting of the Tennessee Advisory Committee

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 planning meeting of the Tennessee Advisory Committee to the Commission will convene at 1 p.m. and adjourn at 4 p.m. on Monday, June 9, 2008, at the Hamilton County Commissioner Conference Room, 25 Georgia Avenue, Chattanooga, Tennessee. The purpose of the meeting is to receive a briefing on fair housing enforcement in Tennessee and discuss the Committee's project on fair housing enforcement.

Members of the public are entitled to submit written comments; the comments must be received in the regional office by May 31, 2008. The address is 61 Forsyth St., SW., Suite 18T40, Atlanta, Georgia, 30303. Persons wishing to e-mail comments may do so to *pminarik@usccr.gov.* Persons who desire additional information should contact Dr. Peter Minarik, Regional Director, at (404) 562–7000 or 800–877–8339 for individuals who are deaf, hearing impaired, and/or have speech disabilities or by e-mail to *pminarik@usccr.gov.*

Hearing-impaired persons who will attend the meeting and require the services of a sign language interpreter should contact the Regional Office at least ten (10) working days before the scheduled date of the meeting.

Records generated from this meeting may be inspected and reproduced at the Southern Regional Office, as they become available, both before and after the meeting. Persons interested in the work of this advisory committee are advised to go to the Commission's Web site, *http://www.usccr.gov*, or to contact the Southern Regional Office at the above e-mail or street address. The meeting will be conducted pursuant to the provisions of the rules and regulations of the Commission and FACA.

Dated in Washington, DC, May 1, 2008.

**Christopher Byrnes,**

*Chief, Regional Programs Coordination Unit.*

[FR Doc. E8–9924 Filed 5–5–08; 8:45 am]

BILLING CODE 6335–01–P

## DEPARTMENT OF COMMERCE

### Submission for OMB Review; Comment Request

The Department of Commerce will submit to the Office of Management and Budget (OMB) for clearance the following proposal for collection of information under the provisions of the Paperwork Reduction Act (44 U.S.C. chapter 35).

*Agency:* U.S. Census Bureau.

*Title:* Survey of Construction, Questionnaire for Building Permit Official.

*Form Number(s):* SOC-QBPO.

*OMB Control Number:* 0607–0125.

*Type of Request:* Revision of a currently approved collection.

*Burden Hours:* 225.

*Number of Respondents:* 900.

*Average Hours per Response:* 15 minutes.

*Needs and Uses:* The information collected on the SOC-QBPO is necessary to carry out the sampling for the Survey of Housing Starts, Sales and Completions (OMB Control No. 0607–0110), also known as the Survey of Construction (SOC). Government agencies and private companies use statistics from SOC to monitor and evaluate the large and dynamic housing construction industry.

The Census Bureau field representatives (FRs) use the SOC-QBPO to obtain information on the operating procedures of a permit office. This enables them to locate, classify, list, and sample building permits for residential construction. These permits are used as the basis for the sample selected for SOC. The Manufacturing and Construction Division (MCD), within the Census Bureau, also uses the information to verify and update the geographic coverage of permit offices.

The failure to collect this information would make it difficult, if not impossible, to accurately classify and sample building permits for the SOC. The SOC produces data for two principal economic indicators: New Residential Construction (housing starts and housing completions) and New Residential Sales. Information from the SOC is also used in the estimation of the value of new residential construction put in place for the Census Bureau's data on construction spending.

The Census Bureau is requesting a revision of the currently approved collection. The SOC-QBPO is an electronic questionnaire. Census Bureau FRs use Computer Assisted Personal Interviewing (CAPI) to collect the data. The CAPI software for all SOC data collection is being rewritten and modernized to work on laptop computers with the Microsoft Windows operating system. As part of this revision, the Census Bureau identified improvements to the SOC-QBPO questionnaire, including eliminating questions that are no longer necessary and adding new data items to improve the sampling for the Survey of Construction.

*Affected Public:* State, local or tribal government.

*Frequency:* Annually.

*Respondent's Obligation:* Voluntary.

*Legal Authority:* Title 13, United States Code, Section 182.

*OMB Desk Officer:* Brian Harris-Kojetin, (202) 395–7314.

Copies of the above information collection proposal can be obtained by calling or writing Diana Hynek, Departmental Paperwork Clearance Officer, (202) 482–0266, Department of Commerce, Room 6625, 14th and Constitution Avenue, NW., Washington, DC 20230 (or via the Internet at *dhynek@doc.gov*).

Written comments and recommendations for the proposed information collection should be sent within 30 days of publication of this notice to Brian Harris-Kojetin,OMB Desk Officer either by fax (202–395–7245) or e-mail (*bharrisk@omb.eop.gov*).

Dated: May 1, 2008.

**Gwellnar Banks,**

*Management Analyst, Office of the Chief Information Officer.*

[FR Doc. E8–9933 Filed 5–5–08; 8:45 am]

BILLING CODE 3510–07–P

## DEPARTMENT OF COMMERCE

### Submission for OMB Review; Comment Request

The Department of Commerce will submit to the Office of Management and Budget (OMB) for clearance the following proposal for collection of information under the provisions of the Paperwork Reduction Act (44 U.S.C. Chapter 35).

*Agency:* Office of the Secretary (Office of Policy and Strategic Planning).

*Title:* Faith-Based and Community Initiatives Toolkit Web site Evaluation Survey.

*Form Number(s):* None.

*OMB Control Number:* None.

*Type of Request:* Regular submission.

*Burden Hours:* 33.

*Number of Respondents:* 400

*Average Hours per Response:* 5 minutes.

*Needs and Uses:* The U.S. Department of Commerce's (DOC) Center for Faith-Based and Community Initiatives (CFBCI) is one of eleven similar centers located in various Federal agencies. The Faith-Based and Community Initiative focuses on expanding partnerships with non-profit sector partners and soliciting private sector co-investors to help America's communities in need.

In an effort to support non-profit organizations with submitting quality government grant applications, the U.S. Census Bureau developed an online toolkit to assist applicants with obtaining Census information for grant writing and community needs assessment. Census is the leading source of quality data about our nation's people and economy. Census data drives key elements of grant applications and grant proposals are strengthened by good supportive data which demonstrates a need within a community.

DOC would like to conduct a study to evaluate the effectiveness of the Faith-Based and Community Initiatives toolkit Web site and, specifically the ''Additional Resources'' link.

The users of the Web site will have the option to complete a survey of their experience of using the Web site. The findings from the study will be used to help make informed decisions about users' expectations and needed improvements to the Web site.

*Affected Public:* Individuals or households.

*Frequency:* On occasion.

*Respondent's Obligation:* Voluntary.

*OMB Desk Officer:* David Rostker, (202) 395–3897.

Copies of the above information collection proposal can be obtained by calling or writing Diana Hynek, Departmental Paperwork Clearance Officer, (202) 482–0266, Department of Commerce, Room 6625, 14th and Constitution Avenue, NW., Washington, DC 20230 (or via the Internet at *dHynek@doc.gov*).

Written comments and recommendations for the proposed information collection should be sent within 30 days of publication of this notice to David Rostker, OMB Desk Officer,FAX number (202) 395–7285 or via the Internet at *David_Rostker@omb.eop.gov*.

Dated: May 1, 2008.

**Gwellnar Banks,**

*Management Analyst, Office of the Chief Information Officer.*

[FR Doc. E8–9934 Filed 5–5–08; 8:45 am]

BILLING CODE 3510–EC–P

## DEPARTMENT OF COMMERCE

### Foreign–Trade Zones Board

#### Order No. 1551

### Grant of Authority; Establishment of a Foreign–Trade Zone, West Memphis, Arkansas

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 adopts the following Order:

WHEREAS, the Foreign–Trade Zones 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 City of West Memphis, Arkansas Public Facilities Board (the Grantee), an Arkansas public board, has made application to the Board (FTZ Docket 11–2007, filed 3/14/07), requesting the establishment of a foreign–trade zone at a site in West Memphis, Arkansas, adjacent to the Memphis Customs and Border Protection port of entry;

WHEREAS, notice inviting public comment has been given in the **Federal Register** (72 FR 13743, 3/23/07); and,

WHEREAS, the Board adopts the findings and recommendations of the examiner's report, and finds that the requirements of the FTZ Act and the Board's regulations are satisfied, and that approval of the application is in the public interest;

NOW, THEREFORE, the Board hereby grants to the Grantee the privilege of establishing a foreign–trade zone, designated on the records of the Board as Foreign–Trade Zone No. 273, at the site described in the application, and subject to the Act and the Board's regulations, including Section 400.28.

Signed at Washington, DC, this 15th day of April 2008.

*FOREIGN–TRADE ZONES BOARD*

**Carols M. Gutierrez,**

*Secretary of Commerce Chairman and Executive Officer.*

Attest:

**Andrew McGilvray,**

*Executive Secretary.*

[FR Doc. E8–9976 Filed 5–5–08; 8:45 am]

BILLING CODE 3510–DS–S

## DEPARTMENT OF COMMERCE

### Foreign–Trade Zones Board

#### Order No. 1555

### Expansion of Foreign–Trade Zone 134, Chattanooga, Tennessee

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 Chattanooga Chamber Foundation, grantee of Foreign–Trade Zone 134, submitted an application to the Board for authority to expand its zone to include ten additional sites (5,277.37 acres total) located at the Enterprise South Industrial Park in Chattanooga (Site 3 – 3,133 acres), at the JIT Warehousing and Distribution Complex in Chattanooga (Site 4 – 13.7 acres), within the Bonny Oaks Industrial and Office Park in Chattanooga (Site 5 – 51.4 acres), at the Kenco–Polymer Warehouse Complex in Chattanooga (Site 6 – 16 acres), within the North Industrial Park in McMinnville (Site 7 – 46.62 acres), within the Mountain View Industrial Park in Morrison (Site – - 1,279.87 acres), at the Nickajack Port and Industrial Park in New Hope (Site 9 – 522.83 acres), at the Hiwassee River Industrial Park in Charleston (Site 10 – 121.15 acres), within the Cleveland/Bradley Industrial Park in Cleveland (Site 11 – 87 acres), and within the Pike Hill Industrial Center in McMinnville (Site 12 – 5.8 acres), within and adjacent to the Chattanooga Customs and Border Protection port of entry (FTZ Docket 7–2007, filed 2/28/07);

WHEREAS, notice inviting public comment was given in the **Federal Register** (72 FR 10980, 3/12/07) 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 report, and finds that the requirements of the FTZ Act and Board's regulations are satisfied, and that the proposal is in the public interest;

NOW, THEREFORE, the Board hereby orders:

The application to expand FTZ 134 is approved, subject to the FTZ Act and the Board's regulations, including Section 400.28, subject to the Board's 2,000–acre activation limit for the overall general–purpose zone project, and further subject to an initial five–year time limit (to April 30, 2013) for Sites 4, 5, 6, 7, 8 and 12 with extension available upon review.

Signed at Washington, DC, this 18th day of April 2008.

**David M. Spooner,**

*Assistant Secretary of Commerce for Import Administration,Alternate Chairman Foreign–Trade Zones Board.*

Attest:

**Andrew McGilvray,**

*Executive Secretary.*

[FR Doc. E8–9972 Filed 5–5–08; 8:45 am]

BILLING CODE 3510–DS–S

## DEPARTMENT OF COMMERCE

## Foreign–Trade Zones Board

### Order No. 1558

### Expansion of FTZ 44 and Expansion of Scope of Manufacturing, Mt. Olive, New Jersey

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 New Jersey Commerce, Economic Growth & Tourism Commission, grantee of FTZ 44, submitted an application to the Board for authority to clarify the boundaries of Site 1 and to incorporate an additional 0.5 acres on a permanent basis, to delete two acres from Site 2, to include four additional sites in the Mt. Olive, New Jersey, area and to expand the scope of manufacturing authority for the flavor and fragrance processing facility of Givaudan Fragrances Corporation, located in Site 1 within FTZ 44 in Mt. Olive, New Jersey, area, adjacent to the Newark/New York CBP port of entry (FTZ Docket 25–2007, filed 7/20/07);

*Whereas*, notice inviting public comment was given in the **Federal Register** (72 FR 41704, 7/31/07) 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 report, and finds that the requirements of the FTZ Act and Board's regulations are satisfied, and that the proposal is in the public interest;

*Now, therefore*, the Board hereby orders:

The application to expand FTZ 44 and to expand the scope of manufacturing authority for Givaudan Fragrances Corporation is approved, subject to the FTZ Act and the Board's regulations, including Section 400.28, and further subject to a sunset provision that would terminate authority on April 30, 2013, for Sites 3, 4, and 6 and April 30, 2015 for Site 5, where no activity has occurred under FTZ procedures before those dates. The Secretary of Commerce, as Chairman of the Board, is hereby authorized to issue an appropriate Board Order.

Signed at Washington, DC, this 28th day of April 2008.

**David M. Spooner,**

*Assistant Secretary of Commerce for Import Administration, Alternate Chairman, Foreign–Trade Zones Board.*

Attest:

**Andrew McGilvray,**

*Executive Secretary.*

[FR Doc. E8–9985 Filed 5–5–08; 8:45 am]

BILLING CODE 3510–DS–S

## DEPARTMENT OF COMMERCE

## Foreign–Trade Zones Board

### Order No. 1556

### Grant of Authority for Subzone Status, Mastex Industries, Inc. (Airbag Fabric for Export), Holyoke, 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 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 special–purpose subzones when existing zone facilities cannot serve the specific use involved, and when the activity results in a significant public benefit and is in the public interest;

*Whereas*, the Holyoke Economic Development and Industrial Corporation, grantee of Foreign–Trade Zone 201, has made application to the Board for authority to establish a special–purpose subzone for the manufacture of airbag fabric for export only at the facility of Mastex Industries, Inc., located in Holyoke, Massachusetts (FTZ Docket 39–2007, filed 8–16–07);

*Whereas*, notice inviting public comment was given in the **Federal Register** (72 FR 48613, 8/24/07); and,

*Whereas*, the Board adopts the findings and recommendations of the examiner's report, and finds that the requirements of the FTZ Act and the Board's regulations are satisfied, and that approval of the application is in the public interest;

*Now, therefore*, the Board hereby grants authority for subzone status for activity related to export–only airbag fabric manufacturing at the facility of Mastex Industries, Inc., located in Holyoke, Massachusetts (Subzone 201B), as described in the application and **Federal Register** notice, and subject to the FTZ Act and the Board's regulations, including Section 400.28.

Signed at Washington, DC, this 28th day of April 2008.

**David M. Spooner,**

*Assistant Secretary of Commerce for Import Administration, Alternate Chairman, Foreign–Trade Zones Board.*

Attest:

**Andrew McGilvray,**

*Executive Secretary.*

[FR Doc. E8–9979 Filed 5–5–08; 8:45 am]

BILLING CODE 3510–DS–S

## DEPARTMENT OF COMMERCE

## Foreign–Trade Zones Board

### Order No. 1557

### Grant of Authority for Subzone Status, Souriau USA (Aerospace, Industrial and R/F Connectors), York, Pennsylvania

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 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 special–purpose subzones when existing zone facilities cannot serve the specific use involved, and when the activity results in a significant public benefit and is in the public interest;

*Whereas*, the FTZ Corp of Southern Pennsylvania, grantee of Foreign–Trade Zone 147, has made application to the Board for authority to establish a special–purpose subzone for the manufacture of aerospace, industrial and R/F connectors at the facility of Souriau USA, located in York, Pennsylvania (FTZ Docket 33–2007, filed 8–3–07);

*Whereas*, notice inviting public comment was given in the **Federal Register** (72 FR 45221, 8/13/07); and,

*Whereas*, the Board adopts the findings and recommendations of the examiner's report, and finds that the requirements of the FTZ Act and the Board's regulations are satisfied, and that approval of the application is in the public interest;

*Now, therefore*, the Board hereby grants authority for subzone status for activity related to aerospace, industrial and R/F connector manufacturing at the facility of Souriau USA, located in York, Pennsylvania (Subzone 147B), as described in the application and **Federal Register** notice, and subject to the FTZ Act and the Board's regulations, including Section 400.28.

Signed at Washington, DC, this 28th day of April 2008.

**David M. Spooner,**

*Assistant Secretary of Commerce for Import Administration, Alternate Chairman, Foreign–Trade Zones Board.*

Attest:

**Andrew McGilvray,**

*Executive Secretary.*

[FR Doc. E8–9983 Filed 5–5–08; 8:45 am]

BILLING CODE 3510–DS–S

## DEPARTMENT OF COMMERCE

### International Trade Administration

### U.S. Travel and Tourism Advisory Board: Meeting of the U.S. Travel and Tourism Advisory Board

**AGENCY:** International Trade Administration, U.S. Department of Commerce.

**ACTION:** Notice of an open meeting.

**SUMMARY:** The U.S. Travel and Tourism Advisory Board (Board) will hold a meeting to discuss topics related to the travel and tourism industry. The Board was re-chartered on September 21, 2007, to advise the Secretary of Commerce on matters relating to the travel and tourism industry.

**DATES:** May 20, 2008.

*Time:* 10 a.m. EST.

**ADDRESSES:** Department of Commerce, 1401 Constitution Avenue, NW., Room 4830, Washington, DC, 20230. Because of building security, all non-government attendees must pre-register. This program will be physically accessible to people with disabilities. Seating is limited and will be on a first come, first served basis. Requests for sign language interpretation, other auxiliary aids, or pre-registration, should be submitted no later than May 13, 2008, to Kate Worthington, U.S. Travel and Tourism Advisory Board, Room 4043, 1401 Constitution Avenue, NW., Washington, DC, 20230, telephone 202–482–4501, *Kate.Worthington@mail.doc.gov.*

**FOR FURTHER INFORMATION CONTACT:** Kate Worthington, U.S. Travel and Tourism Advisory Board, Room 4043, 1401 Constitution Avenue, NW., Washington, DC, 20230, telephone: 202–482–4501, e-mail: *Kate.Worthington@mail.doc.gov.*

Dated: April 30, 2008.

**Kate Worthington,**

*Executive Secretary, U.S. Travel and Tourism Advisory Board.*

[FR Doc. 08–1212 Filed 4–30–08; 3:40 pm]

BILLING CODE 3510–DR–P

## DEPARTMENT OF COMMERCE

### International Trade Administration

**A–557–813**

### Polyethylene Retail Carrier Bags from Malaysia: Notice of Partial Rescission of the Administrative Review and Intent to Rescind the Administrative Review

**AGENCY:** Import Administration, International Trade Administration, Department of Commerce.

**SUMMARY:** In response to requests by interested parties, the Department of Commerce (Department) initiated an administrative review of the antidumping duty order on polyethylene retail carrier bags (PRCBs) from Malaysia with respect to three producers/exporters of the subject merchandise. The period of review (POR) is August 1, 2006, through July 31, 2007.

The Department is rescinding this administrative review in part with respect to one company. In addition, the Department has preliminarily determined that there were no entries of subject merchandise from the two remaining companies during the POR to review and, therefore, intends to rescind the administrative review in its entirety. Interested parties are invited to comment on this intent to rescind the administrative review.

**EFFECTIVE DATE:** May 6, 2008.

**FOR FURTHER INFORMATION:** Lyn Johnson or Richard Rimlinger, AD/CVD Operations, Office 5, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue, NW, Washington, DC 20230; telephone: (202) 482–5287 and (202) 482–4477, respectively.

**SUPPLEMENTARY INFORMATION:**

#### Background

On August 2, 2007, the Department published a notice of opportunity to request an administrative review of PRCBs from Malaysia for the period August 1, 2006, through July 31, 2007. See *Antidumping or Countervailing Duty Order, Finding, or Suspended Investigation; Opportunity to Request Administrative Review*, 72 FR 42383 (August 2, 2007). On August 31, 2007, interested parties requested an administrative review in accordance with 19 CFR 351.213(b)(1). The review requests were as follows: (1) The Polyethylene Retail Carrier Bag Committee and its individual members, Hilex Poly Co., LLC and Superbag Corporation (Petitioners) requested a review of Euro Plastics Malaysia Sdn. Bhd. and its affiliate Eplastics Procurement Center Sdn. Bhd. (Euro Plastics); (2) Zhin Hin Plastic Manufacturer Sdn. Bhd. (also known as Chin Hin Plastic Manufacture) (Zhin Hin) requested a review of itself; (3) King Pac Industrial Co., Ltd. (King Pac) requested a review of itself. On September 25, 2007, the Department initiated administrative reviews of Euro Plastics, Zhin Hin, and King Pac. See *Initiation of Antidumping and Countervailing Duty Administrative*

*Reviews and Requests for Revocation in Part*, 72 FR 54428 (September 25, 2007).

**Scope of the Order**

The merchandise subject to this antidumping duty order is PRCBs which may be referred to as t–shirt sacks, merchandise bags, grocery bags, or checkout bags. The subject merchandise is defined as non–sealable sacks and bags with handles (including drawstrings), without zippers or integral extruded closures, with or without gussets, with or without printing, of polyethylene film having a thickness no greater than 0.035 inch (0.889 mm) and no less than 0.00035 inch (0.00889 mm), and with no length or width shorter than 6 inches (15.24 cm) or longer than 40 inches (101.6 cm). The depth of the bag may be shorter than 6 inches (15.24 cm) but not longer than 40 inches (101.6 cm).

PRCBs are typically provided without any consumer packaging and free of charge by retail establishments, *e.g.*, grocery, drug, convenience, department, specialty retail, discount stores, and restaurants, to their customers to package and carry their purchased products. The scope of the order excludes (1) polyethylene bags that are not printed with logos or store names and that are closeable with drawstrings made of polyethylene film and (2) polyethylene bags that are packed in consumer packaging with printing that refers to specific end–uses other than packaging and carrying merchandise from retail establishments, *e.g.*, garbage bags, lawn bags, trash–can liners.

Imports of the subject merchandise are currently classifiable under statistical category 3923.21.0085 of the Harmonized Tariff Schedule of the United States (HTSUS). Furthermore, although the HTSUS subheading is provided for convenience and customs purposes, the written description of the scope of this order is dispositive.

**Rescission in Part**

On October 4, 2007, we received a timely withdrawal of the request for review of King Pac. King Pac informed us that its request was intended for the order on PRCBs from Thailand instead of Malaysia. In accordance with 19 CFR 351.213(d)(1), the Department will rescind an administrative review ''if a party that requested the review withdraws the request within 90 days of the date of publication of notice of initiation of the requested review.'' Therefore, because King Pac withdrew its request within the 90-day time limit and there were no other requests to review King Pac, we are rescinding the review in part with respect to King Pac.

**Intent to Rescind**

On October 22, 2007, in response to the Department's quantity and value questionnaire, Euro Plastics reported that it did not ship to the United States during the POR. We examined U.S. Customs and Border Protection (CBP) data and did not find entries of subject merchandise from Euro Plastics during the POR. See the April 25, 2008, memorandum to The File entitled ''Polyethylene Retail Carrier Bags from Malaysia - Customs Data for Entries during the period August 1, 2006, through July 31, 2007.''

On October 22, 2007, in response to the Department's quantity and value questionnaire, Zhin Hin reported that it had shipments to the United States during the POR. Accordingly, we issued an antidumping duty questionnaire to Zhin Hin on November 26, 2007. On November 29, 2007, Zhin Hin provided CBP documentation to support its claim that it had shipments to the United States during the POR. Upon reviewing the CBP documentation provided in Zhin Hin's November 29, 2007, letter and January 9, 2008, questionnaire response, we found that Zhin Hin relied on the ''import date,'' which fell within the POR, as the relevant date to support its request for review. It is the Department's practice, however, to consider the ''entry date'' as the determinative date for purposes of whether an entry falls within a POR. In this case, we found that the CBP documentation which Zhin Hin submitted also showed an ''entry summary date'' which fell outside of the POR. We examined additional CBP data and tied the entry from the CBP documentation Zhin Hin submitted to the additional CBP data by the entry number. The additional CBP data showed that this entry had an ''entry date'' which occurred outside the POR. Based on this information, we concluded that there were no entries of subject merchandise from Zhin Hin during the POR. *Id*.

Section 751(a)(2) of the Tariff Act of 1930, as amended (the Act), instructs the Department that, when conducting an administrative review, it is to determine the dumping margin for entries during the relevant period. Further, according to 19 CFR 351.213(d)(3), the Department may rescind an administrative review in whole or only with respect to a particular exporter or producer if it concludes that, during the POR, there were no entries, exports, or sales of the subject merchandise, as the case may be. The Department has interpreted the statutory and regulatory language as requiring ''that there be entries during the period of review upon which to assess antidumping duties.'' See *Granular Polytetrafluoroethylene Resin from Japan: Notice of Rescission of Antidumping Duty Administrative Review*, 70 FR 44088 (August 1, 2005). In *Allegheny Ludlum Corp. v. United States*, 346 F.3d 1368, 1372 (CAFC 2003), the Court of Appeals for the Federal Circuit upheld the Department's practice of rescinding annual reviews when there are no entries of subject merchandise during the POR. See also *Stainless Steel Plate in Coils from Taiwan: Final Rescission of Antidumping Duty Administrative Review*, 68 FR 63067, 63068 (November 7, 2003) (stating that ''the Department's interpretation of its statute and regulations, as affirmed by the Court of Appeals for the Federal Circuit, supports not conducting an administrative review when the evidence on the record indicates that respondents had no entries of subject merchandise during the POR'').

As explained above, we did not find entries of subject merchandise from Euro Plastics or Zhin Hin during the POR. Because we preliminarily find that Euro Plastics and Zin Hin had no entries of subject merchandise during the POR and these are the only remaining companies in this review, we intend to rescind the administrative review in its entirety. If we continue to find that there were no entries of subject merchandise from these companies after consideration of comments from interested parties, we will rescind the entire administrative review of PRCBs from Malaysia in accordance with 19 CFR 351.213(d)(3).

**Public Comment**

Any interested party may request a hearing within 30 days of the publication of this notice in the **Federal Register** in accordance with 19 CFR 351.310. If a hearing is requested, the Department will notify interested parties of the hearing schedule.

Interested parties are invited to comment on the intent to rescind the administrative review. The Department will consider case briefs filed by interested parties within 30 days after the date of publication of this notice in the **Federal Register**. Interested parties may file rebuttal briefs, limited to issues raised in the case briefs. The Department will consider rebuttal briefs filed not later than five days after the time limit for filing case briefs. Parties who submit arguments are requested to submit with each argument a statement of the issue, a brief summary of the argument, and a table of authorities

cited. Further, we request that parties submitting written comments provide the Department with a diskette containing an electronic copy of the public version of such comments. See, generally, 19 CFR 351.309(c) and (d).

This rescission in part and intent to rescind the administrative review are issued and published in accordance with sections 751(a)(1) and 777(i)(1) of the Act.

Dated: April 30, 2008.

**Stephen J. Claeys,**

*Deputy Assistant Secretary for Import Administration.*

[FR Doc. E8–9992 Filed 5–5–08; 8:45 am]

**BILLING CODE 3510–DS–S**

## DEPARTMENT OF COMMERCE

### International Trade Administration

**A–570–898**

### Chlorinated Isocyanurates from the People's Republic of China: Preliminary Results of Antidumping Duty Administrative Review

**AGENCY:** Import Administration, International Trade Administration, Department of Commerce.

**SUMMARY:** In response to requests from interested parties, the Department of Commerce (''the Department'') is conducting an administrative review of the antidumping duty order on chlorinated isocyanurates (''chlorinated isos'') from the People's Republic of China (''PRC''). The period of review (''POR'') for this administrative review is June 1, 2006, through May 31, 2007. This administrative review covers two producers/exporters of the subject merchandise.

We preliminarily determine that both respondents in this administrative review made sales in the United States at prices below normal value (''NV''). If these preliminary results are adopted in our final results of review, we will instruct U.S. Customs and Border Protection (''CBP'') to assess antidumping duties on entries of subject merchandise during the POR for which the importer–specific assessment rates are above *de minimis*.

We invite interested parties to comment on these preliminary results. Parties who submit comments are requested to submit with each argument a statement of the issue and a brief summary of the argument. We intend to issue the final results of this review no later than 120 days from the date of publication of this notice, pursuant to section 751(a)(3)(A) of the Tariff Act of 1930, as amended (''the Act'').

**EFFECTIVE DATE:** May 6, 2008.

**FOR FURTHER INFORMATION CONTACT:** Jennifer Moats or Charles Riggle, AD/CVD Operations, Office 8, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue, NW, Washington, DC 20230; telephone: (202) 482–5047 or (202) 482–0650, respectively.

**SUPPLEMENTARY INFORMATION:**

### Background

On June 24, 2005, the Department published in the **Federal Register** the antidumping duty order on chlorinated isos from the PRC.[1] On June 1, 2007, the Department published a notice of opportunity to request an administrative review of the antidumping duty order on chlorinated isos from the PRC for the period June 1, 2006, through May 31, 2007.[2] On June 28, 2007, in accordance with 19 CFR 351.213(b)(2), Nanning Chemical Industry Co. Ltd. (''Nanning''), a foreign producer/exporter of subject merchandise, requested that the Department review its sale(s) of subject merchandise. On June 29, 2007, in accordance with 19 CFR 351.213(b)(2), Hebei Jiheng Chemical Company Ltd. (''Jiheng''), a foreign producer/exporter of subject merchandise, requested that the Department review its sales of subject merchandise. On July 2, 2007, Clearon Corporation (''Clearon'') and Occidental Chemical Corporation (''OxyChem''), petitioners in the underlying investigation, and BioLab, Inc. (''BioLab''), a domestic producer of the like product, requested that the Department conduct an administrative review of Jiheng's sales and entries during the POR.

On July 26, 2007, the Department initiated the second administrative review of the antidumping duty order on chlorinated isos from the PRC.[3] On August 10, 2007, the Department issued its antidumping duty questionnaire to Jiheng and Nanning. On September 7, 2007, the Department requested that the Office of Policy provide a list of surrogate countries for this review.[4] On September 17, 2007, the Office of Policy issued its list of surrogate countries.[5]

On September 25, 2007, the Department issued a letter to interested parties seeking comments on surrogate country selection and surrogate values. On October 10, 2007, Jiheng submitted comments regarding the selection of a surrogate country. On October 22, 2007, Clearon and OxyChem (''Petitioners'') submitted rebuttal comments regarding surrogate country selection. On November 2, 2007, Jiheng and Nanning submitted publicly available information to value the factors of production (''FOP''). On November 13, 2007, Petitioners submitted rebuttal surrogate value comments. On February 13, 2008, Jiheng submitted rebuttal comments to Petitioners' surrogate value comments. On April 9, 2008, Jiheng submitted additional surrogate value information on electricity.

On September 7, 2007, Nanning submitted its section A questionnaire response (''Nanning AQR''). On September 10, 2007, Jiheng submitted its section A questionnaire response (''Jiheng AQR''). On October 2, 2007, Jiheng submitted its sections C and D questionnaire responses (''Jiheng CQR and Jiheng DQR'', respectively). On October 4, 2007, Nanning submitted its sections C and D questionnaire responses (''Nanning CQR and Nanning DQR'', respectively). On November 8, 2007, Petitioners submitted comments on Nanning's AQR, CQR, and DQR. On November 28, 2007, the Department issued supplemental questionnaires to Jiheng and Nanning. On December 20, 2007, Jiheng and Nanning submitted their supplemental questionnaire responses (''Jiheng 1st SQR and Nanning 1st SQR'', respectively).

On January 9, 2008, Department met with counsel for Jiheng to explain some concerns regarding Jiheng's FOP reporting methodology and claimed by products and to introduce questions that would be included in a second supplemental questionnaire issued to Jiheng. *See* January 17, 2008 Memorandum to The File regarding Meeting with Counsel of Hebei Jiheng Chemical Company, Ltd. On January 15, 2008, the Department issued a second supplemental questionnaire to Jiheng. On January 24, 2008, Petitioners submitted comments on Nanning's 1st SQR. On February 12, 2008, the Department issued a second supplemental questionnaire to Nanning. On February 20, 2008, Jiheng submitted

[1] *See Notice of Antidumping Duty Order: Chlorinated Isocyanurates From the People's Republic of China*, 70 FR 36561 (June 24, 2005).

[2] *See Antidumping or Countervailing Duty Order, Finding, or Suspended Investigation; Opportunity to Request Administrative Review*, 72 FR 30542 (June 1, 2007).

[3] *See Initiation of Antidumping and Countervailing Duty Administrative Reviews and Request for Revocation in Part*, 72 FR 41057 (July 26, 2007) (''Initiation Notice'').

[4] *See* Memorandum regarding ''Request for Surrogate-Country Selection: 2006-2007 Administrative Review of the Antidumping Duty Order on Chlorinated Isocyanurates from the People's Republic of China'' (September 7, 2007).

[5] *See* the Memorandum regarding ''Antidumping Duty Administrative Review of Chlorinated Isocyanurates from the People's Republic of China: Request for a List of Surrogate Countries'' (September 17, 2007) (''Surrogate Country List'').

its second supplemental questionnaire response (''Jiheng 2nd SQR''). On February 25, 2008, the Department published a notice in the **Federal Register** extending the time limit for the preliminary results of review until April 30, 2008.[6]

On March 5, 2008, Nanning submitted its second supplemental questionnaire response (''Nanning 2nd SQR''). On March 17, 2008, Petitioners submitted comments on Nanning 2nd SQR. On March 21, 2008, the Department issued a third supplemental questionnaire to Nanning. On April 1, 2008, Nanning submitted its third supplemental questionnaire response (''Nanning 3rd SQR''). On April 2, 2008, Department officials again met with counsel to Jiheng to introduce questions that would be included in a third supplemental questionnaire to Jiheng regarding Jiheng's reported FOPs and claimed by products. *See* April 4, 2008 Memorandum to The File regarding Meeting with Counsel of Hebei Jiheng Chemical Company, Ltd. On April 3, 2008, Petitioners submitted comments on Nanning's 3rd SQR. On April 4, 2008, the Department issued a third supplemental questionnaire to Jiheng. On April 16, 2008, Jiheng submitted its third supplemental questionnaire response (''Jiheng 3rd SQR'').

**Scope of the Order**

The products covered by this order are chlorinated isos, as described below:

Chlorinated isos are derivatives of cyanuric acid, described as chlorinated s–triazine triones. There are three primary chemical compositions of chlorinated isos: (1) trichloroisocyanuric acid ($Cl_3(NCO)_3$), (2) sodium dichloroisocyanurate (dihydrate) ($NaCl_2(NCO)_3(2H_2O)$, and (3) sodium dichloroisocyanurate (anhydrous) ($NaCl_2(NCO)_3$). Chlorinated isos are available in powder, granular, and tableted forms. This order covers all chlorinated isos. Chlorinated isos are currently classifiable under subheadings 2933.69.6015, 2933.69.6021, 2933.69.6050, 3808.40.50, 3808.50.40 and 3808.94.50.00 of the Harmonized Tariff Schedule of the United States (''HTSUS''). The tariff classification 2933.69.6015 covers sodium dichloroisocyanurates (anhydrous and dihydrate forms) and trichloroisocyanuric acid. The tariff classifications 2933.69.6021 and 2933.69.6050 represent basket categories that include chlorinated isos and other compounds including an unfused triazine ring. Although the HTSUS subheadings are provided for convenience and customs purposes, the written description of the scope of this order is dispositive.

**Non–Market Economy Country**

Jiheng and Nanning did not contest the Department's treatment of the PRC as a non–market economy (''NME''), and the Department has treated the PRC as an NME country in all past antidumping duty investigations and administrative reviews and continues to do so in this case.[7] No interested party in this case has argued that we should do otherwise. Designation as an NME country remains in effect until it is revoked by the Department. *See* Section 771(18)(C)(i) of the Act.

**Surrogate Country**

When the Department is investigating imports from an NME country, section 773(c)(1) of the Act directs it, in most instances, to base NV on the NME producer's FOPs. The Act further instructs that valuation of the FOPs shall be based on the best available information in the surrogate market economy country or countries considered to be appropriate by the Department. *See* section 773(c)(1) of the Act. When valuing the FOPs, the Department shall utilize, to the extent possible, the prices or costs of FOPs in one or more market economy countries that are: (1) at a level of economic development comparable to that of the NME country; and (2) significant producers of comparable merchandise. *See* section 773(c)(4) of the Act. Further, the Department normally values all FOPs in a single surrogate country. *See* 19 CFR 351.408(c)(2). The sources of the surrogate factor values are discussed under the ''Normal Value'' section below and in the Surrogate Value Memorandum, which is on file in the Central Records Unit (''CRU''), Room 1117 of the main Department building.[8]

In examining which country to select as its primary surrogate for this proceeding, the Department first determined that India, Indonesia, Sri Lanka, the Philippines, and Egypt are countries comparable to the PRC in terms of economic development. *See* Surrogate Country List, which is on file in the CRU. On September 25, 2007, the Department issued a request for interested parties to submit comments on surrogate country selection. On October 10, 2007, Jiheng submitted comments regarding the selection of a surrogate country. On October 22, 2007, Petitioners submitted rebuttal comments regarding surrogate country selection.

Jiheng argues that the Department should continue to use India as a surrogate country for this proceeding of chlorinated isos, as it has in previous proceedings, because India produces comparable merchandise and there are publicly available data with which to value the reported FOP information in this case. Petitioners argue that another surrogate country other than India should be considered because chlorinated isos is not manufactured in India and the level of production of the most comparable product, calcium hypochlorite, should be considered. Nanning did not provide any comments on the Department's selection of a surrogate country. All parties which submitted surrogate value data submitted Indian sourced data for the majority of their data.

After evaluating interested parties' comments, the Department determined that India is the appropriate surrogate country for use in this review. The Department based its decision on the following facts: (1) India is at a level of economic development comparable to that of the PRC; (2) India is a significant producer of comparable merchandise, *i.e.*, calcium hypochlorite; and (3) India provides the best opportunity to use quality, publicly available data to value the FOPs. On the record of this review, we have usable surrogate financial data from India, but no such surrogate financial data from any other potential surrogate country. Additionally, a vast majority of the data submitted by both the respondents and Petitioners for our consideration as potential surrogate values are sourced from India.

Therefore, because India best represents the experience of producers of comparable merchandise operating in a surrogate country, we have selected India as the surrogate country and, accordingly, have calculated NV using Indian prices to value the respondents' FOPs, when available and appropriate. *See* Surrogate Value Memorandum. We have obtained and relied upon publicly available information wherever possible.

In accordance with 19 CFR 351.301(c)(3)(ii), interested parties may submit publicly available information to

[6] *See Chlorinated Isocyanurates from the People's Republic of China: Extension of Time limit for Preliminary Results of Antidumping Duty Administration Review*, 73 FR 9990 (February 25, 2008).

[7] *See, e.g., Chlorinated Isocyanurates from the People's Republic of China: Final Results of Antidumping Duty Administrative Review*, 73 FR 159 (January 2, 2008); and *Folding Metal Tables and Chairs from the People's Republic of China: Final Results of Antidumping Duty Administrative Review*, 72 FR 71355 (December 17, 2007).

[8] *See* Memorandum regarding ''Preliminary Results of the 2006-2007 Administrative Review of Chlorinated Isocyanurates from the People's Republic of China: Surrogate Value Memorandum'' (April 29, 2008) (''Surrogate Value Memorandum'').

value FOPs until 20 days after the date of publication of the preliminary results.

**Separate Rates**

The Department has implemented an application process by which exporters and producers may obtain separate–rate status in NME administrative reviews. The process requires exporters and producers to submit a separate–rate status application. *See also Policy Bulletin 05.1: Separate–Rates Practice and Application of Combination Rates in Antidumping Investigations involving Non–Market Economy Countries*, (April 5, 2005) (''*Policy Bulletin 05.1*''), available at *http://ia.ita.doc.gov*.[9] However, the standard for eligibility for a separate rate (which is whether a firm can demonstrate an absence of both *de jure* and *de facto* government control over its export activities) has not changed.

In proceedings involving NME countries, the Department has a rebuttable presumption that all companies within the country are subject to government control and thus should be assessed a single antidumping duty rate. It is the Department's policy to assign all exporters of merchandise subject to review in an NME country this single rate unless an exporter can demonstrate that it is sufficiently independent so as to be entitled to a separate rate. Exporters can demonstrate this independence through the absence of both *de jure* and *de facto* government control over export activities. The Department analyzes each entity exporting the subject merchandise under a test arising from the *Notice of Final Determination of Sales at Less Than Fair Value: Sparklers from the People's Republic of China*, 56 FR 20588 (May 6, 1991) (''*Sparklers*''), as further developed in *Notice of Final Determination of Sales at Less Than Fair Value: Silicon Carbide from the People's Republic of China*, 59 FR 22585 (May 2, 1994) (''*Silicon Carbide*''). However, if the Department determines that a company is wholly foreign–owned or located in a market economy, then a separate–rate analysis is not necessary to determine whether it is independent from government control.

**Separate Rate Recipients[10]**

*1. Wholly Foreign–Owned*

No companies reported that they are wholly owned by individuals or companies located in a market economy in their separate–rate applications. Therefore, we are not addressing wholly–foreign owned companies in our analysis.

*2. Located in a Market Economy with No PRC Ownership*

No companies in this administrative review are located outside the PRC. Therefore, we are not addressing this ownership structure in these preliminary results of review.

*3. Joint Ventures Between Chinese and Foreign Companies or Wholly Chinese–Owned Companies*

Jiheng and Nanning stated that they are either joint ventures between Chinese and foreign companies or are wholly Chinese–owned companies (collectively ''PRC SR Applicants''). Therefore, the Department must analyze whether these respondents can demonstrate the absence of both *de jure* and *de facto* government control over export activities.

*a. Absence of De Jure Control*

The Department considers the following *de jure* criteria in determining whether an individual company may be granted a separate rate: (1) An absence of restrictive stipulations associated with an individual exporter's business and export licenses; (2) any legislative enactments decentralizing control of companies; and (3) other formal measures by the government decentralizing control of companies. *See Sparklers*, 56 FR at 20589.

The evidence provided by Jiheng and Nanning supports a preliminary finding of *de jure* absence of government control based on the following: (1) an absence of restrictive stipulations associated with the individual exporter's business and export licenses; (2) there are applicable legislative enactments decentralizing control of the companies; and (3) there are formal measures by the government decentralizing control of companies. *See* Jiheng's September 10, 2007, submission at Exhibit A–6; and Nanning's September 7, 2007, submission at Exhibit A–1.

*b. Absence of De Facto Control*

Typically the Department considers four factors in evaluating whether each respondent is subject to *de facto* government control of its export functions: (1) Whether the export prices are set by or are subject to the approval of a government agency; (2) whether the respondent has authority to negotiate and sign contracts and other agreements; (3) whether the respondent has autonomy from the government in making decisions regarding the selection of management; and (4) whether the respondent retains the proceeds of its export sales and makes independent decisions regarding disposition of profits or financing of losses. *See Silicon Carbide*, 59 FR at 22586–87; *see also Notice of Final Determination of Sales at Less Than Fair Value: Furfuryl Alcohol From the People's Republic of China*, 60 FR 22544, 22545 (May 8, 1995). The Department has determined that an analysis of *de facto* control is critical in determining whether respondents are, in fact, subject to a degree of government control which would preclude the Department from assigning separate rates.

The evidence placed on the record of this administrative review by the PRC SR Recipients demonstrates an absence of *de jure* and *de facto* government control with respect to each of the respondent's exports of the merchandise under review, in accordance with the criteria identified in *Sparklers* and *Silicon Carbide*. *See* ''Preliminary Results'' section below for companies marked with ''*'' designating these companies as joint ventures between Chinese and foreign companies or wholly Chinese–owned companies that have demonstrated their eligibility for a separate rate.

**B. Companies Not Receiving a Separate Rate**

The Department has determined that all parties applying for a separate rate in this segment of the proceeding have demonstrated an absence of government control both in law and in fact (see discussion above), and is, therefore, not denying separate–rate status to any applicants.

**Date of Sale**

Section 351.401(i) of the Department's regulations states that:

> In identifying the date of sale of the subject merchandise or foreign like

[9] *Policy Bulletin 05.1* states: ''While continuing the practice of assigning separate rates only to exporters, all separate rates that the Department will now assign in its NME investigations will be specific to those producers that supplied the exporter during the period of investigation. Note, however, that one rate is calculated for the exporter and all of the producers which supplied subject merchandise to it during the period of investigation. This practice applies both to mandatory respondents receiving an individually calculated separate rate as well as the pool of non-investigated firms receiving the weighted-average of the individually calculated rates. This practice is referred to as the application of 'combination rates' because such rates apply to specific combinations of exporters and one or more producers. The cash-deposit rate assigned to an exporter will apply only to merchandise *both* exported by the firm in question *and* produced by a firm that supplied the exporter during the period of investigation.'' *See Policy Bulletin 05.1* at 6 (*emphasis in original*).

[10] All separate rate applicants receiving a separate rate are hereby referred to collectively as the ''SR Recipients'', which include the mandatory respondents as well.

product, the Secretary normally will use the date of invoice, as recorded in the exporter or producer's records kept in the normal course of business. However, the Secretary may use a date other than the date of invoice if the Secretary is satisfied that a different date better reflects the date on which the exporter or producer establishes the material terms of sale.

Jiheng

Jiheng reported the shipment date as the date of sale because it claims that, for its U.S. sales of subject merchandise made during the POR, the material terms of sale were established on the shipment date and its shipment date was on or before the invoice date. We have preliminarily determined that the shipment date is the most appropriate date to use as Jiheng's date of sale in accordance with our long–standing practice of determining the date of sale as the date on which the final terms of sale are established.[11] Evidence on the record demonstrates that the shipment date usually occurs prior to the invoice date. *See* Jiheng's CQR. It is the Department's practice to use shipment date as the date of sale when the shipment date occurs prior to the invoice date.[12] Moreover, the shipment date was considered the sale date in the prior POR.[13]

Nanning

Nanning's sale took place during the previous POR. However, because the sale entered the United States during the current POR, any antidumping duty liability can only be determined and assessed in the context of the current POR. Therefore, Nanning reported the entry date which coincides with the current administrative review period as its date of sale. We have preliminarily determined that the entry date is the most appropriate date to use as Nanning's date of sale in this circumstance. It is the Department's practice to include sales that are sold prior to the POR if the respondent can demonstrate the sale entered the United States during the POR.[14]

**Fair Value Comparisons**

To determine whether sales of chlorinated isos to the United States by Jiheng and Nanning were made at less than NV, we compared export price (''EP'') to NV, as described in the ''Export Price'' and ''Normal Value'' sections of this notice, pursuant to section 771(35) of the Act.

**Export Price**

Jiheng and Nanning sold the subject merchandise to unaffiliated purchasers in the United States prior to importation into the United States. Therefore, we have used EP in accordance with section 772(a) of the Act because the use of the constructed export price methodology is not otherwise indicated. We calculated EP based on the price including the appropriate shipping terms to the unaffiliated purchasers reported by Jiheng and Nanning. From this price, we deducted amounts for foreign inland freight, brokerage and handling, international freight, and marine insurance, and added amounts for components that were supplied free of charge or reimbursed by the customer where applicable, pursuant to section 772(c)(2)(A) of the Act.[15]

The Department used two sources to calculate a surrogate value for domestic brokerage expenses. The Department averaged the February 2004–January 2005 data contained in Agro Dutch Industries Limited's (''Agro Dutch'') May 24, 2005, public version response submitted in the administrative review of the antidumping duty order on certain preserved mushrooms from India.[16] These data were averaged with the July 2004–June 2005 data contained in Kejriwal Paper Ltd.'s (''Kejriwal'') January 9, 2006, public version response submitted in the administrative review of the antidumping duty order on lined paper products from India.[17] The brokerage–expense data reported by Agro Dutch and Kejriwal in the public versions of their respective responses are ranged data. The Department first derived an average per–unit amount from each data source. We then separately adjusted each average rate for inflation. Finally, we averaged the two per–unit amounts to derive an overall average rate for the POR. *See* Surrogate Value Memorandum.

To value truck freight, we used the freight rates published by Indian Freight Exchange, available at http://www.infreight.com. The truck freight rates are for the period April 2005 through October 2005. Since these dates are not contemporaneous with the POR, we made an adjustment for inflation. *See* Surrogate Value Memorandum.

Respondents who incurred international freight expenses on the subject merchandise reported that they used a market–economy international freight carrier and paid for the international freight expense in a market–economy currency. Therefore, we used the reported international freight expenses by the respondents, where necessary.

To value marine insurance, we used an April 2005 rate quote for marine insurance from http://www.rjgconsultants.com. Since this date is not contemporaneous with the POR, we made an adjustment for inflation. *See* Surrogate Value Memorandum.

Jiheng reported that its U.S. customer(s) provided it with certain raw materials and packing materials free of charge. For Jiheng's products that contained inputs provided free of charge by its customer,[18] consistent with the Department's practice, we added to the U.S. price paid by the Jiheng's customer

[11] *Notice of Final Determination of Sales at Less Than Fair Value and Negative Final Determination of Critical Circumstances: Certain Frozen and Canned Warmwater Shrimp from Thailand*, 69 FR 76918 (December 23, 2004), and accompanying Issues and Decision Memorandum at Comment 10; and *Notice of Final Determination of Sales at Less Than Fair Value: Structural Steel Beams from Germany*, 67 FR 35497 (May 20, 2002), and accompanying Issues and Decision Memorandum at Comment 2.

[12] *See, e.g., Notice of Final Determinations of Sales at Less Than Fair Value: Certain Durum Wheat and Hard Red Spring Wheat from Canada*, 68 FR 52741 (September 5, 2003), and accompanying Issues and Decision Memorandum at Comment 3.

[13] *See Chlorinated Isocyanurates from the People's Republic of China: Preliminary Results of Antidumping Duty Administrative Review*, 72 FR 39053 (July 17, 2007) (unchanged in *Chlorinated Isocyanurates from the People's Republic of China: Final Results of Antidumping Duty Administrative Review*, 73 FR 159 (January 2, 2008)).

[14] *See, e.g., Stainless Steel Wire Rod from Sweden: Final Results of Antidumping Duty Administrative Review*, 72 FR 17834 (April 10, 2007), and accompanying Issues and Decision Memorandum at Comment 3.

[15] *See* Memorandum regarding ''Analysis for the Preliminary Results of the 2006-2007 Administrative Review of Chlorinated Isocyanurates from the People's Republic of China: Hebei Jiheng Chemical Company Ltd. (April 29, 2008); *see also* Memorandum regarding ''Analysis for the Preliminary Results of the 2006-2007 Administrative Review of Chlorinated Isocyanurates from the People's Republic of China: Nanning Chemical Industry Co., Ltd. (April 29, 2008).

[16] *See Certain Preserved Mushrooms From India: Final Results of Antidumping Duty Administrative Review, 70 FR 37757 (June 30, 2005); and Notice of Preliminary Determination of Sales at Less Than Fair Value, Affirmative Critical Circumstances, In Part, and Postponement of Final Determination: Certain Lined Paper Products from the People's Republic of China*, 71 FR 19695, 19704 (April 17, 2006) unchanged in *Notice of Final Determination of Sales at Less Than Fair Value, and Affirmative Critical Circumstances, In Part: Certain Lined Paper Products From the People's Republic of China*, 71 FR 53079 (September 8, 2006).

[17] *See Notice of Final Determination of Sales at Less Than Fair Value, and Negative Determination of Critical Circumstances: Certain Lined Paper Products from India*, 71 FR 45012 (August 8, 2006).

[18] Jiheng stated that its customer sourced materials from both market-economy and NME suppliers. Jiheng further stated that it does not know the names of the market-economy suppliers. See Jiheng's DQR at D-6–D-7.

the built–up cost (*i.e.*, the surrogate value for these raw materials and packing materials multiplied by the reported FOPs for these items).[19]

**Normal Value**

Section 773(c)(1) of the Act provides that, in the case of an NME, the Department shall determine NV using an FOP methodology if the merchandise is exported from an NME and the information does not permit the calculation of NV using home–market prices, third–country prices, or constructed value under section 773(a) of the Act.

The Department will base NV on FOPs because the presence of government controls on various aspects of these economies renders price comparisons and the calculation of production costs invalid under our normal methodologies. Therefore, we calculated NV based on FOPs in accordance with sections 773(c)(3) and (4) of the Act and 19 CFR 351.408(c). The FOPs include: (1) hours of labor required; (2) quantities of raw materials employed; (3) amounts of energy and other utilities consumed; and (4) representative capital costs. We used the FOPs reported by respondents for materials, energy, labor, by products, and packing.

In accordance with 19 CFR 351.408(c)(1), the Department will normally use publicly available information to value the FOPs, but when a producer sources an input from a market–economy country and pays for it in market–economy currency, the Department may value the factor using the actual price paid for the input.[20] Jiheng reported that it did not purchase any inputs from market economy suppliers for the production of the subject merchandise. *See* Jiheng's DQR at D–8. However, Nanning reported that it purchased all of the sodium chloride it consumed in the production of the subject merchandise from market economy suppliers and paid for its purchases in a market–economy currency. *See* Nanning's DQR at D–4.

With regard to both the Indian import–based surrogate values and the market–economy input values, we have disregarded prices that we have reason to believe or suspect may be subsidized, such as those from India, Indonesia, South Korea, and Thailand. We have found in other proceedings that these countries maintain broadly available, non–industry-specific export subsidies and, therefore, it is reasonable to infer that all exports to all markets from these countries may be subsidized.[21] We are also guided by the statute's legislative history that explains that it is not necessary to conduct a formal investigation to ensure that such prices are not subsidized. *See* H.R. Rep. No. 100–576, at 590 (1988). Rather, the Department was instructed by Congress to base its decision on information that is available to it at the time it is making its determination. Therefore, we have not used prices from these countries in calculating the Indian import–based surrogate values.

**Factor Valuations**

In accordance with section 773(c) of the Act, we calculated NV based on the FOPs reported by Jiheng and Nanning for the POR. With respect to Nanning, we adjusted its reported FOP for urea and calculated an FOP for purchased cyanuric acid consumed during the POR. Specifically, Nanning's reported FOP for urea incorrectly calculated an estimate of the up–stream urea factor for its consumption of purchased cyanuric acid. While the Department will value the inputs into self–produced materials, the Department does not value inputs into purchased materials.[22] Therefore, in this limited circumstance because we were easily able to do so based on the record information provided by Nanning, we made an adjustment to Nanning's reported FOP for urea, so that it accounts only for Nanning's reported consumption in its production of self–produced cyanuric acid. We also calculated an FOP for Nanning's consumption of purchased cyanuric acid based on its reported consumption amounts of this factor. To calculate NV, we multiplied the reported per–unit factor quantities by publicly available Indian surrogate values (except as noted below). In selecting the surrogate values, we considered the quality, specificity, and contemporaneity of the data. As appropriate, we adjusted input prices by including freight costs to render them delivered prices. Specifically, we added to Indian import surrogate values a surrogate freight cost using the shorter of the reported distance from the domestic supplier to the factory or the distance from the nearest seaport to the factory. This adjustment is in accordance with the decision of the U.S. Court of Appeals for the Federal Circuit in *Sigma Corp. v. United States*, 117 F. 3d 1401, 1408 (Fed. Cir. 1997). For a detailed description of all surrogate values used for Jiheng and Nanning, see the Surrogate Value Memorandum.

Except as noted below, we valued raw material inputs using the weighted–average unit import values derived from the *Monthly Statistics of the Foreign Trade of India*, as published by the Directorate General of Commercial Intelligence and Statistics of the Ministry of Commerce and Industry, Government of India in the World Trade Atlas, available at http://www.gtis.com/wta.htm (''WTA''). Where we could not obtain publicly available information contemporaneous with the POR with which to value FOPs, we adjusted the surrogate values using, where appropriate, the Indian Wholesale Price Index (''WPI'') as published in the *International Financial Statistics* of the International Monetary Fund. *See* Surrogate Value Memorandum. We further adjusted these prices to account for freight costs incurred between the supplier and respondent. We used the freight rates published by Indian Freight Exchange available at http://www.infreight.com, to value truck freight. *See* the Surrogate Value Memorandum. We adjusted the truck and rail freight rates for inflation, where necessary. For a complete description of the factor values we used, see the Surrogate Value Memorandum.

We valued calcium chloride, hydrochloric acid, barium chloride and sulfuric acid using *Chemical Weekly* because we did not have reliable Indian import statistics in the WTA for these factors. We adjusted these values for taxes and to account for freight costs incurred between the supplier and the respondent.

Jiheng reported that its U.S. customer(s) provided certain raw materials and packing materials free of charge. For Jiheng's products that included raw materials and packing materials provided free of charge by its

[19] *See, e.g., Notice of Final Determination of sales at Less Than Fair Value, and Affirmative Critical Circumstances, In Part: Certain Lined Paper Products from the People's Republic of China*, 71 FR 53079 (September 8, 2006), and accompanying Issues and Decision Memorandum at Comment 17.

[20] *See* 19 CFR 351.408(c)(1); *see also, Shakeproof Assembly Components Div. of Ill v. United States, 268 F.3d* 1376, 1382-1383 (Fed. Cir. 2001) (affirming the Department's use of market-based prices to value certain FOPs).

[21] *See Certain Frozen Fish Fillets from the Socialist Republic of Vietnam: Notice of Preliminary Results and Preliminary Partial Rescission of Antidumping Duty Administrative Review*, 70 FR 54007, 54011 (September 13, 2005), unchanged in *Certain Frozen Fish Fillets from the Socialist Republic of Vietnam: Final Results of the First Administrative Review*, 71 FR 14170 (March 21, 2006); and *China National Machinery Import & Export Corporation v. United States*, 293 F. Supp. 2d 1334 (CIT 2003), affirmed 104 Fed. Appx. 183 (Fed. Cir. 2004).

[22] *See, e.g., Final Determination of Sales at Less Than Fair Value: Certain Activated Carbon from the People's Republic of China*, 72 FR 9508 (March 2, 2007), and accompanying Issues and Decision Memorandum at Comment 21; *see also Certain Cased Pencils from the People's Republic of China: Final Results and Partial Rescission of Antidumping Duty Administrative Review*, 71 FR 38366 (July 6, 2006), and accompanying Issues and Decision Memorandum at Comment 2.

customer, consistent with the Department's practice, we used the built–up cost (*i.e.*, the surrogate value for these raw materials and packing materials multiplied by the reported FOPs for these items) in the NV calculation.[23] Where applicable, we also adjusted these values to account for freight costs incurred between the port of exit and Jiheng's plants. *See* Surrogate Value Memorandum, and Jiheng's Preliminary Analysis Memorandum.

To value electricity, we used the 2000 electricity price data from International Energy Agency, Energy Prices and Taxes - Quarterly Statistics (First Quarter 2003), adjusted for inflation. See Surrogate Value Memorandum. On April 9, 2008, Arch Chemicals submitted additional information for selection as a surrogate value for electricity. We were unable to consider this information in the selection of a surrogate value for electricity for the preliminary results. However, we will review this information and any discussion of the electricity value included in parties' case briefs for the final results of review.

To value water, we used the revised Maharashtra Industrial Development Corporation (''MIDC'') water rates for June 1, 2003, available at http://www.midcindia.com/water–supply, adjusted for inflation. *See* Surrogate Value Memorandum.

To value steam coal, we used data obtained for categories B and C for coal reported in Tata Energy Research Institute's Energy Data Directory & Yearbook adjusted for inflation. *See* Surrogate Value Memorandum.

Jiheng reported chlorine, hydrogen gas, ammonia gas, and sulfuric acid as by products in the production of subject merchandise. We found in this administrative review that Jiheng has appropriately reported its by products and, therefore, granted Jiheng a by–product offset for the quantities of these reported by products. We valued chlorine and hydrogen gas with Philippine import data obtained from *WTA* because it represented better information than the Indian import data for these factors. *See* Surrogate Value Memorandum.

For direct labor, indirect labor and packing labor, consistent with 19 CFR 351.408(c)(3), we used the PRC regression–based wage rate as reported on Import Administration's web site.[24] Because this regression–based wage rate does not separate the labor rates into different skill levels or types of labor, we have applied the same wage rate to all skill levels and types of labor reported by each respondent. *See* Surrogate Value Memorandum.

For packing materials, we used the per–kilogram values obtained from the WTA and made adjustments to account for freight costs incurred between the PRC supplier and the respondents' plants. *See* Surrogate Value Memorandum.

For factory overhead, selling, general, and administrative expenses (''SG&A''), and profit values, we used information from Kanoria Chemicals and Industries Limited for the year ending March 31, 2007. From this information, we were able to determine factory overhead as a percentage of the total raw materials, labor and energy (''ML&E'') costs; SG&A as a percentage of ML&E plus overhead (*i.e.*, cost of manufacture); and the profit rate as a percentage of the cost of manufacture plus SG&A. *See* Surrogate Value Memorandum for a full discussion of the calculation of these ratios.

**Currency Conversion**

We made currency conversions into U.S. dollars, in accordance with section 773A(a) of the Act, based on the exchange rates in effect on the dates of the U.S. sales, as certified by the Federal Reserve Bank.

**Preliminary Results**

We preliminarily determine that the following weighted–average dumping margins exist:

| Manufacturer/Exporter | Margin (Percent) |
|---|---|
| Jiheng* | 23.28 |
| Nanning* | 66.89 |

**Disclosure**

We will disclose the calculations used in our analysis to parties to this proceeding within five days of the publication date of this notice. *See* 19 CFR 351.224(b). Interested parties are invited to comment on the preliminary results and may submit case briefs and/or written comments within 30 days of the date of publication of this notice. *See* 19 CFR 351.309(c)(ii). Rebuttal briefs and rebuttals to written comments, limited to issues raised in such briefs or comments, may be filed no later than 5 days after the time limit for filing the case briefs. *See* 19 CFR 351.309(d). The Department requests that parties submitting written comments provide an executive summary and a table of authorities as well as an additional copy of those comments electronically.

Any interested party may request a hearing within 30 days of publication of this notice. *See* 19 CFR 351.310(c). Hearing requests should contain the following information: (1) the party's name, address, and telephone number; (2) the number of participants; and (3) a list of the issues to be discussed. Oral presentations will be limited to issues raised in the briefs. Any hearing, if requested, will be held seven days after the deadline for submission of the rebuttal briefs at the U.S. Department of Commerce, 14th Street and Constitution Avenue, NW, Washington, DC 20230. *See* 19 CFR 351.310(d).

The Department will issue the final results of this administrative review, which will include the results of its analysis of issues raised in any such comments, within 120 days of publication of these preliminary results, pursuant to section 751(a)(3)(A) of the Act.

**Assessment Rates**

Upon issuance of the final results, the Department will determine, and CBP shall assess, antidumping duties on all appropriate entries. The Department intends to issue appropriate assessment instructions directly to CBP 15 days after the date of publication of the final results of this administrative review. If these preliminary results are adopted in our final results of review, the Department shall determine, and CBP shall assess, antidumping duties on all appropriate entries. Pursuant to 19 CFR 351.212(b)(1), we will calculate importer–specific (or customer) *ad valorem* duty assessment rates based on the ratio of the total amount of dumping margins calculated for the examined sales to the total entered value of those same sales. We will instruct CBP to assess antidumping duties on all appropriate entries covered by this review if any importer–specific rate calculated in the final results of this review is above *de minimis*.

**Cash Deposit Requirements**

Further, 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

[23] *See, e.g., Notice of Final Determination of Sales at Less Than Fair Value, and Affirmative Critical Circumstances, In Part: Certain Lined Paper Products from the People's Republic of China*, 71 FR 53079 (September 8, 2006), and accompanying Issues and Decision Memorandum at Comment 17.

[24] *See* Expected Wages of Selected NME Countries (revised January 2007) (available at http://ia.ita.doc.gov/wages). The source of these wage rate data on the Import Administration's web site is the *Yearbook of Labour Statistics 2004*, ILO, (Geneva: 2004), Chapter 5B: Wages in Manufacturing. The years of the reported wage rates range from 2003 to 2004.

withdrawn from warehouse, for consumption on or after the publication date, as provided for by section 751(a)(2)(C) of the Act: (1) for Jiheng and Nanning, which have separate rates, the cash deposit rate will be the company–specific rate established in the final results of review (except, if the rate is zero or *de minimis*, a zero cash deposit will be required); (2) for previously investigated or reviewed PRC and non–PRC exporters not listed above that have separate rates, the cash deposit rate will continue to be the exporter–specific rate published for the most recent period; (3) for all PRC exporters of subject merchandise that have not been found to be entitled to a separate rate, the cash deposit rate will be the PRC–wide rate of 285.63 percent; and (4) for all non–PRC exporters of subject merchandise which have not received their own rate, the cash deposit rate will be the rate applicable to the PRC exporters that supplied that non–PRC exporter. These deposit requirements, when imposed, shall remain in effect until further notice.

**Notification to Importers**

This notice also serves as a preliminary 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 the Secretary's presumption that reimbursement of antidumping duties occurred and the subsequent assessment of double antidumping duties.

This determination is issued and published in accordance with sections 751(a)(1) and 777(i)(1) of the Act.

Dated: April 29, 2008.

**David M. Spooner,**

*Assistant Secretary for Import Administration.*

[FR Doc. E8–9990 Filed 5–5–08; 8:45 am]

BILLING CODE 3510–DS–S

## DEPARTMENT OF COMMERCE

## International Trade Administration

**(A–791–815)**

## Ferrovanadium from South Africa: Notice of Rescission of Antidumping Duty Administrative Review

**AGENCY:** Import Administration, International Trade Administration, Department of Commerce.

**EFFECTIVE DATE:** May 6, 2008.

**FOR FURTHER INFORMATION CONTACT:** Brian Smith or Gemal Brangman, AD/CVD Operations, Office 2, Import Administration, International Trade Administration, U.S. Department of Commerce, 14th Street and Constitution Avenue, NW, Washington, DC 20230; telephone: (202) 482–1766 or (202) 482–3773, respectively.

**SUPPLEMENTARY INFORMATION:**

**Background**

On January 2, 2008, the Department of Commerce (the Department) published a notice of opportunity to request an administrative review of the antidumping duty order on ferrovanadium from South Africa. *See Antidumping or Countervailing Duty Order, Finding, or Suspended Investigation: Opportunity to Request Administrative Review*, 73 FR 158 (January 2, 2008). On January 31, 2008, Mittal Steel Lazaro Cardenas (an exporter of subject merchandise) requested that the Department conduct an administrative review on its behalf. On February 27, 2008, the Department published a notice of initiation of the antidumping duty administrative review of ferrovanadium from South Africa for the period January 1, 2007, through December 31, 2007. *See Initiation of Antidumping and Countervailing Duty Administrative Reviews*, 73 FR 10422 (February 27, 2008).

**Rescission of Review**

Pursuant to 19 CFR 351.213(d)(1), the Secretary will rescind an administrative review, in whole or in part, if the party that requested the review withdraws the request within 90 days of the date of publication of the notice of initiation of the requested review. On April 22, 2008, Mital Steel Lazaro Cardenas withdrew its request for an administrative review within 90 days of publication of the notice of initiation of this review. Therefore, in accordance with 19 CFR 351.213(d)(1), the Department hereby rescinds the administrative review of ferrovanadium from South Africa for the period January 1, 2007, through December 31, 2007. The Department intends to issue assessment instructions to U.S. Customs and Border Protection 15 days after the date of publication of this notice of rescission of administrative review.

This notice is issued and published in accordance with section 777(i) of the Tariff Act of 1930, as amended, and 19 CFR 351.213(d)(4).

Dated: April 30, 2008.

**Stephen J. Claeys,**

*Deputy Assistant Secretary for Import Administration.*

[FR Doc. E8–9988 Filed 5–5–08; 8:45 am]

BILLING CODE 3510–DS–S

## DEPARTMENT OF COMMERCE

## National Institute of Standards and Technology

## Advisory Committee on Earthquake Hazards Reduction Meeting

**AGENCY:** National Institute of Standards and Technology, Department of Commerce.

**ACTION:** Notice of open meeting.

**SUMMARY:** The Advisory Committee on Earthquake Hazards Reduction (ACEHR or Committee), will hold a meeting on Wednesday, May 21, 2008 from 1 p.m. to 4 p.m. Eastern Standard Time (EST). The primary purpose of this meeting is to review the Committee's draft report to the NIST Director. The draft report will be posted on the NEHRP Web site at *http://nehrp.gov/*. Interested members of the public will be able to participate in the meeting from remote locations by calling into a central phone number.

**DATES:** The ACEHR will hold a meeting on Wednesday, May 21, 2008, from 1 p.m. until 4 p.m. Eastern Standard Time (EST). The meeting will be open to the public. Interested parties may participate in the meeting from their remote location.

**ADDRESSES:** Questions regarding the meeting should be sent to National Earthquake Hazards Reduction Program Director, National Institute of Standards and Technology, 100 Bureau Drive, Mail Stop 8630, Gaithersburg, Maryland 20899–8630. For instructions on how to participate in the meeting, please see the **SUPPLEMENTARY INFORMATION** section of this notice.

**FOR FURTHER INFORMATION CONTACT:** Dr. Jack Hayes, National Earthquake Hazards Reduction Program Director, National Institute of Standards and Technology, 100 Bureau Drive, Mail Stop 8630, Gaithersburg, Maryland 20899–8630. Dr. Hayes' e-mail address is *jack.hayes@nist.gov* and his phone number is (301) 975–5640.

**SUPPLEMENTARY INFORMATION:** The Committee was established in accordance with the requirements of Section 103 of the NEHRP Reauthorization Act of 2004 (Pub. L. 108–360). The Committee is composed of 15 members appointed by the Director of NIST, who were selected for their technical expertise and experience,

established records of distinguished professional service, and their knowledge of issues affecting the National Earthquake Hazards Reduction Program. In addition, the Chairperson of the U.S. Geological Survey (USGS) Scientific Earthquake Studies Advisory Committee (SESAC) serves in an ex-officio capacity on the Committee. The Committee assesses:

- Trends and developments in the science and engineering of earthquake hazards reduction;
- The effectiveness of NEHRP in performing its statutory activities (improved design and construction methods and practices; land use controls and redevelopment; prediction techniques and early-warning systems; coordinated emergency preparedness plans; and public education and involvement programs);
- Any need to revise NEHRP; and
- The management, coordination, implementation, and activities of NEHRP.

Background information on NEHRP and the Advisory Committee is available at *http://nehrp.gov/.*

Pursuant to the Federal Advisory Committee Act, 5 U.S.C. app. 2, notice is hereby given that the Advisory Committee on Earthquake Hazards Reduction (ACEHR) will hold a meeting on Wednesday, May 21, 2008, from 1 p.m. until 4 p.m. Eastern Standard Time (EST). There will be no central meeting location. The public is invited to participate in the meeting by calling in from remote locations. The primary purpose of this meeting is to review the Committee's draft report to the NIST Director. The draft report will be posted on the NEHRP Web site at *http://nehrp.gov/.*

Individuals and representatives of organizations who would like to offer comments and suggestions related to the Committee's affairs are invited to request detailed instructions on how to dial in from a remote location to participate in the meeting. Approximately fifteen minutes will be reserved from 3:45 p.m.–4 p.m. Eastern Standard Time (EST) for public comments, and speaking times will be assigned on a first-come, first-serve basis. The amount of time per speaker will be determined by the number of requests received, but is likely to be about 3 minutes each. Questions from the public will not be considered during this period. Speakers who wish to expand upon their oral statements, those who had wished to speak but could not be accommodated, and those who were unable to participate are invited to submit written statements to the ACEHR, National Institute of Standards and Technology, 100 Bureau Drive, MS 8630, Gaithersburg, Maryland 20899–8630, via fax at (301) 975–5433, or electronically by e-mail to *info@nehrp.gov.*

All participants of the meeting are required to pre-register to be admitted. Anyone wishing to participate must register by close of business Thursday, May 8, 2008, in order to be admitted. Please submit your name, time of participation, e-mail address, and phone number to Tina Faecke. At the time of registration, participants will be provided with detailed instructions on how to dial in from a remote location in order to participate. Non-U.S. citizens must also submit their country of citizenship, title, employer/sponsor, and address with their registration. Ms. Faecke's e-mail address is *cookie@nist.gov,* and her phone number is (301) 975–5911.

Dated: April 28, 2008.

**James M. Turner,**

*Deputy Director.*

[FR Doc. E8–9958 Filed 5–5–08; 8:45 am]

**BILLING CODE 3510–13–P**

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## DEPARTMENT OF COMMERCE

### National Institute of Standards and Technology

### Visiting Committee on Advanced Technology

**AGENCY:** National Institute of Standards and Technology, Department of Commerce.

**ACTION:** Notice of Public Meeting.

**SUMMARY:** Pursuant to the Federal Advisory Committee Act, 5 U.S.C. app. 2, notice is hereby given that the Visiting Committee on Advanced Technology (VCAT), National Institute of Standards and Technology (NIST), will meet Tuesday, June 10, from 8 a.m. to 5 p.m. and Wednesday, June 11, from 9 a.m. to 11:45 a.m. The Visiting Committee on Advanced Technology is composed of fifteen members appointed by the Director of NIST who are eminent in such fields as business, research, new product development, engineering, labor, education, management consulting, environment, and international relations.

The purpose of this meeting is to review and make recommendations regarding general policy for the Institute, its organization, its budget, and its programs within the framework of applicable national policies as set forth by the President and the Congress. The theme for the meeting is ''NIST's Roles in the Innovation Ecosystem.'' The agenda will include discussions on guiding principles for the VCAT and the NIST leadership as well as NIST's 2008 priorities for the VCAT; an update on NIST including its response to the recommendations and findings in the 2007 VCAT Annual Report; and an overview of the innovation ecosystem with a focus on the drivers and the NIST role, as highlighted in presentations and discussions under three thematic sessions. Session I will cover NIST's role in enhancing use inspired basic research by working with academia, industry, and other agencies via joint research institutes, the Rapid Innovation and Competitiveness Initiative, and the Technology Innovation Program. Session II will focus on NIST's role in deploying technology and operational excellence by transforming manufacturing advances more quickly and measuring performance excellence. Session III will address NIST's role in responding to fast-paced standards issues. Other agenda items include two laboratory tours, feedback from the VCAT on NIST's role in the innovation ecosystem; a discussion of the VCAT's future structure; and presentations on NIST strategic planning topics, including biosciences, for the October 2008 VCAT meeting. The agenda may change to accommodate Committee business. The final agenda will be posted on the NIST Web site at *http://www.nist.gov/director/vcat/agenda.htm.*

**DATES:** The meeting will convene on June 10, 2008, at 8 a.m. and will adjourn on June 11, 2008, at 11:45 a.m.

**ADDRESSES:** The meeting will be held at the National Institute of Standards and Technology, Administration Building, Employees Lounge, Gaithersburg, Maryland 20899.

Anyone wishing to attend this meeting should submit name, e-mail address and phone number to Denise Herbert (*denise.herbert@nist.gov* or 301–975–5607) no later than June 6, 2008.

**FOR FURTHER INFORMATION CONTACT:** Denise Herbert, Visiting Committee on Advanced Technology, National Institute of Standards and Technology, Gaithersburg, Maryland 20899–1000, telephone number (301) 975–2300.

Dated: April 28, 2008.

**James M. Turner,**

*Deputy Director.*

[FR Doc. E8–9957 Filed 5–5–08; 8:45 am]

**BILLING CODE 3510–13–P**

## DEPARTMENT OF COMMERCE

### National Oceanic and Atmospheric Administration

**RIN 0648–XH72**

### Magnuson-Stevens Act Provisions; General Provisions for Domestic Fisheries; Application for Exempted Fishing Permits

**AGENCY:** National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

**ACTION:** Notice; request for comments.

**SUMMARY:** The Assistant Regional Administrator for Sustainable Fisheries, Northeast Region, NMFS (Assistant Regional Administrator) has made a preliminary determination that the subject exempted fishing permit (EFP) application contains all the required information and warrants further consideration. Therefore, NMFS announces that the Assistant Regional Administrator proposes to recommend that an EFP be issued that would allow one commercial fishing vessel to conduct fishing operations that are otherwise restricted by the regulations governing the fisheries of the Northeastern United States. The EFP, which would enable the applicants to investigate the feasibility of using a trawl net with buoyant ground cables and a buoyant sweep to reduce seabed contact and improve species selectivity, would allow for exemptions for one vessel from the Northeast Multispecies Fishery Management Program as follows: Gulf of Maine (GOM) Rolling Closure Areas II, III, and IV.

Regulations under the Magnuson-Stevens Fishery Conservation and Management Act require publication of this notification to provide interested parties the opportunity to comment on applications for proposed EFPs.

**DATES:** Comments must be received on or before May 21, 2008.

**ADDRESSES:** Written comments should be sent to Patricia A. Kurkul, Regional Administrator, NMFS, Northeast Regional Office, 1 Blackburn Drive, Gloucester, MA 01930. Mark the outside of the envelope ''Comments on the Buoyant Ground Cables Study.'' Comments may also be sent via facsimile (fax) to (978) 281–9135, or submitted via e-mail to the following address: *DA8–070@noaa.gov*.

**FOR FURTHER INFORMATION CONTACT:** Edward Stern, Fishery Management Specialist, (978) 281–9177, fax (978) 281–9135.

**SUPPLEMENTARY INFORMATION:** An EFP application for this project was submitted on March 6, 2008, by Kelo Pinkham of the F/V JEANNE C (Permit ι230524). The project, which extends previous work conducted by the applicants, has been refined since originally receiving a development grant in 2003 and included both flume tank trials and at-sea trials. An EFP issued in 2006, for calendar year 2007, authorized a total of 25 days of sampling for two vessels. An experimental otter trawl net, with floats incorporated along both the ground cables and the sweep, as well as drop chains integrated along the sweep, was constructed and flume tank tested in 2007. One vessel, the F/V OCEAN REPORTER (Permit ι221596), completed 5 days of research in 2007. Due to unexpected research difficulties, the F/V JEANNE C only completed 5 out of the additional 20 research days remaining. To complete this research project, Kelo Pinkham of the F/V JEANNE C submitted a second EFP application after the first EFP's expiry on December 1, 2007.

This is a joint project with Dana Morse of Maine Sea Grant and is funded by the Northeast Consortium (NEC). The primary goal of the research is to develop and test a trawl net with buoyant ground cables and a buoyant sweep to reduce seabed contact and increase species selectivity. The intent of the applicant is that the experimental net, if successful, could potentially be suitable for fishing in areas requiring a haddock separator trawl and/or fishing in areas of hard bottom with the use of mid-water doors.

This EFP would be issued to the F/V JEANNE C to conduct 15 at-sea days of experimental fishing in an area northeast of the Western GOM Closure Area and northwest of the Cashes Ledge Closure Area (see Table 1). All fishing would be conducted outside of the Western GOM Closure Area and the Cashes Ledge Closure Area. This vessel is expected to make a total of 60 tows, fishing 4 tows per day, each of 2 hours in duration. Two of the tows per day would be fished with standard gear, and two would be fished with modified gear. Researchers intend to complete this project within 1 year of the date of issuance.

TABLE 1: CORNER COORDINATES FOR EXPERIMENTAL FISHING AREA BY F/V JEANNE C

| Point | Latitude | Longitude |
|---|---|---|
| 1 | 43°40′ N | 69°00′ W |

TABLE 1: CORNER COORDINATES FOR EXPERIMENTAL FISHING AREA BY F/V JEANNE C—Continued

| Point | Latitude | Longitude |
|---|---|---|
| 2 | 43°40′ N | 70°00′ W |
| 3 | 43°20′ N | 69°00′ W |
| 4 | 43°20′ N | 70°00′ W |
| 5 | 43°40′ N | 69°00′ W |

The applicants have asked for an exemption to the regulations at 50 CFR 648.81(f)(1)(ii) through (iv), i.e., GOM Rolling Closure Areas II, III, and IV, respectively, due to a belief that there will be a better mixture of flounders, pollock, haddock, and cod present in the waters of the western GOM during these seasonal closures for testing the experimental gear.

During the 15 at-sea days of comparative fishing trials, the F/V JEANNE C would use A days-at-sea (DAS) and would be subject to all day and trip possession limits. All fish caught would be weighed and as many fish as possible would be measured. All undersized fish or fish that cannot legally be caught would be returned to the sea as quickly as practicable after measurement. The overall catch estimates expected for the remainder of this project under this EFP can be found in Table 2. The applicants anticipate a total harvest of 20,700 lb (9,389 kg), and an additional 10,100 lb (4,581.4 kg) of discards. The estimated GOM cod catch for the proposed number of DAS during this EFP would be 55 percent of the current daily possession limit of 800 lb (362.9 kg) for the proposed number of DAS. All legal-sized fish, within the possession limit, would be sold, with the proceeds returned to the NEC for the purpose of enhancing future research. The anticipated monkfish harvest is purposefully set at the maximum allowed for 15 DAS because the experimental trawl is designed to reduce flatfish, not monkfish, catch. If the researchers set over an area with monkfish, they do not anticipate any significant reductions in monkfish catch between a standard trawl and the experimental trawl.

TABLE 2: ESTIMATED CATCH AND DISCARDS BY SPECIES LB (KG)

| Species | Harvest | Discards |
|---|---|---|
| Haddock | 6,000 (2,721.6) | 600 (272.2) |

TABLE 2: ESTIMATED CATCH AND DISCARDS BY SPECIES LB (KG)—Continued

| Species | Harvest | Discards |
|---|---|---|
| Cod | 6,000 (2,721.6) | 600 (272.2) |
| Monkfish | 4,500 (2,041.2) | 900 (408.2) |
| Grey Sole | 900 (408.2) | 100 (45.4) |
| Pollock | 600 (272.2) | 50 (22.7) |
| American Plaice | 600 (272.2) | 100 (45.4) |
| Winter Flounder | 300 (136.1) | 100 (45.4) |
| Redfish | 1,200 (544.3) | 300 (136.1) |
| Whiting | 300 (136.1) | 50 (22.7) |
| Hake sp. | 300 (136.1) | 100 (45.4) |
| Dogfish | 0 (0) | 3,000 (1,360.8) |
| Skate sp. | 0 (0) | 2,400 (1,088.6) |
| Lumpfish | 0 (0) | 600 (272.2) |
| Lobster | 0 (0) | 600 (272.2) |
| Crab sp. | 0 (0) | 600 (272.2) |

The applicants may request minor modifications and extensions to the EFP throughout the course of research. EFP modifications and extensions may be granted without further public notice if they are deemed essential to facilitate completion of the proposed research and result in only a minimal change in the scope or impacts of the initially approved EFP request.

In accordance with NAO Administrative Order 216–6, a Categorical Exclusion or other appropriate NEPA document would be completed prior to the issuance of the EFP. Further review and consultation may be necessary before a final determination is made to issue the EFP. After publication of this document in the **Federal Register**, the EFP, if approved, may become effective following the public comment period.

**Authority:** 16 U.S.C. 1801 *et seq.*

Dated: May 1, 2008.

**Emily H. Menashes**

*Acting Director, Office of Sustainable Fisheries, National Marine Fisheries Service.*

[FR Doc. E8–9967 Filed 5–5–08; 8:45 am]

**BILLING CODE 3510–22–S**

## DEPARTMENT OF COMMERCE

### National Oceanic and Atmospheric Administration

### Draft Management Plan and Environmental Assessment for the Gerry E. Studds Stellwagen Bank National Marine Sanctuary: Notice of Public Availability and Meetings

**AGENCY:** Office of National Marine Sanctuaries (ONMS), National Ocean Service (NOS), National Oceanic and Atmospheric Administration (NOAA), Department of Commerce (DOC).

**ACTION:** Notice of public availability and meetings.

**SUMMARY:** In accordance with section 304(e) of the National Marine Sanctuaries Act, as amended, (NMSA) NOAA is soliciting public comment on the draft management plan and draft environmental assessment for the Gerry E. Studds Stellwagen Bank National Marine Sanctuary.

**DATES:** *Comments:* Comments on the draft management plan and draft environmental assessment will be considered if received on or before August 4, 2008.

*Public meetings:* See **SUPPLEMENTARY INFORMATION** section below for the dates and locations for the public meetings.

**ADDRESSES:** *To obtain a copy:* For a copy of the draft management plan and draft environmental assessment, contact the Management Plan Review Coordinator, Stellwagen Bank National Marine Sanctuary, 175 Edward Foster Rd., Scituate, MA 02066. Copies can also be downloaded from the SBNMS Web site at *http://stellwagen.noaa.gov.*

*To submit comments:* Comments on the draft management plan and draft environmental assessment may be submitted by one of the following methods:

1. In writing to the SBNMS Management Plan Review Coordinator (see *to obtain a copy* section above);
2. By e-mail to *sbplan@noaa.gov;* or
3. By providing comments (oral or written) at one of the public meetings (see public meetings section below).

*Public meetings:* See **SUPPLEMENTARY INFORMATION** section for the dates and locations for the public meetings.

**FOR FURTHER INFORMATION CONTACT:** Benjamin Cowie-Haskell at (781) 545–8026 or via e-mail at *sbplan@noaa.gov.*

**SUPPLEMENTARY INFORMATION:**

### Background Information

Congress designated the Gerry E. Studds Stellwagen Bank National Marine Sanctuary (sanctuary or SBNMS) through the Oceans Act of 1992 (November 4, 1992; Public Law 102–587 at section 2202). In 1993, the National Oceanic and Atmospheric Administration (NOAA) issued final regulations and released a final management plan and environmental impact statement (EIS) to implement this designation (NOAA 1993). Section 304(e) of the NMSA requires NOAA to review its management plans for national marine sanctuaries every five years, and to evaluate the substantive progress toward implementing the management plans and goals for each sanctuary, especially the effectiveness of site-specific management techniques (16 U.S.C. 1434(e)).

In accordance with this requirement, NOAA initiated a review of the SBNMS management plan in 1998. This review was done in cooperation with members of the Sanctuary Advisory Council (SAC), a group formed of members of the public to provide advice to the sanctuary superintendent on the management and protection of sanctuary resources. The review was delayed two years due to a change in sanctuary management. NOAA restarted the review in June of 2002 with the publication of the ''State of the Sanctuary Report,'' which set the stage for the scoping meetings and public comment period that ended on October 18, 2002.

The review revealed that many of the initial goals and objectives of the original 1993 management plan had been met; however, in some areas these goals and objectives were non-specific and general in scope and/or based on limited scientific knowledge. New information about the natural and cultural resources of the sanctuary and the human uses of the resources made it apparent to NOAA that the plan was out-of date and outmoded. NOAA decided to incorporate this new knowledge by developing a new approach to managing the sanctuary, including an updated vision, mission, and statement of goals and objectives. In addition, NOAA revised the content and formatting requirements for all national marine sanctuary management plans. The ultimate purpose of this revised draft management plan is to update NOAA's approach to managing, protecting, and restoring the resources of the sanctuary pursuant to the purposes and policies of the NMSA. In April 2007, a report on the condition of sanctuary resources was released for public review and set the stage for this draft management plan.

### Management Plan Contents

The SBNMS draft management plan serves as a non-regulatory policy

framework for addressing the issues facing the sanctuary over the next five years. It lays the foundation for restoring and protecting the sanctuary's ecosystem; details the human pressures that threaten the qualities and resources of the sanctuary; and recommends actions that should be taken both now and in the future to better manage the area and resources.

This document provides strategic guidance for management actions and focuses these actions on four priority programmatic areas: capacity building, ecosystem protection, marine mammal protection and maritime heritage management. The eleven action plans detailed in the draft management plan address issues relative to these four areas, and are based extensively on the advice of working groups established by the SAC, cooperative coordination with other government agencies and organizations and ongoing public input.

The draft environmental assessment analyzes the environmental impacts of the revised management plan pursuant to the National Environmental Policy Act. In doing so, it analyzes two alternatives: the status quo (no change to the 1993 management plan) and the preferred alternative (revising the 1993 management plan).

**Public Meetings**

Public meetings will be held at the following locations and dates:

| | | |
|---|---|---|
| June 5 | Portland, ME | University of Southern Maine Law School, Talbot Lecture Hall, 88 Bedford Street. |
| June 9 | Wenham, MA | Gordon College, Lane Student Center, President's Dining Room, 255 Grapevine Road. |
| June 10 | Boston, MA | Boston University, School of Management, 4th Floor, Rooms 426 and 428, 595 Commonwealth Ave. |
| June 11 | Plymouth, MA | Hilton Garden Inn Plymouth, Plymouth Rooms 1 and 2, Four Home Depot Drive. |
| June 12 | Hyannis, MA | The Cape Codder Resort, JFK Ballroom, 1225 Iyanough Road, Route 132 & Bearse's Way. |
| June 16 | Portsmouth, NH | Sheraton Portsmouth Harborside Hotel, Harbor's Edge Room, 250 Market Street. |
| June 17 | North Dartmouth, MA | University of Massachusetts—Dartmouth, Woodland Common, 285 Old Westport Road. |
| June 19 | Mystic, CT | Mystic Aquarium, Main Exhibit Hall, 55 Coogan Boulevard. |

Dated: April 21, 2008.

**Daniel J. Basta,**

*Director, Office of National Marine Sanctuaries.*

[FR Doc. E8–9977 Filed 5–5–08; 8:45 am]

**BILLING CODE 3510–NK–P**

## DEPARTMENT OF COMMERCE

### National Oceanic and Atmospheric Administration

**RIN: 0648–XH68**

### Gulf of Mexico Fishery Management Council; Public Meeting

**AGENCY:** National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

**ACTION:** Notice of a public meeting.

**SUMMARY:** The Gulf of Mexico Fishery Management Council will convene a joint meeting of The Standing and Special Reef Fish SSCs (SSC).

**DATES:** The Joint Standing and Special Reef Fish SSC meeting will begin at 1:30 p.m. on Tuesday, May 27, 2008 and conclude by 3 p.m. on Thursday, May 29, 2008.

**ADDRESSES:** The meeting will be held at the Quorum Hotel, 700 N. Westshore Blvd., Tampa, FL 33609; telephone: (813) 289–8200.

*Council address*: Gulf of Mexico Fishery Management Council, 2203 North Lois Avenue, Suite 1100, Tampa, FL 33607.

**FOR FURTHER INFORMATION CONTACT:** Steven Atran, Population Dynamics Statistician; Gulf of Mexico Fishery Management Council; telephone: (813) 348–1630.

**SUPPLEMENTARY INFORMATION:** The Joint Standing and Special Reef Fish SSC will meet to review scientific information on the Gulf of Mexico gag and red grouper stocks, and to review draft Reef Fish Amendment 29 dealing with grouper and tilefish effort management. At the April 7–11, 2008 Council meeting, the Council heard an outside review of the gag stock assessment by Dr. Trevor Kenchington, Gadus Associates, in which it was suggested that overfishing of gag had ended in 2006. The Council also heard a review of the assessment from the Southeast Fisheries Science Center (SEFSC), along with updated indices of abundance which suggested that, after peaking in 2004, the gag and red grouper stock levels are again declining. The SSC will review and discuss the information from Dr. Kenchington and the SEFSC, and will advise the Council with regard to recent trends in abundance of gag and red grouper, current estimates of spawning stock biomass (SSB), current estimates of natural mortality, the extent to which reduced effort and/or reduced SSB are contributing to a reduction in landings, and recommendations for appropriate catch levels. The SSC will also review the appropriate baseline to use when determining percent reductions needed in harvest. If time permits, the SSC will also review a red grouper yield per recruit analyses which was prepared last fall by the SEFSC but has not yet been reviewed by the SSC.

The SSC will also review the alternatives in draft Reef Fish Amendment 29. This Amendment proposes to rationalize effort and reduce overcapacity in the commercial Gulf of Mexico grouper and tilefish fisheries in order to achieve and maintain optimum yield. Approaches being considered include permit endorsements and individual fishing quotas.

Copies of the agenda and other related materials can be obtained by calling (813) 348–1630.

Although other non-emergency issues not on the agenda may come before the SSCs for discussion, in accordance with the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), those issues may not be the subject of formal action during this meeting. Actions of the SSCs will be restricted to those issues specifically identified in the agenda and any issues arising after publication of this notice that require emergency action under Section 305(c) of the Magnuson-Stevens Act, provided the public has been notified of the Council's intent to take action to address the emergency.

### Special Accommodations

This meeting is physically accessible to people with disabilities. Requests for sign language interpretation or other auxiliary aids should be directed to Tina Trezza at the Council (see **ADDRESSES**) at least 5 working days prior to the meeting.

Dated: May 1, 2008.

**Tracey L. Thompson,**

*Acting Director, Office of Sustainable Fisheries, National Marine Fisheries Service.*

[FR Doc. E8–9913 Filed 5–5–08; 8:45 am]

**BILLING CODE 3510–22–S**

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## DEPARTMENT OF COMMERCE

### National Oceanic and Atmospheric Administration

**RIN: 0648–XH66**

### New England Fishery Management Council; Public Meeting

**AGENCY:** National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

**ACTION:** Notice of a public meeting.

**SUMMARY:** The New England Fishery Management Council (Council) is scheduling a public meeting of its Scallop Survey Advisory Panel in May, 2008 to consider actions affecting New England fisheries in the exclusive economic zone (EEZ). Recommendations from this group will be brought to the full Council for formal consideration and action, if appropriate.

**DATES:** This meeting will be held on Wednesday, May 21, 2008, at 9 a.m.

**ADDRESSES:** This meeting will be held at the Holiday Inn, 700 Myles Standish Boulevard, Taunton, MA 02780; telephone: (508) 823–0430; fax: (508) 880–6480.

*Council address*: New England Fishery Management Council, 50 Water Street, Mill 2, Newburyport, MA 01950.

**FOR FURTHER INFORMATION CONTACT:** Paul J. Howard, Executive Director, New England Fishery Management Council; telephone: (978) 465–0492.

**SUPPLEMENTARY INFORMATION:** The panel will discuss planning and coordination of calibration surveys to be conducted this summer on the R/V Hugh Sharp and other vessels. The Panel will also continue its evaluation of potential development and integration of new optical and acoustic technology into the annual resource survey, as well as discuss potential expansion of coordinated state and other surveys to augment the annual National Marine Fishery Service scallop survey. The panel may discuss other topics at their discretion.

Although non-emergency issues not contained in this agenda may come before this group for discussion, those issues may not be the subject of formal action during this meeting. Action will be restricted to those issues specifically identified in this notice and any issues arising after publication of this notice that require emergency action under section 305(c) of the Magnuson-Stevens Fishery Conservation and Management Act, provided the public has been notified of the Council's intent to take final action to address the emergency.

### Special Accommodations

This meeting is physically accessible to people with disabilities. Requests for sign language interpretation or other auxiliary aids should be directed to Paul J. Howard, Executive Director, at (978) 465–0492, at least 5 days prior to the meeting date.

**Authority:** 16 U.S.C. 1801 *et seq.*

Dated: May 1, 2008.

**Tracey L. Thompson,**

*Acting Director, Office of Sustainable Fisheries, National Marine Fisheries Service.*

[FR Doc. E8–9911 Filed 5–5–08; 8:45 am]

**BILLING CODE 3510–22–S**

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## DEPARTMENT OF COMMERCE

### National Oceanic and Atmospheric Administration

**RIN: 0648–XH67**

### New England Fishery Management Council; Public Meeting

**AGENCY:** National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

**ACTION:** Notice of a public meeting.

**SUMMARY:** The New England Fishery Management Council's Recreational Advisory Panel will meet to consider possible actions affecting New England groundfish fisheries in the exclusive economic zone (EEZ).

**DATES:** The meeting will be held on Tuesday, May 20, 2008, at 9:30 a.m.

**ADDRESSES:** The meeting will be held at the Holiday Inn, One Newbury Street, Peabody, MA; telephone: (978) 535–4600.

*Council address*: New England Fishery Management Council, 50 Water Street, Mill 2, Newburyport, MA 01950.

**FOR FURTHER INFORMATION CONTACT:** Paul J. Howard, Executive Director, New England Fishery Management Council; telephone: (978) 465–0492.

**SUPPLEMENTARY INFORMATION:** The items of discussion in the panel's agenda are as follows:

The Recreational Advisory Panel will meet to review draft Amendment 16 management measures and develop recommendations for the Groundfish Committee's consideration.Although non-emergency issues not contained in this agenda may come before this group for discussion, those issues may not be the subject of formal action during this meeting. Action will be restricted to those issues specifically identified in this notice and any issues arising after publication of this notice that require emergency action under section 305(c) of the Magnuson-Stevens Fishery Conservation and Management Act, provided the public has been notified of the Council's intent to take final action to address the emergency.

### Special Accommodations

This meeting is physically accessible to people with disabilities. Requests for sign language interpretation or other auxiliary aids should be directed to Paul J. Howard (see **ADDRESSES**) at least 5 days prior to the meeting date.

**Authority:** 16 U.S.C. 1801 *et seq.*

Dated: May 1, 2008.

**Tracey L. Thompson,**

*Acting Director, Office of Sustainable Fisheries, National Marine Fisheries Service.*

[FR Doc. E8–9912 Filed 5–5–08; 8:45 am]

**BILLING CODE 3510–22–S**

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## DEPARTMENT OF COMMERCE

### National Oceanic and Atmospheric Administration

**RIN: 0648–XH69**

### Pacific Fishery Management Council; Public Meeting

**AGENCY:** National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

**ACTION:** Notice of public meetings.

**SUMMARY:** The Pacific Fishery Management Council's (Council) Salmon Advisory Subpanel (SAS) and Salmon Technical Team (STT) will hold work sessions by telephone conference, which are open to the public, to develop recommendations for the June 2008 Council meeting.

**DATES:** The Salmon Advisory Subpanel telephone conference will be held Wednesday, June 4, 2008, from 1 p.m. to 4 p.m. The Salmon Technical Team

telephone conference will be held on Thursday, June 5, 2008, from 9 a.m. to 1 p.m.

**ADDRESSES:** A listening station for both teleconferences will be available at the Pacific Fishery Management Council, Small Conference Room, 7700 NE Ambassador Place, Suite 101, Portland, OR 97220–1384; telephone: (503) 820–2280.

*Council address*: Pacific Fishery Management Council, 7700 NE Ambassador Place, Suite 101, Portland, OR 97220–1384.

**FOR FURTHER INFORMATION CONTACT:** Mr. Chuck Tracy, Salmon Management Staff Officer, Pacific Fishery Management Council: (503) 820–2280.

**SUPPLEMENTARY INFORMATION:** The purpose of the work session is to review information in the Council's June meeting briefing book related to salmon management, and to develop comments and recommendations for consideration at the June 2008 Council meeting.Although non-emergency issues not contained in the meeting agenda may come before these groups for discussion, those issues may not be the subject of formal action during these meetings. Action will be restricted to those issues specifically listed in this notice and any issues arising after publication of this notice that require emergency action under section 305(c) of the Magnuson-Stevens Fishery Conservation and Management Act, provided the public has been notified of the Council's intent to take final action to address the emergency.

## Special Accommodations

These meetings are physically accessible to people with disabilities. Requests for sign language interpretation or other auxiliary aids should be directed to Ms. Carolyn Porter at (503) 820–2280 at least 5 days prior to the meeting date.

Dated: May 1, 2008.

**Tracey L. Thompson,**

*Acting Director, Office of Sustainable Fisheries, National Marine Fisheries Service.*

[FR Doc. E8–9914 Filed 5–5–08; 8:45 am]

**BILLING CODE 3510–22–S**

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## DEPARTMENT OF COMMERCE

### National Oceanic and Atmospheric Administration

**RIN 0648–XH58**

### Pacific Halibut Fishery; Guideline Harvest Levels for the Guided Recreational Halibut Fishery; Correction

**AGENCY:** National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

**ACTION:** Notice; correction.

**SUMMARY:** NMFS published a notice of Pacific halibut guideline harvest levels (GHLs) for the guided sport charter vessel fishery in the International Pacific Halibut Commission regulatory areas 2C and 3A in the **Federal Register** on February 5, 2008 (73 FR 6709). This notice contained an incorrect metric conversion for the Area 2C GHL.

**FOR FURTHER INFORMATION CONTACT:** Julie Scheurer, (907) 586–7356, or email at *julie.scheurer@noaa.gov*.

## Correction

In the **Federal Register** of February 5, 2008 (73 FR 6709), on page 6710, in the first column, second paragraph, correct the fourth sentence to read:

The corresponding GHLs are 931,000 lb (422.3 mt) in Area 2C, and 3,650,000 lb (1,655.6 mt) in Area 3A.

Dated: April 28, 2008.

**Emily H. Menashes**

*Acting Director, Office of Sustainable Fisheries , National Marine Fisheries Service.*

[FR Doc. E8–9869 Filed 5–5–08; 8:45 am]

**BILLING CODE 3510–22–S**

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## DEPARTMENT OF COMMERCE

### National Oceanic and Atmospheric Administration

**RIN 0648–ZB93**

### Vessel Monitoring Systems (VMS); Revision of the Enhanced Mobile Transmitter Unit (E-MTU) Reimbursement Program

**AGENCY:** National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

**ACTION:** Notice.

**SUMMARY:** NMFS revises the availability of grant funds for vessel owners and/or operators who have purchased an Enhanced Mobile Transmitter Unit (E-MTU) for the purpose of complying with fishery regulations requiring the use of Vessel Monitoring Systems (VMS). These funds will be used to reimburse vessel owners and/or operators for the purchase price of the E-MTU. This notice supersedes all previous notices on VMS MTU or E-MTU reimbursement.

**FOR FURTHER INFORMATION CONTACT:** For current listing information, questions regarding VMS installation or activation checklists, contact the VMS Support Center, NOAA Fisheries Office for Law Enforcement (OLE), 8484 Georgia Avenue, Suite 415, Silver Spring, MD 20910, phone 888–219–9228, fax 301–427–0049.

For questions regarding E-MTU type approval or information regarding the status of VMS systems being evaluated by NOAA for approval, contact Jonathan Pinkerton, National VMS Program Manager, phone 301–427–2300; fax 301–427–2055.

For questions regarding reimbursement applications contact Randy Fisher, Executive Director, Pacific States Marine Fisheries Commission (PSMFC), 205 SE Spokane Street, Suite 100, Portland, OR 97202, phone 503–595–3100, fax 503–595–3232.

**SUPPLEMENTARY INFORMATION:**

## I. Funding Opportunity Description

This reimbursement opportunity is available to fishing vessel owners and/or operators that have purchased an approved E-MTU device in order to comply with fishery regulations developed in accordance with 16 U.S.C. 1801 *et seq.* Only those vessel owners and/or operators purchasing an E-MTU for compliance with fishery management regulations are eligible for this funding opportunity. The reimbursable expense is the purchase price of a type-approved E-MTU for which the owner and/or operator holds a valid commercial fishing permit or license, not to exceed a maximum of $3,100.00.

## II. Eligibility

To be eligible to receive reimbursement vessel owners and/or operators must first purchase an E-MTU type-approved for a VMS required fishery from an authorized E-MTU dealer and receive a receipt of purchase from the authorized E-MTU dealer. The vessel owner and/or operator must have the E-MTU properly installed by an authorized dealer or installer on the vessel and activated utilizing a type-approved communications provider. Upon completion of the installation and activation process, the vessel owner and/or operator must contact the VMS

Support Center by calling 888–219–9228 to ensure the vessel is properly activated and registered in the VMS system. OLE does not consider a vessel in compliance with activation and registration procedures until the E-MTU signal has been received and processed by OLE.

Vessel owners and/or operators must not be in arrears with a payment owed to the Agency for a civil monetary penalty. Affected vessel owners and/or operators may become eligible for the reimbursement if the outstanding penalty is paid in full within 30 days of the denial of the reimbursement. After payment, vessel owners and/or operators must contact the VMS Support Center and provide documentation to support the defrayment of the penalty to receive a confirmation code for reimbursement purposes.

**III. Process**

Vessel owners and/or operators that have purchased an E-MTU, and have validated their compliance with the applicable regulations through OLE, may contact the PSMFC, 205 SE Spokane Street, Suite 100, Portland, Oregon 97202, phone 503–595–3100, fax 503–595–3232, for a reimbursement application. Once the application is received and completed by the vessel owner and/or operator, it must be returned to PSMFC along with proof of eligibility in order to qualify for an award. The minimum required proof of eligibility includes proof of authorized operation of a commercial fishing vessel in a VMS required fishery; purchase receipt from an authorized E-MTU dealer, purchase price of a type-approved E-MTU; and a valid compliance confirmation code issued by OLE. Additional documentation may be required for eligibility in particular fisheries. Vessel owners and/or operators should contact PSFMC for a complete listing documentation requirements.

Vessel owners and/or operators are not restricted as to which type-approved E-MTU device they can purchase. However, the amount of the reimbursement will be limited to the cost of the E-MTU type-approved for the fishery, and will not exceed a maximum of $3,100.00. Vessel owners and/or operators are encouraged to compare the features of all E-MTU devices type-approved for the VMS required fishery of interest and explore finance options prior to making a purchase decision. Reimbursement is limited to the cost of purchasing one E-MTU per registered vessel.

Dated: April 30, 2008.

**Samuel D. Rauch III**

*Deputy Assistant Administrator for Regulatory Programs, National Marine Fisheries Service.*

[FR Doc. E8–9994 Filed 5–5–08; 8:45 am]

BILLING CODE 3510–22–S

## DEPARTMENT OF DEFENSE

### Department of the Air Force

### U.S. Air Force Academy Board of Visitors Meeting

**AGENCY:** Department of the Air Force, U.S. Air Force Academy Board of Visitors.

**ACTION:** Notice of meeting.

**SUMMARY:** Pursuant to 10 U.S.C. 9355, the U.S. Air Force Academy (USAFA) Board of Visitors (BoV) will meet in the Russell Senate Office Building (note, this is a new meeting location), Washington, DC, on 8 May 2008. The purpose of this meeting is to review morale and discipline, curriculum, instruction, physical equipment, fiscal affairs, academic methods, and other matters relating to the Academy. Meeting sessions will begin at 9 a.m. on 8 May 2008, in room 232–A of the Russell Senate Office Building, Washington, DC.

Pursuant to 5 U.S.C. 552b, as amended, and 41 CFR 102–3.155, the Department of Defense has determined that a portion of this meeting shall be closed to the public. The Administrative Assistant to the Secretary of the Air Force, in consultation with the Office of the Air Force General Counsel, has determined that one portion of this meeting be closed to the public because it will involve matters covered by subsection (c)(6) of 5 U.S.C. 552b.

Public attendance at the open portions of this USAFA BoV meeting shall be accommodated on a first-come, first-served basis up to the reasonable and safe capacity of the meeting room. In addition, any member of the public wishing to provide input to the USAFA BoV should submit a written statement in accordance with 41 CFR 102–3.140(c) and section 10(a)(3) of the Federal Advisory Committee Act (FACA) and the procedures described in this paragraph. Written statements must address the following details: the issue, discussion, and a recommended course of action. Supporting documentation may also be included as needed to establish the appropriate historical context and provide any necessary background information. Written statements can be submitted to the Designated Federal Officer (DFO) at the address detailed below at any time. However, if a written statement is not received at least 10 days before the first day of the meeting which is the subject of this notice, then it may not be provided to, or considered by, the BoV until its next open meeting. The DFO will review all timely submissions with the BoV Chairperson and ensure they are provided to members of the BoV before the meeting that is the subject of this notice. For the benefit of the public, rosters that list the names of BoV members and any releasable materials presented during open portions of this BoV meeting shall be made available upon request.

If, after review of timely submitted written comments, the BoV Chairperson and DFO deem appropriate, they may choose to invite the submitter of the written comments to orally present their issue during an open portion of the BoV meeting that is the subject of this notice. Members of the BoV may also petition the Chairperson to allow specific persons to make oral presentations before the BoV. Any oral presentations before the BoV shall be in accordance with 41 CFR 102–3.140(c), section 10(a)(3) of the FACA, and this paragraph. The DFO and BoV Chairperson may, if desired, allot a specific amount of time for members of the public to present their issues for BoV review and discussion. Direct questioning of BoV members or meeting participants by the public is not permitted except with the approval of the DFO and Chairperson.

**FOR FURTHER INFORMATION CONTACT:** Or to attend this BoV meeting, contact Mr. Scotty Ashley, USAFA Programs Manager, Directorate of Airman Development and Sustainment, Deputy Chief of Staff, Manpower and Personnel, AF/A1DOA, 1040 Air Force Pentagon, Washington, DC 20330–1040, (703) 695–3594.

**Bao-Anh Trinh,**

*Air Force Federal Register Liaison Officer.*

[FR Doc. E8–9928 Filed 5–5–08; 8:45 am]

BILLING CODE 5001–05–P

## DEFENSE NUCLEAR FACILITIES SAFETY BOARD

### FOIA Fee Schedule Update

**AGENCY:** Defense Nuclear Facilities Safety Board.

**ACTION:** Notice.

**SUMMARY:** The Defense Nuclear Facilities Safety Board is publishing its annual update to the Freedom of

Information Act (FOIA) Fee Schedule pursuant to 10 CFR 1703.107(b)(6) of the Board's regulations.

**EFFECTIVE DATE:** May 1, 2008.

**FOR FURTHER INFORMATION CONTACT:** Brian Grosner, General Manager, Defense Nuclear Facilities Safety Board, 625 Indiana Avenue, NW., Suite 700, Washington, DC 20004–2901, (202) 694–7060.

**SUPPLEMENTARY INFORMATION:** The FOIA requires each Federal agency covered by the Act to specify a schedule of fees applicable to the processing of requests for agency records. 5 U.S.C. 552(a)(4)(A)(i). On March 15, 1991, the Board published for comment in the **Federal Register** its proposed FOIA Fee Schedule. 56 FR 11114. No comments were received in response to that notice, and the Board issued a final Fee Schedule on May 6, 1991.

Pursuant to 10 CFR 1703.107(b)(6) of the Board's regulations, the Board's General Manager will update the FOIA Fee Schedule once every 12 months. Previous Fee Schedule updates were published in the **Federal Register** and went into effect, most recently, on May 21, 2007, 72 FR 28477.

**Board Action**

Accordingly, the Board issues the following schedule of updated fees for services performed in response to FOIA requests:

DEFENSE NUCLEAR FACILITIES SAFETY BOARD SCHEDULE OF FEES FOR FOIA SERVICES

[Implementing 10 CFR 1703.107(b)(6)]

| | |
|---|---|
| Search or Review Charge | $72.00 per hour. |
| Copy Charge (paper) | $.12 per page, if done in-house, or generally available commercial rate (approximately $.10 per page). |
| Electronic Media | $5.00. |
| Copy Charge (audio cassette) | $3.00 per cassette. |
| Duplication of DVD | $25.00 for each individual DVD; $16.50 for each additional individual DVD. |
| Copy Charge for large documents (e.g., maps, diagrams) | Actual commercial rates. |

Dated: April 23, 2008.

**Brian Grosner,**

*General Manager.*

[FR Doc. E8–9955 Filed 5–5–08; 8:45 am]

BILLING CODE 3670–01–P

## DEPARTMENT OF EDUCATION

### Notice of Proposed Information Collection Requests

**AGENCY:** Department of Education.

**SUMMARY:** The IC Clearance Official, Regulatory Information Management Services, Office of Management, invites comments on the proposed information collection requests as required by the Paperwork Reduction Act of 1995.

**DATES:** Interested persons are invited to submit comments on or before July 7, 2008.

**SUPPLEMENTARY INFORMATION:** Section 3506 of the Paperwork Reduction Act of 1995 (44 U.S.C. chapter 35) requires that the Office of Management and Budget (OMB) provide interested Federal agencies and the public an early opportunity to comment on information collection requests. OMB may amend or waive the requirement for public consultation to the extent that public participation in the approval process would defeat the purpose of the information collection, violate State or Federal law, or substantially interfere with any agency's ability to perform its statutory obligations. The IC Clearance Official, Regulatory Information Management Services, Office of Management, publishes that notice containing proposed information collection requests prior to submission of these requests to OMB. Each proposed information collection, grouped by office, contains the following: (1) Type of review requested, e.g., new, revision, extension, existing or reinstatement; (2) Title; (3) Summary of the collection; (4) Description of the need for, and proposed use of, the information; (5) Respondents and frequency of collection; and (6) Reporting and/or Recordkeeping burden. OMB invites public comment.

The Department of Education is especially interested in public comment addressing the following issues: (1) Is this collection necessary to the proper functions of the Department; (2) will this information be processed and used in a timely manner; (3) is the estimate of burden accurate; (4) how might the Department enhance the quality, utility, and clarity of the information to be collected; and (5) how might the Department minimize the burden of this collection on the respondents, including through the use of information technology.

Dated: April 30, 2008.

**Angela C. Arrington,**

*IC Clearance Official, Regulatory Information Management Services, Office of Management.*

**Institute of Education Sciences**

*Type of Review:* New.

*Title:* Teachers' Use of Educational Technology in U.S. Public Schools.

*Frequency:* One time.

*Affected Public:* Individuals or household; State, Local, or Tribal Gov't, SEAs or LEAs.

*Reporting and Recordkeeping Hour Burden:*

*Responses:* 5,400.

*Burden Hours:* 2,100.

*Abstract:* This survey will collect information from a sample of 4,000 public elementary and secondary school teachers about their use of education technology. The survey will ask about teachers' use of technology in their teaching; their preparation to use these technologies; and how well prepared they feel to use these technologies.

Requests for copies of the proposed information collection request may be accessed from *http://edicsweb.ed.gov,* by selecting the ''Browse Pending Collections'' link and by clicking on link number 3677. When you access the information collection, click on ''Download Attachments'' to view. Written requests for information should be addressed to U.S. Department of Education, 400 Maryland Avenue, SW., LBJ, Washington, DC 20202–4537. Requests may also be electronically mailed to *ICDocketMgr@ed.gov* or faxed to 202–401–0920. Please specify the complete title of the information collection when making your request.

Comments regarding burden and/or the collection activity requirements should be electronically mailed to *ICDocketMgr@ed.gov.* Individuals who use a telecommunications device for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 1–800–877–8339.

[FR Doc. E8–9920 Filed 5–5–08; 8:45 am]

BILLING CODE 4000–01–P

## DEPARTMENT OF EDUCATION

### Submission for OMB Review; Comment Request

**AGENCY:** Department of Education.

**SUMMARY:** The IC Clearance Official, Regulatory Information Management Services, Office of Management, invites comments on the submission for OMB review as required by the Paperwork Reduction Act of 1995.

**DATES:** Interested persons are invited to submit comments on or before June 5, 2008.

**ADDRESSES:** Written comments should be addressed to the Office of Information and Regulatory Affairs, Attention: Education Desk Officer, Office of Management and Budget, 725 17th Street, NW., Room 10222, Washington, DC 20503. Commenters are encouraged to submit responses electronically by e-mail to *oira_submission@omb.eop.gov* or via fax to (202) 395–6974. Commenters should include the following subject line in their response ''Comment: [insert OMB number], [insert abbreviated collection name, e.g., ''Upward Bound Evaluation'']. Persons submitting comments electronically should not submit paper copies.

**SUPPLEMENTARY INFORMATION:** Section 3506 of the Paperwork Reduction Act of 1995 (44 U.S.C. Chapter 35) requires that the Office of Management and Budget (OMB) provide interested Federal agencies and the public an early opportunity to comment on information collection requests. OMB may amend or waive the requirement for public consultation to the extent that public participation in the approval process would defeat the purpose of the information collection, violate State or Federal law, or substantially interfere with any agency's ability to perform its statutory obligations. The IC Clearance Official, Regulatory Information Management Services, Office of Management, publishes that notice containing proposed information collection requests prior to submission of these requests to OMB. Each proposed information collection, grouped by office, contains the following: (1) Type of review requested, e.g., new, revision, extension, existing or reinstatement; (2) Title; (3) Summary of the collection; (4) Description of the need for, and proposed use of, the information; (5) Respondents and frequency of collection; and (6) Reporting and/or Recordkeeping burden. OMB invites public comment.

Dated: April 30, 2008.

**Angela C. Arrington,**

*IC Clearance Official, Regulatory Information Management Services, Office of Management.*

**Institute of Education Sciences**

*Type of Review:* Reinstatement.

*Title:* Adult ESL Literacy Impact Study.

*Frequency:* On occasion; weekly.

*Affected Public:* Individuals or household.

*Reporting and Recordkeeping Hour Burden:*

Responses: 2,427.

Burden Hours: 403.

*Abstract:* The Adult ESL Literacy Impact Study is an evaluation of the effectiveness of a literacy curriculum in improving the English reading and speaking skills of adult ESL learners who have low levels of literacy in their native language. This evaluation employs a random assignment design to compare the outcomes of adult learners who receive the literacy instruction to those who receive the instruction that is normally provided through adult education programs.

Requests for copies of the information collection submission for OMB review may be accessed from *http://edicsweb.ed.gov,* by selecting the ''Browse Pending Collections'' link and by clicking on link number 3580. When you access the information collection, click on ''Download Attachments '' to view. Written requests for information should be addressed to U.S. Department of Education, 400 Maryland Avenue, SW., LBJ, Washington, DC 20202–4537. Requests may also be electronically mailed to *ICDocketMgr@ed.gov* or faxed to 202–401–0920. Please specify the complete title of the information collection when making your request.

Comments regarding burden and/or the collection activity requirements should be electronically mailed to *ICDocketMgr@ed.gov.* Individuals who use a telecommunications device for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 1–800–877–8339.

[FR Doc. E8–9921 Filed 5–5–08; 8:45 am]

BILLING CODE 4000–01–P

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## DEPARTMENT OF EDUCATION

### Submission for OMB Review; Comment Request

**AGENCY:** Department of Education.

**SUMMARY:** The IC Clearance Official, Regulatory Information Management Services, Office of Management, invites comments on the submission for OMB review as required by the Paperwork Reduction Act of 1995.

**DATES:** Interested persons are invited to submit comments on or before June 5, 2008.

**ADDRESSES:** Written comments should be addressed to the Office of Information and Regulatory Affairs, Attention: Education Desk Officer, Office of Management and Budget, 725 17th Street, NW., Room 10222, Washington, DC 20503. Commenters are encouraged to submit responses electronically by e-mail to *oira_submission@omb.eop.gov* or via fax to (202) 395–6974. Commenters should include the following subject line in their response ''Comment: [insert OMB number], [insert abbreviated collection name, e.g., ''Upward Bound Evaluation'']. Persons submitting comments electronically should not submit paper copies.

**SUPPLEMENTARY INFORMATION:** Section 3506 of the Paperwork Reduction Act of 1995 (44 U.S.C. Chapter 35) requires that the Office of Management and Budget (OMB) provide interested Federal agencies and the public an early opportunity to comment on information collection requests. OMB may amend or waive the requirement for public consultation to the extent that public participation in the approval process would defeat the purpose of the information collection, violate State or Federal law, or substantially interfere with any agency's ability to perform its statutory obligations. The IC Clearance Official, Regulatory Information Management Services, Office of Management, publishes that notice containing proposed information collection requests prior to submission of these requests to OMB. Each proposed information collection, grouped by office, contains the following: (1) Type of review requested, e.g., new, revision, extension, existing or reinstatement; (2) Title; (3) Summary of the collection; (4) Description of the need for, and proposed use of, the information; (5) Respondents and frequency of collection; and (6) Reporting and/or Recordkeeping burden. OMB invites public comment.

Dated: April 30, 2008.

**Angela C. Arrington,**

*IC Clearance Official, Regulatory Information Management Services, Office of Management.*

**Institute of Education Sciences**

*Type of Review:* Revision.

*Title:* Integrated Postsecondary Education Data System (IPEDS), Web-Based Collection System.

*Frequency:* Annually.

*Affected Public:* Private Sector; not-for-profit institutions; businesses or

other for-profit; State, Local, or Tribal Gov't, SEAs or LEAs.

*Reporting and Recordkeeping Hour Burden:*

Responses: 52,040.

Burden Hours: 162,943.

*Abstract:* IPEDS is a Web-based system designed to collect basic data from all postsecondary institutions in the United States and the other jurisdictions. IPEDS allows NCES to describe the size of one of the nation's largest enterprises, postsecondary education, in terms of students enrolled, degrees and other awards earned, dollars expended, and staff employed. IPEDS incorporates technological improvements into the collection that enhance data submission and data availability. The IPEDS Web-based data collection system was implemented in 2000–01, and it collects basic data from approximately 6,600 postsecondary institutions in the United States and other jurisdictions that are eligible to participate in Title IV Federal financial aid programs. All Title IV institutions are required to respond to IPEDS (Section 490 of the Higher Education Amendments of 1992 (Pub. L. 102–325)). IPEDS allows other (non-Title IV) institutions to participate on a voluntary basis, but only about 200 elect to respond.

Requests for copies of the information collection submission for OMB review may be accessed from *http://edicsweb.ed.gov,* by selecting the ''Browse Pending Collections'' link and by clicking on link number 3568. When you access the information collection, click on ''Download Attachments'' to view. Written requests for information should be addressed to U.S. Department of Education, 400 Maryland Avenue, SW., LBJ, Washington, DC 20202–4537. Requests may also be electronically mailed to *ICDocketMgr@ed.gov* or faxed to 202–401–0920. Please specify the complete title of the information collection when making your request.

Comments regarding burden and/or the collection activity requirements should be electronically mailed to *ICDocketMgr@ed.gov.* Individuals who use a telecommunications device for the deaf (TDD) may call the Federal Information Relay Service (FIRS) at 1–800–877–8339.

[FR Doc. E8–9923 Filed 5–5–08; 8:45 am]

BILLING CODE 4000–01–P

## DEPARTMENT OF EDUCATION

### National Assessment Governing Board; Meeting

**AGENCY:** Department of Education, National Assessment Governing Board.

**ACTION:** Notice of Open Meeting and Partially Closed Meetings.

**SUMMARY:** The notice sets forth the schedule and proposed agenda of a forthcoming meeting of the National Assessment Governing Board. This notice also describes the functions of the Board. Notice of this meeting is required under Section 10(a)(2) of the Federal Advisory Committee Act. This document is intended to notify members of the general public of their opportunity to attend. Individuals who will need special accommodations in order to attend the meeting (i.e.; interpreting services, assistive listening devices, materials in alternative format) should notify Munira Mwalimu at 202–357–6938 or at *Munira.Mwalimu@ed.gov* no later than May 5, 2008. We will attempt to meet requests after this date, but cannot guarantee availability of the requested accommodation. The meeting site is accessible to individuals with disabilities.

**Dates: May 15–17, 2008**

**Times**

*May 15*

Committee Meeting

*Assessment Development Committee:* Open Session 1–2:30 p.m.

*Ad Hoc Committee:* Open Session—2:30 p.m. to 4:15 p.m.

*Executive Committee:* Open Session—4:30 p.m. to 5 p.m.; Closed Session—5 p.m. to 6 p.m.

*May 16*

*Full Board:* Open Session—8:30 a.m. to 9 a.m..; Closed Session—12 p.m. to 1 p.m.; Open Session—1 p.m. to 3:45 p.m.

Committee Meetings

*Assessment Development Committee:* Closed Session—9 a.m. to 11:30 a.m.; Open Session—11:30 a.m.–12 p.m.

*Committee on Standards, Design and Methodology:* Closed Session—9 a.m. to 10:30 p.m.; Open Session 10:30 a.m.—12 p.m.

*Reporting and Dissemination Committee:* Open Session—9 a.m. to 12 p.m.;

*May 17*

*Nominations Committee:* Closed Session—8:15 a.m. to 8:45 a.m.

*Full Board:* Open Session—9 a.m. to 12 p.m.

*Location:* Roosevelt Hotel, 45 East 45th Street and Madison Avenue, NewYork, NY 10017.

**FOR FURTHER INFORMATION CONTACT:** Munira Mwalimu, Operations Officer, National Assessment Governing Board, 800 North Capitol Street, NW., Suite 825, Washington, DC, 20002–4233, Telephone: (202) 357–6938.

**SUPPLEMENTARY INFORMATION:** The National Assessment Governing Board is established under section 412 of the National Education Statistics Act of 1994, as amended.

The Board is established to formulate policy guidelines for the National Assessment of Educational Progress (NAEP). The Board's responsibilities include selecting subject areas to be assessed, developing assessment specifications and frameworks, developing appropriate student achievement levels for each grade and subject tested, developing standards and procedures for interstate and national comparisons, developing guidelines for reporting and disseminating results, and releasing initial NAEP results to the public.

On Thursday May 15 from 1 p.m. to 2:30 p.m. the Assessment Development Committee will meet in open session. The Ad Hoc Committee on NAEP Testing and Reporting on Students with Disabilities and English Language Learners will meet in open session from 2:30 p.m. to 4:15 p.m. and the Executive Committee will meet in open session from 4:30 p.m. to 5 p.m. From 5 p.m. to 6 p.m. the Executive Committee will meet in closed session to receive a briefing from the National Center for Education Statistics on options for the National Assessment of Educational Progress (NAEP) contracts covering the 2008–2012 assessment years, based on funding for Fiscal Year 2010. The discussion of contract options and costs will address the implications for congressionally mandated goals and adherence to Board policies on NAEP assessments. This part of the meeting must be conducted in closed session because public discussion of this information would disclose independent government cost estimates and contracting options, adversely impacting the confidentiality of the contracting process. Public disclosure of information discussed would significantly impede implementation of the NAEP contract awards, and is therefore protected by exemption 9(B) of section 552b(c) of Title 5 U.S.C.

On May 16, the full Board will meet in open session from 8:30 a.m. to 9 a.m. The Board will approve the agenda and the March 2008 Board minutes.

Thereafter, the Governing Board will receive a report from the Executive Director of the Governing Board, and hear an update on the work of the National Center for Education Statistics (NCES).

On May 16, the Board's standing committees—the Assessment Development Committee, the Committee on Standards, Design and Methodology, and the Reporting and Dissemination Committee will meet from 9 a.m. to 12 p.m.

The Assessment Development Committee will meet in closed session from 9 a.m. to 11:30 a.m. on Friday, May 16, and in open session from 11:30 a.m. to noon. The closed session is required to allow the Committee to discuss procurements for developing new NAEP frameworks in world history and technological literacy; to receive a briefing on an NCES reading content alignment study; and to review secure NAEP science pilot items for the 2009 assessment. The meeting must be conducted in closed session to allow the Committee to discuss confidential procurement information involving statements of work for new NAEP frameworks; to review results of a reading content alignment study of secure NAEP items for the 2009 reading assessment, and to review secure science pilot items for grades 4, 8, and 12 for the 2009 NAEP assessment. Public disclosure of the framework procurement information, prior to release of the Request for Proposals, would provide unfair advantage to potential bidders present at the meeting. This would significantly impede implementation of the NAEP program, and is therefore protected by exemption 9(B) of section 552b(c) of Title 5 U.S.C. The reading content alignment discussion and review of science pilot items must be conducted in closed session as disclosure of proposed test items for the reading and science assessments would significantly impede implementation of the NAEP program, and is therefore protected by exemption 9(B) of section 522b(c) of Title 5 U.S.C. From 11:30 to noon the Committee will meet in open session.

The Committee on Standards, Design and Methodology will meet in closed session from 9 a.m. to 10:30 a.m. on Friday, May 16, and in open session from 10:30 a.m. to noon. The closed session is required to allow the Committee to discuss procurements for setting achievement levels on the 2009 NAEP subjects and trend implications for this work. The meeting must be conducted in closed session in order to allow the Committee to discuss confidential procurement options for structuring the work statements. Public disclosure of this information, prior to release of the Request for Proposals, would provide unfair advantage to potential bidders present at the meeting. This would significantly impede implementation of the NAEP program, and is therefore protected by exemption 9(B) of section 552b(c) of Title 5 U.S.C.

The Reporting and Dissemination Committee will meet in open session from 9 a.m.–12 p.m.

The full Board will meet in closed session on May 16 from 12 p.m. to 1 p.m. to receive a briefing from the National Center of Education Statistics on results of the National Indian Education Study conducted by NAEP which has not been released to the public. The Governing Board will be provided with embargoed data on the results of the Indian Education Study that cannot be discussed in an open meeting prior to their official release. The meeting must therefore be conducted in closed session as premature disclosure of data would significantly impede implementation of the NAEP program, and is therefore protected by exemption 9(B) of section 552b(c) of Title 5 U.S.C.

On May 16, from 1 p.m. to 3:45 p.m. the full Board will meet in open session to hear a presentation from the Commissioner, New York State Education Department. The Board will also hear a panel discussion on New York State and New York City Schools to address issues related to standards and assessments. The May 16 session of the Board meeting is scheduled to adjourn at 3:45 p.m.

On May 17, the Nominations Committee will meet in closed session from 8:15 a.m. to 8:45 a.m. to review and discuss confidential information regarding nominees received/submitted for Board vacancies for terms beginning on October 1, 2008. These discussions pertain solely to internal personnel rules and practices of an agency and will disclose information of a personal nature where disclosure would constitute an unwarranted invasion of personal privacy. As such, the discussions are protected by exemptions 2 and 6 of section 552b(c) of Title 5 U.S.C.

The full Board will meet in open session on May 17 from 9 a.m. to 12 p.m. to hear a presentation on ''Inside the NAEP Black Box: Unraveling NAEP's Psychometric Mysteries.'' From 10:15 a.m. to 12 p.m. the Board will receive and take action on Committee reports. The May 17, 2008, session of the Board meeting will adjourn at 12 p.m.

Detailed minutes of the meeting, including summaries of the activities of the closed sessions and related matters that are informative to the public and consistent with the policy of section 5 U.S.C. 552b(c) will be available to the public within 14 days of the meeting. Records are kept of all Board proceedings and are available for public inspection at the U.S. Department of Education, National Assessment Governing Board, Suite #825, 800 North Capitol Street, NW., Washington, DC, from 9 a.m. to 5 p.m. Eastern Standard Time, Monday through Friday.

*Electronic Access to This Document:* You may view this document, as well as all other documents of this Department published in the **Federal Register**, in text or Adobe Portable Document Format (PDF), on the Internet at the following site: *http://www.ed.gov/news/fedregister/index.html.* To use PDF you must have Adobe Acrobat Reader, which is available free at this site. If you have questions about using PDF, call the U.S. Government Printing Office (GPO), toll free at 1–888–293–6498; or in the Washington, DC, area at (202) 512–1530.

**Note:** The official version of this document is the document published in the **Federal Register**. Free Internet access to the official edition of the **Federal Register** and the Code of Federal Regulations is available on GPO Access at: *http://www.gpoaccess.gov/nara/index.html.*

Dated: May 1, 2008.

**Charles E. Smith,**

*Executive Director, National Assessment Governing Board, U.S. Department of Education.*

[FR Doc. E8–9946 Filed 5–5–08; 8:45 am]

BILLING CODE 4000–01–P

## ELECTION ASSISTANCE COMMISSION

### Sunshine Act Notice

**AGENCY:** United States Election Assistance Commission (EAC).

**ACTION:** Notice of Public Meeting Roundtable Discussion.

**DATE AND TIME:** Monday, May 5, 2008, 9 a.m.–2 p.m. (EST).

**PLACE:** United States Election Assistance Commission, 1225 New York, Ave, NW., Suite 150, Washington, DC 20005.

**AGENDA:** The Commission will host an interdisciplinary roundtable discussion of the Technical Guidelines Committee's (TGDC) recommended Voluntary Voting System Guidelines. The discussion will be focused upon the following topics: (1) The cost implications of the proposed VVSG; (2)

the effect of the new standards on the time in process for voting systems; (3) increasing the efficiency of testing; (4) the possible implementation time of the next iteration of the VVSG; (5) Innovation in voting technology; (6) Risks associated with voting system technology; (7) prioritizing the needed features of a voting system.

This meeting will be open to the public.

**PERSON TO CONTACT FOR INFORMATION:** Matthew Masterson, Telephone: (202) 566–3100.

**Thomas R. Wilkey,**

*Executive Director, U.S. Election Assistance Commission.*

[FR Doc. E8–9753 Filed 5–5–08; 8:45 am]

**BILLING CODE 6820–KF–M**

## DEPARTMENT OF ENERGY

### Bonneville Power Administration

**[BPA File No.: TRM–12]**

### 2012 Tiered Rate Methodology Proceeding; Public Hearings and Opportunities for Public Review and Comment

**Editorial Note:** FR Doc. E8–9572 was originally published at page 24059 in the issue of May 1, 2008. That document was inadvertently published prior to the requested publication date, as stated in an Office of the Federal Register correction notice published at 73 FR 24496, May 2, 2008. FR Doc. E8–9572 is being republished in its entirety in this issue of the **Federal Register**.

**AGENCY:** Bonneville Power Administration (BPA), Department of Energy (DOE).

**ACTION:** Notice of Proposed Tiered Rate Methodology.

**SUMMARY:** BPA is proposing to adopt a new tiered rate design for setting its Priority Firm Power (PF) rates beginning with the FY 2012–2013 rate period. The primary feature of this Tiered Rate Methodology (TRM) proposal is one rate tier (Tier 1) based on generation output and costs attributed to BPA's current Federal base system resources and a second rate tier (Tier 2) based on the generation and costs associated with newly acquired resources.

The TRM is part of BPA's effort to achieve the overall policy objectives of the Long-Term Regional Dialogue Policy (Policy). Under this Policy, BPA will offer 20-year Regional Dialogue Contracts to its Federal agency and public utility customers for power priced at a tiered PF rate. The TRM is intended to provide customers with a predictable and durable means by which to calculate BPA's PF tiered rate for the term of these contracts.

Determinations of specific rate levels applicable to these contracts will not be established in this proceeding. Rather the specific rate levels will be developed consistent with the TRM in the respective Pacific Northwest Electric Power Planning and Conservation Act (Northwest Power Act) section 7(i) rate proceedings during the term of this TRM. BPA intends to set the actual power rates on a two-year cycle throughout the term of the Regional Dialogue contracts beginning with the FY 2012–2013 rate period.

BPA is commencing this proceeding under section 7 of the Northwest Power Act to establish the TRM. Entities wishing to become a formal party to the proceeding must file a petition to intervene, notifying BPA in writing of their intention to do so in conformance with the requirements stated in this Notice.

**DATES:** Petitions to intervene must be received no later than 5 p.m., Pacific Daylight Time (PDT), on May 7, 2008. Proposed hearing dates are supplied in **SUPPLEMENTARY INFORMATION**, Part I.A. below. Non-party participants may make written comments between May 2, 2008, and July 10, 2008. Comments must be received by 5 p.m., PDT, on July 10, 2008, in order to be considered in the Record of Decision.

**ADDRESSES:** Petitions to intervene should be directed to Camille Blakely, Hearing Clerk, LP–7, Bonneville Power Administration, 905 NE 11th Avenue, Portland, OR 97232 or by e-mail to: *trm12rate@bpa.gov,* and must be received no later than 5 p.m., PDT, on May 7, 2008. In addition, a copy of the petition must be served concurrently on BPA's General Counsel directed to Peter J. Burger, LP–7, Office of General Counsel, Bonneville Power Administration, 905 NE 11th Avenue, Portland, OR 97232 or by e-mail to: *pjburger@bpa.gov*. (See Part III (A) for more information.) Written comments can be submitted online at BPA's Web site *http://www.bpa.gov/comment*, or by mail to: BPA Public Affairs, DKE–7, P.O. Box 14428, Portland, OR 97293–4428. Please identify written or electronic comments as ''TRM–12 Proceeding'' comments. Documents will be available for public viewing after May 9, 2008. The documents are available at: *http://www.bpa.gov/corporate/ratecase*, or at BPA's Public Information Center, BPA Headquarters Building, 1st Floor; 905 NE. 11th, Portland, Oregon, and will be provided to parties on a compact disk (CD) at the prehearing conference to be held on May 9, 2008, beginning at 1:30 p.m., Room 223, 911 NE. 11th, Portland, Oregon. Due to increased security requirements, attendees should allow additional time to enter the building and complete the required screening process. Photo identification will be required for entry.

**FOR FURTHER INFORMATION CONTACT:** Ms. Nita Burbank, Lead Public Affairs Specialist, Power Policy Development, PFP–6, P.O. Box 3621, Portland, OR 97208. Interested persons may also call 503–230–3458 or 1–800–622–4519 (toll-free).

**SUPPLEMENTARY INFORMATION:**

**Table of Contents**

Part I. Introduction and Procedural Background
Part II. Policy Guidance and Scope of Hearing
Part III. Public Participation
Part IV. The Tiered Rates Methodology

### Part I—Introduction and Procedural Background

Section 7(i) of the Northwest Power Act, 16 U.S.C. section 839e(i), requires that BPA's rates be established according to certain procedures. These procedures include, among other things: Publication of a notice of the proposed rates in the **Federal Register**; one or more hearings conducted as expeditiously as practicable by a Hearing Officer; public opportunity to provide both oral and written views related to the proposed rates; opportunity to offer refutation or rebuttal of submitted material; and a decision by the Administrator based on the record. This proceeding is governed by section 1010 of BPA's Rules of Procedure Governing Rate Hearings, 51 FR 7611 (1986) (BPA Hearing Procedures). These procedures implement the statutory section 7(i) requirements.

Section 1010.7 of the BPA Hearing Procedures prohibits *ex parte* communications. The *ex parte* rule applies to all BPA and DOE employees and contractors. Except as provided below, any outside communications with BPA and/or DOE personnel regarding BPA's rate case by other Executive Branch agencies, Congress, existing or potential BPA customers (including tribes), and nonprofit or public interest groups are considered outside communications and are subject to the *ex parte* rule. The general rule does not apply to communications relating to: (1) Matters of procedure only (the status of the rate case, for example); (2) exchanges of data in the course of business or under the Freedom of Information Act; (3) requests for factual information; (4) matters BPA is

responsible for under statutes other than the ratemaking provisions; or (5) matters that all parties agree may be made on an *ex parte* basis. The ex parte rule remains in effect until the Administrator's Final ROD is issued, which is scheduled to occur on or about September 29, 2008.

The Bonneville Project Act, 16 U.S.C. section 832, the Flood Control Act of 1944, 16 U.S.C. 825s, the Federal Columbia River Transmission System Act, 16 U.S.C. section 838, and the Northwest Power Act, 16 U.S.C. section 839, provide guidance regarding BPA ratemaking. The Northwest Power Act requires BPA to set rates that are sufficient to recover, in accordance with sound business principles, the cost of acquiring, conserving and transmitting electric power, including amortization of the Federal investment in the FCRPS over a reasonable period of years, and certain other costs and expenses incurred by the Administrator.

BPA's proposed TRM is available for viewing and downloading on BPA's Web site at *http://www.bpa.gov/corporate/ratecase* and is discussed in Part IV below. BPA will be conducting a formal rate proceeding open to rate case parties. Interested parties must file petitions to intervene in order to take part in the formal hearing as discussed in Part III (A) below. A proposed schedule for the formal process is as follows. The Hearing Officer will establish a final schedule at the prehearing conference.

| | |
|---|---|
| Prehearing/BPA Direct Case | 05/09/08 |
| Clarification | 05/14–15/08 |
| Motions to Strike | 05/16/08 |
| Data Request Deadline | 05/16/08 |
| Answers to Motions to Strike | 05/22/08 |
| Data Response Deadline | 05/22/08 |
| Parties File Direct Cases | 06/13/08 |
| Clarification | 06/18–19/08 |
| Motions to Strike | 06/20/08 |
| Data Request Deadline | 06/20/08 |
| Answers to Motions to Strike | 06/26/08 |
| Data Response Deadline | 06/26/08 |
| Litigants File Rebuttal | 07/10/08 |
| Close of Participant Comments | 07/10/08 |
| Clarification | 07/14–15/08 |
| Motions to Strike | 07/16/08 |
| Data Request Deadline | 07/16/08 |
| Answers to Motions to Strike | 07/22/08 |
| Data Response Deadline | 07/22/08 |
| Cross-Examination | 07/24–25/08 |
| Initial Briefs Filed | 08/04/08 |
| Oral Argument | 08/07/08 |
| Draft ROD Issued | 09/02/08 |
| Briefs on Exceptions | 09/08/08 |
| Final ROD and Final TRM Issued | 09/29/08 |

## Part II—Policy Guidance and Scope of Hearing

### *A. Overview and Background*

The Regional Dialogue process began in April 2002 when a group of BPA's Pacific Northwest electric utility customers submitted a joint customer proposal to BPA that addressed both near-term and long-term contract and rate issues. Since then, BPA, the Northwest Power and Conservation Council (Council), customers, and other interested parties have worked on these near- and long-term issues. Considering the depth and complexity of many of these issues, BPA determined that it would address the issues in two phases. The first phase of the Regional Dialogue, referred to as the Near-Term Policy, addressed issues that had to be resolved in order to replace power rates that expired in September 2006. *See* Bonneville Power Administration's Policy for Power Supply Role for Fiscal Years 2007–2011 (February 2005). The issues in the second phase were addressed in BPA's Long-Term Regional Dialogue Final Policy and Record of Decision, which were published on July 19, 2007. The Long-Term Regional Dialogue Final Policy is expected to be implemented through new power sales contracts and the TRM, which will be established in this rate case.

This proposed TRM provides for a two-tiered PF rate design applicable to firm requirements power service for public utility customers that sign a Regional Dialogue Contract that provides for tiered rates. The TRM establishes a predictable and durable means by which to calculate BPA's PF tiered rate, beginning in FY 2012 when power deliveries commence. Tiered rate design differentiates between the costs of service associated with Tier 1 System Resources and the cost associated with additional amounts of power needed to serve any remaining portion of public utility customers' Net Requirement (Tier 2). Rate Period High Water Marks (RHWM), determined according to this TRM, are the basis for determining how much of each customer's Net Requirement purchase from BPA is charged Tier 1 rates and how much may be charged Tier 2 rates. This TRM specifies how rates will be developed that ensure to the maximum extent possible that customers purchasing at Tier 1 rates do not pay any of the costs of serving other public utility customers' above RHWH load. Each customer may purchase up to its RHWM, limited by its Net Requirement, at Tier 1 rates. To meet its above-RHWM load, a customer may purchase Federal power, procure non-Federal power or a combination of the two. To the extent a customer purchases Federal power for its above-RHWM load, a PF Tier 2 rate(s) will be applied to this portion of their Federal power service.

### *B. Scope of the TRM–12 Proceeding*

This section provides guidance to the Hearing Officer as to those matters that are within the scope of the rate case, and those that are outside the scope.

#### 1. Regional Dialogue Policy and Contracts

The design and scope of the power products and issues related to the terms and conditions of the Regional Dialogue contract are not determined in rate cases nor are they established by the TRM. Pursuant to section 1010.3(f) of BPA Hearing Procedures, the Administrator hereby directs the Hearing Officer to exclude from the record any materials attempted to be submitted or arguments attempted to be made in the proceeding that seek to address the design and scope of the power products and terms and conditions of the Regional Dialogue contracts.

#### 2. DSI Service

The decision regarding whether BPA will provide service and/or benefits to its Direct Service Industry (DSI) customers beginning in FY 2012 will be made in a supplemental process as outlined in the Long-Term Regional Dialogue Final Policy. It should be noted that while the decision on DSI service and the manner, if any of such service will be determined in a separate process, the allocation of any cost associated with any DSI service under the TRM is a proper issue in this proceeding. Pursuant to section 1010.3(f) of the BPA Hearing Procedures, the Administrator directs the Hearing Officer to exclude from the record any materials attempted to be submitted or arguments attempted to be made in the proceeding that seek to in any way address the decision to serve the DSIs and the nature and manner of such service, except as any such material is relevant to the issue of the appropriate allocation of any cost associated with any DSI service under the TRM.

### *C. The National Environmental Policy Act*

#### 1. Potential Environmental Impacts

As discussed in this section, potential environmental impacts of BPA's proposed actions are assessed through appropriate analysis and documentation under the NEPA. The NEPA process is conducted separately from BPA's formal rate proceedings. Therefore, pursuant to

section 1010.3(f) of the BPA Hearing Procedures, the Administrator directs the Hearing Officer to exclude from the record all evidence and argument that seek in any way to address the potential environmental impacts of the proposed TRM.

2. The National Environmental Policy Act

BPA is in the process of assessing the potential environmental effects that could result from implementation of its proposed TRM, consistent with the National Environmental Policy Act (NEPA). Because this proposal implicates BPA's ongoing business practices, BPA is reviewing the proposal in light of BPA's Business Plan Environmental Impact Statement (Business Plan EIS), completed in June 1995 (DOE/EIS–0183), as refreshed April 2007. This EIS evaluates environmental impacts potentially resulting from a range of business plan alternatives that can be varied by applying policy modules, including modules specifically designed for varying tiered rate methodologies. Any combination of alternative policy modules should allow BPA to balance its costs and revenues.

In August 1995, the BPA Administrator issued a Record of Decision (Business Plan ROD) that adopted the Market-Driven Alternative from the Business Plan EIS. This alternative was selected because, among other reasons, it allows BPA to: (1) Recover costs through rates; (2) competitively market BPA's products and services; (3) develop rates that meet customer needs for clarity and simplicity; (4) continue to meet BPA's legal mandates; and (5) avoid adverse environmental impacts.

In April 2007, BPA completed and issued a Supplement Analysis to the Business Plan EIS. The Supplement Analysis found that the Business Plan EIS's relationship-based and policy-level analysis of potential environmental impacts from BPA's business practices remains valid, and that BPA's current business practices are still consistent with BPA's Market-Driven approach. The Business Plan EIS and ROD thus continue to provide a sound basis for making determinations under NEPA concerning BPA's business-related decisions.

Because the proposed TRM likely would assist BPA in accomplishing the goals identified in the Business Plan ROD, the proposal appears consistent with these aspects of the Market-Driven Alternative. In addition, the proposed TRM is similar to the types of tiered rate constructs identified and considered in the Business Plan EIS; thus, implementation of this proposal would not be expected to result in significantly different environmental impacts from those examined in the Business Plan EIS. Therefore, BPA expects that the proposed TRM likely will fall within the scope of the Market-Driven Alternative that was evaluated in the Business Plan EIS and adopted in the Business Plan ROD.

As part of the Administrator's ROD that will be prepared for the proposed TRM, BPA may tier its decision under NEPA to the Business Plan ROD. However, depending upon the ongoing environmental review, BPA may, instead, issue another appropriate NEPA document. During the public review and comment period for the TRM, persons interested in submitting comments regarding its potential environmental effects may do so by submitting comments to Katherine Pierce, NEPA Compliance Officer, KEC–4, Bonneville Power Administration, 905 NE 11th Avenue, Portland, OR 97232. Any such comments received by July 10, 2008, will be considered by BPA's NEPA compliance staff in the NEPA process that will be conducted for the proposed TRM.

**Part III—Public Participation**

*A. Distinguishing Between ''Participants'' and ''Parties''*

BPA distinguishes between ''participants in'' and ''parties to'' the section 7(i) hearing process. Apart from the formal hearing process, BPA will accept comments, views, opinions, and information from ''participants,'' who are defined in the BPA Hearing Procedures as persons who may submit comments without being subject to the duties of, or having the privileges of, parties. Participants' written and oral comments will be made a part of the official record and considered by the Administrator when making his decision. Participants are not entitled to participate in the prehearing conference; may not cross-examine parties' witnesses, seek discovery, or serve or be served with documents; and are not subject to the same procedural requirements as parties.

The views of participants are important to BPA. Written comments by participants will be included in the record if they are received by 5 p.m., PDT, on July 10, 2008. Written views, supporting information, questions, and arguments should be submitted to BPA Public Affairs at the address listed in the Addresses section.

Persons wishing to become a party to BPA's rate proceeding must notify BPA in writing and file a Petition to Intervene with the Hearing Officer. Petitioners may designate no more than two representatives upon whom service of documents will be made. Petitions to Intervene must state the name and address of the person requesting party status and the person's interest in the hearing. Petitions to Intervene as parties in the rate proceeding are due to the Hearing Officer by 5 p.m., PDT, on May 7, 2008, and should be directed as stated in Addresses section above.

Petitioners must explain their interests in sufficient detail to permit the Hearing Officer to determine whether they have a relevant interest in the proceeding. Pursuant to section 1010.1(d) of BPA Hearing Procedures, BPA waives the requirement in section 1010.4(d) that an opposition to an intervention petition must be filed and served 24 hours before the prehearing conference. Any opposition to an intervention petition may instead be made at the prehearing conference. Any party, including BPA, may oppose a petition for intervention. Persons who have been denied party status in any past BPA rate proceeding shall continue to be denied party status unless they establish a significant change of circumstances. All timely applications will be ruled on by the Hearing Officer. Late interventions are strongly disfavored.

*B. Developing the Record*

The record will comprise, among other things, verbal and written comments made by participants, including the transcripts of all hearings, any written materials submitted by the parties, documents developed by BPA staff, and other materials accepted into the record by the Hearing Officer. Written comments by participants will be included in the record if they are received by 5 p.m., PDT, on July 10, 2008. The Hearing Officer will then review the record, supplement it if necessary, and will certify the record to the Administrator for decision.

The Administrator will adopt the final TRM based on the entire record, which includes the record certified by the Hearing Officer, as described above. The basis for the final TRM first will be expressed in the Administrator's Draft ROD. Parties will have an opportunity to respond to the Draft ROD as provided in the BPA Hearing Procedures. The Administrator will serve copies of the Final ROD on all parties. The ROD will also be publicly available at *http://www.bpa.gov/corporate/ratecase*.

BPA must continue to meet with customers in the ordinary course of business during the rate case. To

comport with the rate case procedural rule prohibiting ex parte communications, BPA will provide the prescribed notice of meetings involving rate case issues in order to permit the opportunity for participation by all rate case parties. These meetings may be held on very short notice. Consequently, parties should be prepared to devote the necessary resources to participate fully in every aspect of the rate proceeding and attend meetings any day during the course of the rate case.

**Part IV—The Tiered Rate Methodology**

The TRM establishes a predictable and durable means by which to tier and calculate BPA's Priority Firm (PF) power rate. Specific determinations of rate levels will be made in each general rate case in a manner consistent with the TRM in the respective section 7(i) proceedings applicable during the term of this TRM. Tiered PF rates will be implemented beginning in FY 2012 when power deliveries under new contracts commence. The TRM provides for a two-tiered PF rate design applicable to requirements firm power service for those customers that participate in the contracts that provide for tiered rate service. Tiered rate design differentiates between the costs of service associated with the existing Federal system (Tier 1) and the cost associated with additional amounts of power needed to serve the remaining portion of customers' net requirements (Tier 2). This TRM specifies how rates will be developed that assure to the extent possible that customers will be able to purchase Tier 1 power that does not include the costs of serving other customers' load growth.

The TRM addresses: (1) How to determine a customer's eligibility to purchase power at Tier 1 rates; (2) how to determine the amount of power to be charged at Tier 1 rates; (3) how costs will be allocated to the PF Tier 1 and Tier 2 rate pools; (4) how rates for Tier 1 and Tier 2 sales will be designed; and (5) how rates for resource support services will be designed.

The cost allocation and rate design methods will be implemented in each BPA power rate case during the term of the Regional Dialogue contracts, except under limited circumstances. Power rates will be calculated on a two-year cycle under the TRM.

Rate Period High Water Marks (RHWM), determined according to this TRM, are the basis for separating which portion of each customer's net requirements purchase from BPA is charged Tier 1 rates and which is charged Tier 2 rates. Each customer may purchase up to its RHWM, limited by its net requirement, at Tier 1 rates. To meet its above-RHWM load, a customer may purchase Federal power, procure non-Federal power or both. To the extent a customer purchases Federal power to meet its above RHWH load, a PF Tier 2 rate will be applied to the Federal power service.

BPA will limit the sum of all RHWMs to the planned firm power output of the existing Federal system as it is currently defined, plus a limited amount of augmentation.

For purposes of the TRM, BPA will calculate the projected amounts of Federal system resource output, contract purchases, and contract obligations necessary for developing tiered rates for each rate period. The projected output of resources assigned to each rate tier will be used in the determination of RHWMs, which will be incorporated in the ratemaking process.

In each applicable rate proposal, BPA will allocate all of its costs into three cost pools for determining Tier 1 rates and a number of Tier 2 cost pools corresponding to the Tier 2 rate alternatives that customers have selected.

In each rate case, BPA will define risk mitigation mechanisms and set rates to support BPA's then-current Agency financial risk standard(s). The Agency financial risk standard(s) is (are) set in BPA's 10-Year Financial Plan, or its successor, subject to any required review in a 7(i) rate proceeding.

The proposed TRM includes a rate design for Tier 1 rates that includes three components: Customer charges, demand rates and load shaping rates. However, there are significant changes in the billing determinants to which these rates apply from BPA's current rate structure. There will be three customer charges, only two of which will be applicable to any particular product selected by the customer. The Composite Customer Charge and the Non-Slice Customer Charge will be applicable to purchasers of the Load Following and Block products, including the block portion of the Slice/Block product. The Composite Customer Charge and the Slice Customer Charge will be applicable to purchasers of the Slice portion of the Slice/Block product. The Demand Charge will apply to Load Following and Block with Shaping Capacity purchasers and will be charged to a portion of each customer's maximum hourly load in each month. The Load Shaping Charge will apply to Load Following and Block purchasers and will be charged to a portion of each customer's energy load during each diurnal period of each month.

BPA's proposed TRM is available for viewing and downloading on BPA's Web site at *http://www.bpa.gov/corporate/ratecase*. Copies will also be available for viewing at BPA's Public Information Center, BPA Headquarters Building, 1st Floor, 905 NE 11th Avenue, Portland, Oregon.

Issued this 24th day of April, 2008.

**Stephen J. Wright,**

*Administrator and Chief Executive Officer.*

[FR Doc. E8–9572 Filed 4–30–08; 8:45 am]

**Editorial Note:** FR Doc. E8–9572 was originally published at page 24059 in the issue of May 1, 2008. That document was inadvertently published prior to the requested publication date, as stated in an Office of the Federal Register correction notice published at 73 FR 24496, May 2, 2008. FR Doc. E8–9572 is being republished in its entirety in this issue of the **Federal Register**.

[FR Doc. E8–9953 Filed 5–5–08; 8:45 am]

BILLING CODE 1505–02–P

## DEPARTMENT OF ENERGY

### Federal Energy Regulatory Commission

### Combined Notice of Filings #1

April 29, 2008.

Take notice that the Commission has received the following Natural Gas Pipeline Rate and Refund Report filings:

*Docket Numbers:* RP02–361–069.

*Applicants:* Gulfstream Natural Gas System, LLC.

*Description:* Gulfstream Natural Gas System, LLC submits its FERC Gas Tariff, Original Volume 1, an Original Sheet 8,02k reflecting an effective date of 5/1/08.

*Filed Date:* 04/25/2008.

*Accession Number:* 20080428–0178.

*Comment Date:* 5 p.m. Eastern Time on Wednesday, May 7, 2008.

*Docket Numbers:* RP04–119–007.

*Applicants:* Dominion Transmission, Inc.

*Description:* Dominion Transmission, Inc., submits Annual Report of Operational Sales of Gas.

*Filed Date:* 04/11/2008.

*Accession Number:* 20080411–5040.

*Comment Date:* 5 p.m. Eastern Time on Monday May 5, 2008.

*Docket Numbers:* RP07–174–000.

*Applicants:* Columbia Gulf Transmission Company.

*Description:* Columbia Gulf Transmission Company informs FERC that the Eighth Revised Sheet 216 et al. of its FERC Gas Tariff, Second Revised Volume 1, will not be moved into effect until August 1, 2008.

*Filed Date:* 04/25/2008.

*Accession Number:* 20080425–0096.
*Comment Date:* 5 p.m. Eastern Time on Wednesday, May 7, 2008.

*Docket Numbers:* RP08–326–000.
*Applicants:* Northern Border Pipeline Company.
*Description:* Northern Border Pipeline Company submits Fourth Revised Sheet 107 et al. as part of its FERC Gas Tariff, First Revised Volume 1, to be effective May 27, 2008.
*Filed Date:* 04/25/2008.
*Accession Number:* 20080428–0176.
*Comment Date:* 5 p.m. Eastern Time on Wednesday, May 7, 2008.

*Docket Numbers:* RP08–327–000.
*Applicants:* Trailblazer Pipeline Company, LLC.
*Description:* Trailblazer Pipeline Company, LLC submits a report on the refund of penalty revenues.
*Filed Date:* 04/25/2008.
*Accession Number:* 20080428–0177.
*Comment Date:* 5 p.m. Eastern Time on Wednesday, May 7, 2008.

Any person desiring to intervene or to protest in any of the above proceedings must file in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211 and § 385.214) on or before 5 p.m. Eastern time on the specified comment date. It is not necessary to separately intervene again in a subdocket related to a compliance filing if you have previously intervened in the same docket. 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. Anyone filing a motion to intervene or protest must serve a copy of that document on the Applicant. In reference to filings initiating a new proceeding, interventions or protests submitted on or before the comment deadline need not be served on persons other than the Applicant.

The Commission encourages electronic submission of protests and interventions in lieu of paper, using the FERC Online links at *http://www.ferc.gov.* To facilitate electronic service, persons with Internet access who will eFile a document and/or be listed as a contact for an intervenor must create and validate an eRegistration account using the eRegistration link. Select the eFiling link to log on and submit the intervention or protests.

Persons unable to file electronically should submit an original and 14 copies of the intervention or protest to the Federal Energy Regulatory Commission, 888 First St., NE., Washington, DC 20426.

The filings in the above proceedings are accessible in the Commission's eLibrary system by clicking on the appropriate link in the above list. They are also available for review in the Commission's Public Reference Room in Washington, DC. There is an eSubscription link on the Web site that enables subscribers to receive e-mail notification when a document is added to a subscribed docket(s). For assistance with any FERC Online service, please e-mail *FERCOnlineSupport@ferc.gov,* or call (866) 208–3676 (toll free). For TTY, call (202) 502–8659.

**Nathaniel J. Davis, Sr.,**
*Deputy Secretary.*
[FR Doc. E8–9901 Filed 5–5–08; 8:45 am]
**BILLING CODE 6717–01–P**

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## DEPARTMENT OF ENERGY

### Federal Energy Regulatory Commission

### Combined Notice of Filings #1

April 30, 2008.

Take notice that the Commission has received the following Natural Gas Pipeline Rate and Refund Report filings:

*Docket Numbers:* RP96–389–089.
*Applicants:* Columbia Gulf Transmission Company.
*Description:* Columbia Gulf Transmission Company submits negotiated rate agreement re FTS–1 Service Agreement 01116 between Columbia Gulf Transmission Company and National Fuel Marketing, LLC dated 04/24/2008.
*Filed Date:* 04/28/2008.
*Accession Number:* 20080429–0255.
*Comment Date:* 5 p.m. Eastern Time on Monday, May 12, 2008.

*Docket Numbers:* RP00–305–036.
*Applicants:* CenterPoint Energy-Mississippi River Transmission.
*Description:* CenterPoint Energy-Mississippi River Transmission Corporation submits an amended negotiated rate agreement between MRT and CenterPoint Energy Services, Inc.
*Filed Date:* 04/28/2008.
*Accession Number:* 20080429–0253.
*Comment Date:* 5 p.m. Eastern Time on Monday, May 12, 2008.

*Docket Numbers:* RP00–305–037.
*Applicants:* CenterPoint Energy-Mississippi River Transmission.
*Description:* CenterPoint Energy-Mississippi River Transmission Corporation submits an amended negotiated rate agreement between MRT and Laclede Energy Resources, Inc.
*Filed Date:* 04/28/2008.
*Accession Number:* 20080429–0254.
*Comment Date:* 5 p.m. Eastern Time on Monday, May 12, 2008.

*Docket Numbers:* RP02–361–070.
*Applicants:* Gulf Stream Natural Gas System, LLC.
*Description:* Gulfstream Natural Gas System LLC submits Original Sheet 8.021, to FERC Gas Tariff, Original Volume 1, reflecting an effective date of May 1, 2008.
*Filed Date:* 04/28/2008.
*Accession Number:* 20080429–0250.
*Comment Date:* 5 p.m. Eastern Time on Monday, May 12, 2008.

*Docket Numbers:* RP08–221–001.
*Applicants:* Crossroads Pipeline Company.
*Description:* Crossroads Pipeline Company submits response to 3/27/08 letter re Crossroads to provide additional information by April 28, 2008.
*Filed Date:* 04/28/2008.
*Accession Number:* 20080429–0251.
*Comment Date:* 5 p.m. Eastern Time on Monday, May 12, 2008.

*Docket Numbers:* RP08–223–001.
*Applicants:* Equitrans, L.P.
*Description:* Equitrans, LP submits responses to Data Requests issued by the Commission's Letter Order of 3/27/08.
*Filed Date:* 04/28/2008.
*Accession Number:* 20080430–0001.
*Comment Date:* 5 p.m. Eastern Time on Monday, May 12, 2008.

*Docket Numbers:* RP08–247–001.
*Applicants:* Ozark Gas Transmission, L.L.C.
*Description:* Ozark Gas Transmission, LLC submits Substitute Seventh Revised Sheet 13, Substitute Original Sheet 14A and 39A to FERC Gas Tariff, Original Volume 1, to be effective 4/1/08.
*Filed Date:* 04/28/2008.
*Accession Number:* 20080429–0257.
*Comment Date:* 5 p.m. Eastern Time on Monday, May 12, 2008.

*Docket Numbers:* RP08–328–000.
*Applicants:* Columbia Gas Transmission Corporation.
*Description:* Columbia Gulf Transmission Company submits First Revised Sheet 500C to its FERC Gas Tariff, Second Revised Volume 1 effective date of April 4, 2008.
*Filed Date:* 04/28/2008.
*Accession Number:* 20080429–0256.
*Comment Date:* 5 p.m. Eastern Time on Monday, May 12, 2008.

*Docket Numbers:* RP08–329–000.
*Applicants:* Discovery Gas Transmission LLC.
*Description:* Discovery Gas Transmission LLC submits Section 27 Revenue Credit Report for 2007.
*Filed Date:* 04/29/2008.
*Accession Number:* 20080430–5039.
*Comment Date:* 5 p.m. Eastern Time on Monday, May 12, 2008.

*Docket Numbers:* RP08–330–000.

*Applicants:* Discovery Gas Transmission LLC.

Description: Discovery Gas Transmission LLC submits its Imbalance Cash-out Activity Report for the year ended December 31, 2007 pursuant to the Terms and Conditions in Discovery's FERC Gas Tariff.

*Filed Date:* 04/29/2008.

*Accession Number:* 20080430–5040.

*Comment Date:* 5 p.m. Eastern Time on Monday, May 12, 2008.

*Docket Numbers:* RP08–333–000.

*Applicants:* Black Marlin Pipeline Company.

*Description:* Annual Cash Out Report of Black Marlin Pipeline Company.

*Filed Date:* 04/29/2008.

*Accession Number:* 20080430–5041.

*Comment Date:* 5 p.m. Eastern Time on Monday, May 12, 2008.

Any person desiring to intervene or to protest in any of the above proceedings must file in accordance with Rules 211 and 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.211 and § 385.214) on or before 5 p.m. Eastern time on the specified comment date. It is not necessary to separately intervene again in a subdocket related to a compliance filing if you have previously intervened in the same docket. 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. Anyone filing a motion to intervene or protest must serve a copy of that document on the Applicant. In reference to filings initiating a new proceeding, interventions or protests submitted on or before the comment deadline need not be served on persons other than the Applicant.

The Commission encourages electronic submission of protests and interventions in lieu of paper, using the FERC Online links at *http://www.ferc.gov.* To facilitate electronic service, persons with Internet access who will eFile a document and/or be listed as a contact for an intervenor must create and validate an eRegistration account using the eRegistration link. Select the eFiling link to log on and submit the intervention or protests.

Persons unable to file electronically should submit an original and 14 copies of the intervention or protest to the Federal Energy Regulatory Commission, 888 First St. NE., Washington, DC 20426.

The filings in the above proceedings are accessible in the Commission's eLibrary system by clicking on the appropriate link in the above list. They are also available for review in the Commission's Public Reference Room in Washington, DC. There is an eSubscription link on the Web site that enables subscribers to receive e-mail notification when a document is added to a subscribed dockets(s). For assistance with any FERC Online service, please e-mail *FERCOnlineSupport@ferc.gov.* or call (866) 208–3676 (toll free). For TTY, call (202) 502–8659.

**Nathaniel J. Davis, Sr.,**

*Deputy Secretary.*

[FR Doc. E8–9965 Filed 5–5–08; 8:45 am]

BILLING CODE 6717–01–P

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## DEPARTMENT OF ENERGY

### Federal Energy Regulatory Commission

**[Docket No. EL08–59–000]**

### ConocoPhillips Company, Complainant v. Entergy Services, Inc., Respondent; Notice of Complaint

April 29, 2008.

Take notice that on April 24, 2008, pursuant to section 206 of the Federal Power Act and Rule 206 of the Commission's Rules of Practice, ConocoPhillips Company (Complainant) filed a formal complaint against Entergy Services, Inc. (Respondent) alleging that the Respondent annulled two transmission service agreements in a manner that violated the Commission's policy and the Respondent's open access transmission tariff.

The Complainant has requested fast track processing of the complaint.

The Complainant states that a copy of the complaint has been served on the Respondent.

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. The Respondent's answer and all interventions, or protests must be filed on or before the comment date. The Respondent's answer, motions to intervene, and protests must be served on the Complainants.

The Commission encourages electronic submission of protests and interventions in lieu of paper using the ''eFiling'' link at *http://www.ferc.gov.* Persons unable to file electronically should submit an original and 14 copies of the protest or intervention to the Federal Energy Regulatory Commission, 888 First Street, NE., Washington, DC 20426.

This filing is accessible on-line at *http://www.ferc.gov,* using the ''eLibrary'' link and is available for review in the Commission's Public Reference Room in Washington, DC. There is an ''eSubscription'' link on the Web site that enables subscribers to receive e-mail notification when a document is added to a subscribed docket(s). For assistance with any FERC Online service, please e-mail *FERCOnlineSupport@ferc.gov,* or call (866) 208–3676 (toll free). For TTY, call (202) 502–8659.

*Comment Date:* 5 p.m. Eastern Time on May 14, 2008.

**Kimberly D. Bose,**

*Secretary.*

[FR Doc. E8–9902 Filed 5–5–08; 8:45 am]

BILLING CODE 6717–01–P

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## DEPARTMENT OF ENERGY

### Federal Energy Regulatory Commission

**[Docket No. DI08–6–000]**

### Green Valleys Association; Notice of Declaration of Intention and Soliciting Comments, Protests, and/or Motions To Intervene

April 29, 2008.

Take notice that the following application has been filed with the Commission and is available for public inspection:

a. *Application Type:* Declaration of Intention.

b. *Docket No:* DI08–6–000.

c. *Date Filed:* April 17, 2008.

d. *Applicant:* Green Valleys Association.

e. *Name of Project:* Welkinweir Micro Hydro Project.

f. *Location:* The proposed Welkinweir Micro Hydro Project will be located on an unnamed stream at the Welkinweir Arboretum near the town of Pottsville, Chester County, Pennsylvania.

g. *Filed Pursuant to:* Section 23(b)(1) of the Federal Power Act, 16 U.S.C. 817(b).

h. *Applicant Contact:* Victoria Laubach, Director, Green Valleys Association, 1368 Prizer Road, Pottstown, PA 19465; telephone: (610) 469–7543; fax: (610) 469–2218; e-mail *http://www.welkinweir.arboretum@verizon.net.*

i. *FERC Contact:* Any questions on this notice should be addressed to

Henry Ecton, (202) 502–8768, or e-mail address: *henry.ecton@ferc.gov.*

j. *Deadline for Filing Comments, Protests, and/or Motions:* May 30, 2008.

All documents (original and eight copies) should be filed with: Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission, 888 First Street, NE., Washington, DC 20426. Comments, protests, and/or interventions may be filed electronically via the Internet in lieu of paper. See 18 CFR 385.2001(a)(1)(iii) and the instructions on the Commission's Web site at *http://www.ferc.gov* under the e-Filing link.

Please include the docket number (DI08–6–000) on any comments, protests, and/or motions filed.

k. *Description of Project:* The proposed Welkinweir Micro Hydro Project will include: (1) An approximately 100-foot-long, 6-inch-diameter PVC pipe, leading from an unnamed farm pond to an underground 4-foot-wide, 3-foot-deep, 8-foot-long concrete powerhouse containing two 350-watt turbines; (2) an approximately 5-foot-long, 8-inch-diameter PVC pipe that returns the water to an unnamed stream; (3) an 800-foot-long underground transmission cable, which conveys the power produced to a bank of batteries; and (4) appurtenant facilities. The proposed project will not be connected to an interstate grid and will not occupy any tribal or federal lands.

When a Declaration of Intention is filed with the Federal Energy Regulatory Commission, the Federal Power Act requires the Commission to investigate and determine if the interests of interstate or foreign commerce would be affected by the project. The Commission also determines whether or not the project: (1) Would be located on a navigable waterway; (2) would occupy or affect public lands or reservations of the United States; (3) would utilize surplus water or water power from a government dam; or (4) if applicable, has involved or would involve any construction subsequent to 1935 that may have increased or would increase the project's head or generating capacity, or have otherwise significantly modified the project's pre-1935 design or operation.

l. *Locations of the Application:* Copies of this filing are on file with the Commission and are available for public inspection. This filing may be viewed on the web at *http://www.ferc.gov* using the ''eLibrary'' link, select ''Docket#'' and follow the instructions. For assistance, please contact FERC Online Support at *FERCOnlineSupport@ferc.gov* or toll-free at (866) 208–3676, or TTY, contact (202) 502–8659.

m. Individuals desiring to be included on the Commission's mailing list should so indicate by writing to the Secretary of the Commission.

n. *Comments, Protests, or Motions To Intervene:* Anyone may submit comments, a protest, or a motion to intervene in accordance with the requirements of Rules of Practice and Procedure, 18 CFR 385.210, .211, .214. In determining the appropriate action to take, the Commission will consider all protests or other comments filed, but only those who file a motion to intervene in accordance with the Commission's Rules may become a party to the proceeding. Any comments, protests, or motions to intervene must be received on or before the specified comment date for the particular application.

o. *Filing and Service of Responsive Documents:* Any filings must bear in all capital letters the title ''COMMENTS'', ''PROTESTS'', AND/OR ''MOTIONS TO INTERVENE'', as applicable, and the Docket Number of the particular application to which the filing refers. A copy of any motion to intervene must also be served upon each representative of the Applicant specified in the particular application.

p. *Agency Comments:* Federal, state, and local agencies are invited to file comments on the described application. A copy of the application may be obtained by agencies directly from the Applicant. If an agency does not file comments within the time specified for filing comments, it will be presumed to have no comments. One copy of an agency's comments must also be sent to the Applicant's representatives.

**Kimberly D. Bose,**

*Secretary.*

[FR Doc. E8–9903 Filed 5–5–08; 8:45 am]

**BILLING CODE 6717–01–P**

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## DEPARTMENT OF ENERGY

## Federal Energy Regulatory Commission

**[Docket No. ER02–2001–007; Docket No. ER07–430–000; Docket No. ER07–591–000]**

## Electric Quarterly Reports; Dunhill Power, L.P.; Exel Power Sources, LLC; Order on Intent To Revoke Market-Based Rate Authority

Issued April 30, 2008.

Before Commissioners: Joseph T. Kelliher, Chairman; Suedeen G. Kelly, Marc Spitzer, Philip D. Moeller, and Jon Wellinghoff.

1. Section 205 of the Federal Power Act (FPA), 16 U.S.C. 824d (2000), and 18 CFR part 35 (2005), require, among other things, that all rates, terms, and conditions of jurisdictional services be filed with the Commission. In Order No. 2001, the Commission revised its public utility filing requirements and established a requirement for public utilities, including power marketers, to file Electric Quarterly Reports summarizing the contractual terms and conditions in their agreements for all jurisdictional services (including market-based power sales, cost-based power sales, and transmission service) and providing transaction information (including rates) for short-term and long-term power sales during the most recent calendar quarter.[1]

2. Commission staff's review of the Electric Quarterly Report submittals has revealed that two utilities with authority to sell electric power at market-based rates have failed to file their Electric Quarterly Reports for more than one quarter. This order notifies these public utilities that their market-based rate authorizations will be revoked unless they comply with the Commission's requirements within 15 days of the date of issuance of this order.

3. In Order No. 2001, the Commission stated that,

> [i]f a public utility fails to file a[n] Electric Quarterly Report (without an appropriate request for extension), or fails to report an agreement in a report, that public utility may forfeit its market-based rate authority and may be required to file a new application for market-based rate authority if it wishes to resume making sales at market-based rates.[2]

4. The Commission further stated that,

> [o]nce this rule becomes effective, the requirement to comply with this rule will supersede the conditions in public utilities' market-based rate authorizations, and failure to comply with the requirements of this rule will subject public utilities to the same consequences they would face for not satisfying the conditions in their rate authorizations, including possible revocation of their authority to make wholesale power sales at market-based rates.[3]

5. Pursuant to these requirements, the Commission has revoked or withdrawn the market-based rate tariffs of several

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[1] *Revised Public Utility Filing Requirements,* Order No. 2001, 67 FR 31043, FERC Stats. & Regs. ¶ 31,127 (April 25, 2002), *reh'g denied,* Order No. 2001–A, 100 FERC ¶ 61,074, *reconsideration and clarification denied,* Order No. 2001–B, 100 FERC ¶ 61,342, *order directing filings,* Order No. 2001–C, 101 FERC ¶ 61,314 (2002).

[2] Order No. 2001 at P 222.

[3] *Id.* at P 223.

market-based rate sellers that failed to submit their Electric Quarterly Reports.[4]

6. Commission staff's review of the Electric Quarterly Report submittals identified two public utilities with authority to sell power at market-based rates that failed to file Electric Quarterly Reports through the fourth quarter of 2007. Commission staff contacted these entities to remind them of their regulatory obligations.[5] None of the public utilities listed in the caption of this order has met those obligations.[6]

| Respondent | Last quarter filed |
|---|---|
| Dunhill Power, L.P. ... | 2007, Quarter 2 |
| Exel Power Sources, L.L.C. | Never Filed |

Accordingly, this order notifies these public utilities that their market-based rate authorizations will be revoked unless they comply with the Commission's requirements within 15 days of the issuance of this order.

7. In the event that either of the above-captioned market-based rate sellers has already filed its Electric Quarterly Reports in compliance with the Commission's requirements, its inclusion herein is inadvertent. Such market-based rate seller is directed, within 15 days of the date of issuance of this order, to make a filing with the Commission identifying itself and providing details about its prior filings that establish that it complied with the Commission's Electric Quarterly Report filing requirements.

8. If either of the above-captioned market-based rate sellers does not wish to continue having market-based rate authority and does not foresee entering into any contracts to sell power at market-based rates, it may file a notice of cancellation with the Commission pursuant to section 205 of the FPA to cancel its market-based rate tariff and end its obligation to submit further Electric Quarterly Reports.

*The Commission orders:*

(A) Within 15 days of the date of issuance of this order, each public utility listed in the caption of this order shall file with the Commission all delinquent Electric Quarterly Reports. If a public utility fails to make this filing, the Commission will revoke the public utility's authority to sell power at market-based rates and terminate its electric market-based rate tariff. The Secretary is hereby directed, upon expiration of the filing deadline in this order, to promptly issue a notice, effective on the date of issuance, listing the public utilities whose tariffs have been revoked for failure to comply with the requirements of this order and the Commission's Electric Quarterly Report filing requirements.

(B) The Secretary is hereby directed to publish this order in the **Federal Register**.

By the Commission.

**Kimberly D. Bose,**

*Secretary.*

[FR Doc. E8–9906 Filed 5–5–08; 8:45 am]

BILLING CODE 6717–01–P

[4] *See Electric Quarterly Reports,* 115 FERC ¶ 61,073 (2006) (April 2006 Revocation Order), *Electric Quarterly Reports,* 114 FERC ¶ 61,171 (2006) (February 2006 Revocation Order); *Electric Quarterly Reports,* 107 FERC ¶ 61,310 (2004); *Notice of Revocation of Market-Based Rate Tariffs,* 69 Fed. Reg. 57,679 (September 27, 2004); *Electric Quarterly Reports,* 105 FERC ¶ 61,219 (2003); and *Electric Quarterly Reports,* 104 FERC ¶ 61,139 (2003).

[5] *See Dunhill, L.P.,* Docket No. ER07–430–000 (February 13, 2008) (unpublished letter order); *Exel Power Sources,* LLC, Docket No. ER07–591–000 (February 13, 2008) (unpublished letter order).

[6] According to the Commission's records, the companies subject to this order last filed their Electric Quarterly Reports in the quarters and years shown below: See table near footnote 6 reference.

## DEPARTMENT OF ENERGY

### Federal Energy Regulatory Commission

**[Docket Nos. RM05–25–000; RM05–17–000]**

### Preventing Undue Discrimination and Preference in Transmission Service; Notice of Extension of Time

April 29, 2008.

On April 17, 2008, North American Electric Reliability Corporation (NERC) submitted an additional request for an extension of time for public utilities to modify reliability standards related to the calculation of Available Transfer Capability (ATC) in compliance with Order No. 890 and Order No. 693, currently required by May 9, 2008.[1] NERC states that five of the ATC-related reliability standards (MOD–001, MOD–008, MOD–028, MOD–029 and MOD–030) will be completed by August 29, 2008 and expects that work on the sixth reliability standard related to Capacity Benefit Margin (MOD–004) will be competed by November 21, 2008. NERC explains that this additional time is needed to adequately address the concerns raised by the industry regarding the need to fully vet and vote for these reliability standards.

Upon consideration, notice is hereby given that public utilities are granted an extension of time to modify, working through NERC, the reliability standards related to the calculation of ATC as follows: MOD–001, MOD–008, MOD–028, MOD–029, and MOD–030 shall be submitted on or before August 29, 2008 and MOD–004 shall be submitted on or before November 21, 2008. Public utilities are also granted an extension of time to and including November 27, 2008, to develop, through the North American Energy Standards Board (NAESB), business practices that support the revisions to the NERC reliability standards MOD–001, MOD–008, MOD–028, MOD–029, and MOD–030 and an extension of time to and including February 19, 2009, to develop, through NAESB, business practices that complement the revisions to the NERC reliability standard MOD–004.

**Kimberly D. Bose,**

*Secretary.*

[FR Doc. E8–9905 Filed 5–5–08; 8:45 am]

BILLING CODE 6717–01–P

[1] *See* Notice of Extension of Time, Docket Nos. RM05–17–000, *et al.* (Dec. 6, 2007).

## DEPARTMENT OF ENERGY

### Federal Energy Regulatory Commission

**[Docket No. CP08–96–000]**

### Arlington Storage Company, LLC; Notice of Intent To Prepare an Environmental Assessment for the Proposed Thomas Corners Storage Project and Request for Comments on Environmental Issues

April 29, 2008.

The staff of the Federal Energy Regulatory Commission (FERC or Commission) will prepare an environmental assessment (EA) that will discuss the environmental impacts of the Thomas Corners Storage Project involving construction and operation of underground natural gas storage, three pipeline lateral facilities, and three interconnections by Arlington Storage Company, LLC (Arlington) in Steuben County, New York. The EA will be used by the Commission in its decision-making process to determine whether the project is in the public convenience and necessity.

This notice announces the opening of the scoping process the Commission will use to gather input from the public and interested agencies on the project. Your input will help determine which issues need to be evaluated in the EA. Please note that the scoping period will close on May 29, 2008. Details on how to submit comments are provided in the Public Participation section of this notice.

This notice is being sent to affected landowners; federal, state, and local government agencies; elected officials; Native American tribes; other interested

parties; and local libraries and newspapers. State and local government representatives are asked to notify their constituents of this proposed project and to encourage them to comment on their areas of concern.

A fact sheet prepared by the FERC entitled ''An Interstate Natural Gas Facility On My Land? What Do I Need To Know?'' addresses a number of typically asked questions, including the use of eminent domain and how to participate in the Commission's proceedings. It is available for viewing on the FERC Internet Web site (*http://www.ferc.gov*).

**Summary of the Proposed Project**

Arlington proposes to:

- Develop up to 10 injection/withdrawal wells with a total working gas capacity of 7 billion cubic feet (Bcf);
- Develop up to two observation wells;
- Construct 1.7 miles of gathering pipeline;
- Construct and operate a compressor station housing two gas-powered nominal 3,550 horsepower reciprocating engines;
- Construct about 8.1 miles of 12-inch-diameter pipeline (Thomas Corners West Lateral);
- Use an existing 7.5-mile-long, 8-inch-diameter pipeline (Thomas Corners South Lateral); and
- Construct three meter and regulator stations and interconnections with Columbia Gas Transmission Corporation (Columbia), Tennessee Gas Pipeline Company (Tennessee), and Corning Natural Gas Company (Corning).

The compressor station and storage field facilities would require 27.0 acres for construction and operation. Construction of the Thomas Corners West Lateral would disturb 69.1 acres during construction, and about 35.0 acres would be maintained as newly acquired permanent pipeline right-of-way. Construction of the Columbia and Tennessee Meter and Regulator Stations would disturb 0.9 acre and .06 acre, respectively, and 0.2 acre and 0.3 acre would be permanently maintained for these two meter and regulator stations, respectively. A site for the Corning Meter and Regulator Station has not been selected at this time.

The purpose of the project is to provide additional gas storage that will be capable of withdrawing and delivering gas at a rate of up to 140 Dekatherms per day (Dth/d) and of receiving and injecting gas at a rate of up to 70 Dth/d. The Project would incorporate three interconnections that would link it with three existing natural gas pipeline facilities.

The general location of the proposed facilities is shown in Appendix 1.[1]

**The EA Process**

We[2] are preparing this EA to comply with the National Environmental Policy Act (NEPA) which requires the Commission to take into account the environmental impact that could result if it authorizes Arlington's proposal. By this notice, we are also asking federal, state, and local agencies with jurisdiction and/or special expertise with respect to environmental issues to formally cooperate with us in the preparation of the EA. Agencies that would like to request cooperating status should follow the instructions for filing comments provided below.

NEPA also requires the FERC to discover and address concerns the public may have about proposals. This process is referred to as ''scoping.'' The main goal of the scoping process is to focus the analysis in the EA on the important environmental issues. By this Notice of Intent, we are requesting public comments on the scope of the issues to address in the EA. All comments received are considered during the preparation of the EA.

The EA will discuss impacts that could occur as a result of the construction and operation of the proposed project under these general headings:

- geology and soils;
- land use and visual quality;
- cultural resources;
- vegetation and wildlife (including threatened and endangered species);
- air quality and noise;
- reliability and safety;
- water resources.

We will also evaluate possible alternatives to the proposed project or portions of the project, where necessary, and make recommendations on how to lessen or avoid impacts on the various resource areas.

Our independent analysis of the issues will be in the EA. Depending on the comments received during the scoping process, the EA may be published and mailed to federal, state, and local agencies, public interest groups, interested individuals, affected landowners, newspapers, libraries, and the Commission's official service list for this proceeding. A comment period will be allotted for review if the EA is published. We will consider all comments on the EA before we make our recommendations to the Commission.

To ensure your comments are considered, please carefully follow the instructions in the Public Participation section below.

**Public Participation**

You can make a difference by providing us with your specific comments or concerns about the project. By becoming a commentor, your concerns will be addressed in the EA and considered by the Commission. You should focus on the potential environmental effects of the proposal, alternatives to the proposal including alternative compressor station sites and pipeline routes, and measures to avoid or lessen environmental impact. The more specific your comments, the more useful they will be. Please carefully follow these instructions to ensure that your comments are received in time and properly recorded:

- Send an original and two copies of your letter to: Kimberly D. Bose, Secretary, Federal Energy Regulatory Commission, 888 First St., NE., Room 1A, Washington, DC 20426;
- Label one copy of the comments for the attention of Gas Branch 1, PJ–11.1;
- Reference Docket No. CP08–96–000; and
- Mail your comments so that they will be received in Washington, DC on or before May 29, 2008.

Please note that the Commission strongly encourages electronic filing of any comments or interventions or protests to this proceeding. See 18 Code of Federal Regulations 385.2001(a)(1)(iii) and the instructions on the Commission's Internet Web site at *http://www.ferc.gov* under the link to ''Documents and Filings'' and ''eFiling.'' eFiling is a file attachment process and requires that you prepare your submission in the same manner as you would if filing on paper, and save it to a file on your hard drive. New eFiling users must first create an account by clicking on ''Sign up'' or ''eRegister.'' You will be asked to select the type of filing you are making. This filing is considered a ''Comment on Filing.'' In addition, there is a ''*Quick Comment*'' option available, which is an easy method for interested persons to submit text only comments on a project. The Quick-Comment User Guide can be viewed at *http://www.ferc.gov/docs-*

[1] The appendices referenced in this notice are not being printed in the **Federal Register**. Copies of all appendices are available on the Commission's *Web site* at the ''eLibrary'' link or from the Commission's Public Reference Room, 888 First Street, NE., Washington, DC 20426, or call (202) 502–8371. For instructions on connecting to eLibrary refer to the ''Additional Information'' section of this notice. Copies of the appendices were sent to all those receiving this notice in the mail. Requests for detailed maps of the proposed facilities should be made directly to Arlington.

[2] ''We,'' ''us,'' and ''our'' refer to the environmental staff of the FERC's Office of Energy Projects.

*filing/efiling/quick-comment-guide.pdf*. Quick Comment does not require a FERC eRegistration account; however, you will be asked to provide a valid email address. All comments submitted under either eFiling or the Quick Comment option are placed in the public record for the specified docket.

**Becoming an Intervenor**

In addition to involvement in the EA scoping process, you may want to become an official party to the proceeding known as an ''intervenor.'' Intervenors play a more formal role in the process. Among other things, intervenors have the right to receive copies of case-related Commission documents and filings by other intervenors. Likewise, each intervenor must send one electronic copy (using the Commission's eFiling system) or 14 paper copies of its filings to the Secretary of the Commission and must send a copy of its filings to all other parties on the Commission's service list for this proceeding.

If you want to become an intervenor you must file a motion to intervene according to Rule 214 of the Commission's Rules of Practice and Procedure (18 CFR 385.214) (see Appendix 2) [3]. Only intervenors have the right to seek rehearing of the Commission's decision.

Affected landowners and parties with environmental concerns may be granted intervenor status upon showing good cause by stating that they have a clear and direct interest in this proceeding which would not be adequately represented by any other parties. You do not need intervenor status to have your environmental comments considered.

**Environmental Mailing List**

As described above, we may mail the EA for comment. If you are interested in receiving an EA for review and/or comment, please return the Environmental Mailing List form (Appendix 3). If you do not return the Environmental Mailing List form, you will be taken off the mailing list. All individuals who provide written comments will remain in our environmental mailing list for this project.

**Additional Information**

Additional information about the project is available from the Commission's Office of External Affairs, at 1–866–208–FERC or on the FERC Internet Web site (*http://www.ferc.gov*) using the ''eLibrary'' link. Click on the eLibrary link, then on ''General Search'' and enter the docket number excluding the last three digits in the Docket Number field. Be sure you have selected an appropriate date range. For assistance, please contact FERC Online Support at *FercOnlineSupport@ferc.gov* or toll free at 1–866–208–3676, or for TTY, contact (202) 502–8659. The eLibrary link also provides access to the texts of formal documents issued by the Commission, such as orders, notices, and rulemakings.

In addition, the Commission now offers a free service called eSubscription which allows you to keep track of all formal issuances and submittals in specific dockets. This can reduce the amount of time you spend researching proceedings by automatically providing you with notification of these filings, document summaries and direct links to the documents. Go to *http://www.ferc.gov/esubscribenow.htm*.

Finally, any public meetings or site visits will be posted on the Commission's calendar located at *http://www.ferc.gov/EventCalendar/EventsList.aspx* along with other related information.

**Kimberly D. Bose,**

*Secretary.*

[FR Doc. E8–9904 Filed 5–5–08; 8:45 am]

**BILLING CODE 6717–01–P**

[3] Interventions may also be filed electronically via the Internet in lieu of paper. See the previous discussion on filing comments electronically.

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## DEPARTMENT OF ENERGY

### Western Area Power Administration

### Findings for the Sacramento Area Voltage Support Project (DOE/EIS–0323S1)

**AGENCY:** Western Area Power Administration, DOE.

**ACTION:** Notice of Record of Decision and Floodplain and Wetland Statement.

**SUMMARY:** Western Area Power Administration (Western) plans to construct a new double-circuit, 230-kilovolt (kV) transmission line, approximately 31 miles long, between Western's O'Banion Substation and the area just south of the Sacramento Municipal Utility District's (SMUD) Elverta Substation and reconstruct SMUD's existing 230 kV/115 kV transmission line between SMUD's Elverta and Natomas substations. The Sacramento Area Voltage Support (SVS) Project (Project) would be located in Sutter, Placer, and Sacramento counties in California. Western proposes to build the Project to provide needed transmission system additions and upgrades to maintain system voltage stability, reliability, and security. Western evaluated seven action alternatives and the No Action Alternative in its supplemental environmental impact statement (SEIS). Of these, Alternative B was selected as both the Preferred Alternative and the Environmentally Preferred Action Alternative.

**FOR FURTHER INFORMATION CONTACT:** Mr. Steve Tuggle, Natural Resource Manager, Western Area Power Administration, Sierra Nevada Region, 114 Parkshore Drive, Folsom, CA 95630–4710; telephone (916) 353–4549; e-mail *tuggle@wapa.gov.* Copies of the SEIS are available from Mr. Tuggle. For information about the Department of Energy (DOE) National Environmental Policy Act (NEPA) process, contact Ms. Carol M. Borgstrom, Director, Office of NEPA Policy and Compliance, GC–20, U.S. Department of Energy, 1000 Independence Avenue, SW., Washington, DC 20585; telephone (800) 472–2756.

**SUPPLEMENTARY INFORMATION:** Western issued the SVS draft and final environmental impact statement (EIS) in November 2002 and September 2003, and issued a record of decision (ROD) on January 12, 2004. In 2005, SMUD and the City of Roseville agreed to provide funding for Western to proceed with additional environmental review of the SVS Project and prepare an SEIS and environmental impact report (EIR).

Western markets and transmits electricity from multi-use, Federal water projects. Western sells wholesale electricity to more than 70 preference customers in central and northern California and Nevada. Western's Sierra Nevada Region (SNR) includes the greater Sacramento, California, area. SNR maintains and operates numerous substations and more than 1,200 miles of transmission lines. These transmission lines are interconnected to other greater Sacramento-area transmission system owners, Load Serving Entities, and utilities, including the Sacramento Municipal Utility District (SMUD) and the City of Roseville (Roseville). Western's system contributes to and is affected by voltage stability, reliability, and security of the greater Sacramento area transmission system. Transmission system studies in 2001/2002 and 2006/2007 showed that the existing transmission lines in the greater Sacramento area have reached their maximum power transfer limits for serving the area's energy needs, particularly in the northern portion of the greater Sacramento area. Load Serving Entities and utilities in the area have taken interim measures to avoid

potential uncontrolled system-wide outages. As a last resort, operators may be required to implement post-contingency load shedding and/or rotating blackouts. These measures provide limited voltage stability improvement and are not always available or preferred. In addition, load shedding and rotating blackouts can have a significant negative impact on utility customers. The transmission system studies showed that additions and upgrades are needed to maintain system voltage stability, reliability, and security in accordance with NERC and WECC Planning/Operations Reliability Standards, and for Western to continue to meet its legislative and contractual requirements. The resulting system additions and upgrades would provide additional power-importing capabilities to the greater Sacramento area.

Western, in coordination with SMUD and the City of Roseville, prepared an SEIS and EIR, in compliance with NEPA, the Council on Environmental Quality regulations for implementing NEPA (40 Code of Federal Regulations [CFR] parts 1500–1508), California Environmental Quality Act (CEQA) (Cal. Pub. Res. Code §§ 21000, *et seq.*), and California CEQA Guidelines (Cal. Code Reg. Tit. 14 §§ 15000, *et seq.*).

**Project**

The Project consists of (1) constructing a new, double-circuit, 230 kV transmission line between O'Banion Substation and the area just south of Elverta Substation and (2) reconstructing the existing, double-circuit, 230 kV/115 kV transmission line between Elverta Substation and Natomas Substation into a double-circuit 230 kV transmission line.

**Alternatives**

Western analyzed seven action alternatives and the No Action alternative in the SEIS and EIR. Western proposes to build the Project following three route segments. Segments 1 and 3 are common to each action alternative. Segment 1 consists of constructing a new transmission line from O'Banion Substation to an area near Cross Canal in a new right-of-way (ROW). Segment 3 consists of rebuilding the existing SMUD double-circuit, 115/230 kV Elverta-North City and Elverta-Natomas transmission lines within a ROW between Elverta and Natomas substations.

Segment 2 connects Segments 1 and 3. Seven routes were identified for Segment 2. Each of the 2A segments (i.e., segments 2A1, 2A2, 2A3, 2A4, and 2A5) include an option to be located along either the west or east side of Highway 99. The Segment 2 routes differentiate the seven action alternatives (Alternatives A1, A2, A3, A4, A5, B, and C) as described below:

*Alternative A1* is composed of Segments 1, 2A1, and 3. It would involve construction of a new, double-circuit, 230 kV transmission line approximately 33.6 to 33.8 miles long (depending on whether it is located on the east or west side of Highway 99) and rebuilding approximately 4.8 miles of existing Elverta-North City and Elverta-Natomas transmission lines.

*Alternative A2* is composed of Segments 1, 2A2, and 3. It would involve construction of a new, double-circuit, 230 kV transmission line approximately 33.5 to 33.7 miles long (depending on whether it is located on the east or west side of Highway 99) and rebuilding approximately 4.8 miles of existing Elverta-North City and Elverta-Natomas transmission lines.

*Alternative A3* is composed of Segments 1, 2A3, and 3. It would involve construction of a new, double-circuit, 230 kV transmission line approximately 33.8 to 34.0 miles long (depending on whether it is located on the east or west side of Highway 99) and rebuilding approximately 4.8 miles of existing Elverta-North City and Elverta-Natomas transmission lines.

*Alternative A4* is composed of Segments 1, 2A4, and 3. It would involve construction of a new, double-circuit, 230 kV transmission line approximately 35.2 to 35.4 miles long (depending on whether it is located on the east or west side of Highway 99) and rebuilding approximately 4.8 miles of existing Elverta-North City and Elverta-Natomas transmission lines.

*Alternative A5* is composed of Segments 1, 2A5, and 3. It would involve construction of a new, double-circuit, 230 kV transmission line approximately 33.7 to 33.9 miles long (depending on whether it is located on the east or west side of Highway 99) and rebuilding approximately 4.8 miles of existing Elverta-North City and Elverta-Natomas transmission lines.

*Alternative B* is composed of Segments 1, 2B, and 3. It would involve construction of a new, double-circuit, 230 kV transmission line approximately 31.3 miles long and rebuilding approximately 4.8 miles of existing Elverta-North City and Elverta-Natomas transmission lines.

*Alternative C* is composed of Segments 1, 2C1, 2C2, and 3. It would involve construction of a new, double-circuit, 230 kV transmission line approximately 37.6 miles long and rebuilding approximately 4.8 miles of existing Elverta-North City and Elverta-Natomas transmission lines. This alternative would abandon 8.6 miles of existing Cottonwood-Roseville transmission line.

*The No Action Alternative* would include operation and maintenance of the existing transmission lines. Western would not build any of the new transmission line segments presented in the SEIS and EIR. Implementing this alternative would preclude most short-term environmental impacts associated with construction activities. This alternative would not meet the Project's purpose and need. The No Action Alternative would not alleviate the greater Sacramento area power system voltage stability, reliability, and security problems. While Western and interconnected transmission system owners, Load Serving Entities, and area utilities would continue to take appropriate measures to manage power system reliability, they may be unable to meet system reliability standards and contractual obligations under the No Action Alternative.

Western has proactively developed Environmental Protection Measures (EPMs) to protect sensitive resources in the field. These EPMs would be implemented as part of the Project.

*Preferred Alternatives*

Determining the preferred alternatives requires that Western balance many factors with the Project's purpose and need. Western identified the No Action Alternative as the Environmentally Preferred Alternative because it would have no additional impacts to environmental resources. However, the No Action Alternative would not meet the Project's purpose and need. Therefore, Western selected Alternative B as the Environmentally Preferred Action Alternative. With the implementation of the EPMs, Alternative B would not result in a significant adverse environmental effect on any resource and would be the shortest route, requiring the least amount of disturbance for the transmission line and access roads. In comparison to the other action alternatives, Alternative B would have greater effects on wetlands, including vernal pools and existing residences; however, these impacts could be minimized through proper design. Also, Alternative B would generally have less impact on other resources, including air quality, giant garter snake habitat, existing and planned habitat conservation plan areas, prime and unique farmland, and planned transportation projects.

Western considered its determination of the Environmentally Preferred Action

Alternative, consistency with the Project's purpose and need, and economic and engineering factors to select Alterative B as the overall Preferred Alternative. Alternative B is partially within an established north-south transmission line corridor and in or immediately adjacent to an abandoned railroad ROW. It is the shortest of the action alternatives, which would result in preferable economics and less-than-significant environmental impacts.

**Public Involvement**

Notices of availability of the draft SEIS and EIR were published in several local newspapers and the **Federal Register**. Agencies, Tribes, property owners within 500 feet of the Project ROW, and those expressing interest were notified by direct mailings. Two public forums were held during the public comment period: one on August 7, 2007, in Roseville, California, and one on August 8, 2007, in Sacramento, California. Western received oral comments from ten people and written comments from two people at the public forums. Additionally, Western received written comments from about 40 commenters via mail, e-mail, and facsimile. The public comment period closed on August 27, 2007. Along with findings in the draft SEIS and EIR, Western used public and agency comments to guide its selection of the Preferred and Environmentally Preferred Alternatives. Western responded to public comments and made minor modifications, addenda, and corrections in its final SEIS and EIR. Notices of availability of the final SEIS and EIR were published in several local newspapers and the **Federal Register**. Upon identifying that it had overlooked some comment letters, Western evaluated the missed comments but made no significant corrections or changes to the Final SEIS and EIR. Western responded to the additional comments and included them in the Final SEIS and EIR, which was reissued. Notices of availability of the Final SEIS and EIR were re-issued by direct mail and republished in the local newspapers and the **Federal Register**.

**Environmental Impacts**

The SEIS and EIR provides a detailed impact analysis of the 17 resource areas analyzed. For cultural resources, electric and magnetic fields, environmental justice, floodplains, geology, health and safety, noise, paleontological resources, socioeconomics, soils, and water resources impacts would not appreciably differ among action alternatives. With the implementation of the EPMs, none of the alternatives would result in significant direct, indirect, or cumulative impacts for any of these resource areas. The remaining resource areas are discussed below.

With regard to air quality, the area is in non-attainment for ozone, nitrogen oxides, volatile organic compounds, reactive organic gases, and particulate matter less than 10 micrometers in diameter. Differences among alternatives would be small and contributions of the above-mentioned pollutants would be in direct correlation to the length of each alternative and time needed to complete construction. Because Alternative C involves the most distance and time for construction, it would have the most impact on air resources. Alternative B would have the least impact on air resources because it involves the least distance and time for construction. Impacts from the Project would be short-term, occurring only during construction. All recommended mitigation measures from applicable air districts would be applied to the Project. Therefore, no significant direct, indirect, or cumulative effects would result from any of the alternatives.

The differences in impacts to biological and wetland resources among action alternatives would be small and vary by species and habitat. In particular, the alternatives would affect varying amounts of rice fields (habitat for the giant garter snake), wetlands, including vernal pools and existing or proposed conservation areas. The A alternatives would have the greatest impact on rice fields and would pass through and/or adjacent to the Natomas Basin Conservancy, an area managed under the Natomas Basin Habitat Conservation Plan. Alternative B would have the least impact on rice fields and habitat conservation plan areas. Conversely, Alternative B would have the greatest impact on wetlands and the A alternatives would have the least impact on wetlands. In addition to EPMs already developed, Western would incorporate mitigation measures identified during consultation with appropriate agencies. Therefore, no significant direct, indirect, or cumulative effects would result from any of the alternatives.

The differences in impacts to land uses among action alternatives would be small and vary by use. In particular, the action alternatives demonstrate comparative differences for existing residences, prime and unique farmland, and planned development. Segment 2B of Alternative B would be constructed near 16 existing residences located adjacent to the Project alignment. The A alternatives have the greatest impacts on prime and unique farmland. Alternative C would cross or be located adjacent to the greatest number of planned developments in the area. While these impacts exist among alternatives, none would result in significant direct, indirect, or cumulative effects for any alternative.

The main difference in traffic and transportation impacts among alternatives is that, for the A alternatives west of Highway 99, the Project would have to cross Highway 99 three times compared with one time for all other action alternatives. These impacts would be limited to the construction period. No significant direct, indirect, or cumulative effects would result from any of the alternatives.

The effects on visual resources from the Project are similar for all action alternatives. The City of Roseville, however, has a specific, approved visual policy with which Alternative C would conflict. Therefore, Alternative C would result in a significant indirect and cumulative impact. No other alternatives would result in significant direct, indirect, or cumulative effects.

**Agency Consultations**

Western will complete consultations and obtain applicable permits and approvals as appropriate, prior to construction. Western is currently developing a Programmatic Agreement to satisfy requirements under the National Historic Preservation Act. Western will consult with the U.S. Fish and Wildlife Service to comply with the Endangered Species Act 16 (U.S.C. § 1536.). Western will obtain permits from the U.S. Army Corps of Engineers (USACE) in compliance with Rivers and Harbors Act Section 10 and Clean Water Act Section 404 (33 U.S.C. 1344.). Western will obtain a water quality certification from the Regional Water Quality Control Board in compliance with the Clean Water Act Section 401 (33 U.S.C. 1341.).

**Mitigation**

Western developed 104 EPMs to reduce environmental consequences associated with construction and operation activities. Western determined environmental consequences in the SEIS and EIR, based on the assumption that all EPMs would be fully implemented. These EPMs ensure that Western will avoid or minimize environmental harm from building the Project. During ongoing consultations and coordination with agencies and prior to construction, additional mitigation measures may be developed. Western will incorporate

these measures, as appropriate, to further avoid and mitigate impacts. Western will include these additional measures in a Mitigation Action Plan (MAP). Western will develop a MAP in accordance with 10 CFR 1021.331 that addresses mitigation commitments. It will explain how the mitigation will be planned and implemented. The MAP will be available upon request. With implementation of the EPMs and MAP, Western will adopt all practical means to avoid or minimize environmental harm for the Project.

### Floodplain and Wetland Statement of Findings

In accordance with 10 CFR 1022, Western considered the potential impacts of the Project on floodplains and wetlands. The Project and surrounding area are dominated by 100- and 500-year floodplain zones and a network of flood control levees and canals. A map of Project and floodplain zone information is available in the Draft SEIS and EIR on page 4–46. There is no practical means of avoiding floodplains. Because of the nature of transmission line construction and its relative small amount of disturbance and implementation of the EPMs, such as erosion control, surface restoration, the Project would not substantially alter the normal drainage patterns or affect runoff rates. Western would maximize use of existing roads. Structures located in the floodplains, would not contribute to the impedance of flood flows.

Western evaluated alternatives for the Project and found there was no practical means of avoiding wetlands entirely. Western estimates that approximately 2.4 acres of wetlands would be permanently affected by the construction of the Project Preferred Alternative (Alternative B). Western will design the Project to avoid wetlands where possible.

Western will coordinate with agencies to ensure compliance with all applicable floodplain and wetland requirements. Western will mitigate the project for wetlands as deemed appropriate by the USACE.

### Decision

Western's decision is to build the Preferred Alternative (Alternative B), as described above and in the SEIS and EIR. This decision is based on the information contained in the ''Sacramento Area Voltage Support Project Supplemental Environmental Impact Statement and Environmental Impact Report (DOE/EIS–0323S1)''; (Draft SEIS and EIR issued July 2007 and Final reissued March 2008). This ROD has been prepared in accordance with Council on Environmental Quality regulations for implementing NEPA (40 CFR Parts 1500–1508) and DOE Procedures for Implementing NEPA (10 CFR Part 1021). Full implementation of this decision is contingent upon the implementation of the EPMs for the Preferred Alternative and Project obtaining all applicable permits and approvals.

Dated: April 29, 2008.

**Timothy J. Meeks,**

*Administrator.*

[FR Doc. E8–9956 Filed 5–5–08; 8:45 am]

BILLING CODE 6450–01–P

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## ENVIRONMENTAL PROTECTION AGENCY

**[EPA–HQ–OAR–2008–0317; FRL–8563–3]**

## Agency Information Collection Activities; Proposed Collection; Comment Request; Rule To Reduce Interstate Transport of Fine Particulate Matter and Ozone (Clean Air Interstate Rule)—Final Rule; EPA ICR No. 2152.03, OMB Control No. 2060–0570.

**AGENCY:** Environmental Protection Agency.

**ACTION:** Notice.

**SUMMARY:** In compliance with the Paperwork Reduction Act (PRA) (44 U.S.C. 3501 *et seq.*), this document announces that EPA is planning to submit a request to renew an existing approved Information Collection Request (ICR) to the Office of Management and Budget (OMB). This ICR is scheduled to expire on September 30, 2008. Before submitting the ICR to OMB for review and approval, EPA is soliciting comments on specific aspects of the proposed information collection as described below.

**DATES:** Comments must be submitted on or before July 7, 2008.

**ADDRESSES:** Submit your comments, identified by Docket ID No. EPA–HQ–OAR–2006–0947.

- *http://www.regulations.gov:* Follow the on-line instructions for submitting comments.
- *E-mail: a-and-r-Docket@epa.gov.*
- *Fax:* (202) 566–9744.
- *Mail:* Air Docket, Environmental Protection Agency, Mailcode: 2822T, 1200 Pennsylvania Ave., NW., Washington, DC 20460.
- *Hand Delivery:* Docket Center, (EPA/DC), EPA West, Room 3334, 1301 Constitution Ave., NW., Washington, DC 20460. Such deliveries are only accepted during the Docket's normal hours of operation, and special arrangements should be made for deliveries of boxed information.

*Instructions:* Direct your comments to Docket ID No. EPA–HQ–OAR–2006–0947. EPA's policy is that all comments received will be included in the public docket without change and may be made available online at *http://www.regulations.gov,* including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected through *http://www.regulations.gov* or e-mail. The *http://www.regulations.gov* Web site is an ''anonymous access'' system, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an e-mail comment directly to EPA without going through *http://www.regulations.gov* your e-mail address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD–ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses. For additional information about EPA's public docket visit the EPA Docket Center homepage at *http://www.epa.gov/epahome/dockets.htm.*

**FOR FURTHER INFORMATION CONTACT:** Ruben D. Deza, Clean Air Markets Division, (6204J), Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460; telephone number: 202–343–9364; fax number: 202–343–2359; e-mail address: *deza.ruben@epa.gov.*

**SUPPLEMENTARY INFORMATION:**

### How Can I Access the Docket and/or Submit Comments?

EPA has established a public docket for this ICR under Docket ID No. EPA–HQ–OAR–2006–0947, which is available for online viewing at *http://www.regulations.gov,* or in person viewing at the Air and Radiation Docket in the EPA Docket Center (EPA/DC), EPA West, Room 3334, 1301 Constitution Ave., NW., Washington, DC. The EPA/DC Public Reading Room

is open from 8 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Reading Room is 202–566–1744, and the telephone number for the Air and Radiation Docket is (202) 566–9744.

Use *http://www.regulations.gov* to obtain a copy of the draft collection of information, submit or view public comments, access the index listing of the contents of the docket, and to access those documents in the public docket that are available electronically. Once in the system, select ''search,'' then key in the docket ID number identified in this document.

**What Information Is EPA Particularly Interested In?**

Pursuant to section 3506(c)(2)(A) of the PRA, EPA specifically solicits comments and information to enable it to:

(i) 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;

(ii) 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;

(iii) enhance the quality, utility, and clarity of the information to be collected; and

(iv) 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. In particular, EPA is requesting comments from very small businesses (those that employ less than 25) on examples of specific additional efforts that EPA could make to reduce the paperwork burden for very small businesses affected by this collection.

**What Should I Consider When I Prepare My Comments for EPA?**

You may find the following suggestions helpful for preparing your comments:

1. Explain your views as clearly as possible and provide specific examples.
2. Describe any assumptions that you used.
3. Provide copies of any technical information and/or data you used that support your views.
4. If you estimate potential burden or costs, explain how you arrived at the estimate that you provide.
5. Offer alternative ways to improve the collection activity.
6. Make sure to submit your comments by the deadline identified under **DATES**.
7. To ensure proper receipt by EPA, be sure to identify the docket ID number assigned to this action in the subject line on the first page of your response. You may also provide the name, date, and **Federal Register** citation.

**What Information Collection Activity or ICR Does This Apply to?**

*Docket ID No. EPA–HQ–OAR–2006–0947*

*Affected entities:* Entities potentially affected by this action are units producing electric power which are affected by the Clean Air Interstate Rule (CAIR).

*Title:* Rule to Reduce Interstate Transport of Fine Particulate Matter and Ozone (Clean Air Interstate Rule)—Final Rule.

*ICR number:* EPA ICR No. 2152.03, OMB Control No. 2060–0570.

*ICR status:* This ICR is currently scheduled to expire on September 30, 2008. 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 OMB control numbers for EPA's regulations in title 40 of the CFR, after appearing in the **Federal Register** when approved, are listed in 40 CFR part 9, are displayed either by publication in the **Federal Register** or by other appropriate means, such as on the related collection instrument or form, if applicable. The display of OMB control numbers in certain EPA regulations is consolidated in 40 CFR part 9.

*Abstract:* The United States (U.S.) Environmental Protection Agency (EPA) has promulgated a Rule to Reduce Interstate Transport of Fine Particulate Matter and Ozone (Clean Air Interstate Rule) (CAIR) that includes new reporting requirements and combines these new requirements with existing requirements from the Consolidated Emissions Reporting Rule (CERR), the Emission Reporting Requirements for Ozone State Implementation Plan (SIP) Revisions Relating to Statewide Budgets for $NO_X$ Emissions to Reduce Regional Transport of Ozone ($NO_X$ SIP Call) and the Acid Rain Program under Title IV of the CAA Amendments of 1990. Each of these three existing requirements has an approved ICR in place. The current ICRs are: for the CERR, ICR # 0916.10, for the $NO_X$ SIP Call, ICR # 1857.03 and for the Acid Rain Program, ICR # 1633.13. This ICR renewal accounts for the incremental burden associated with the CAIR. As such, this supporting statement references the burden analysis included in ICR #s 0916.10, 1857.03, and 1633.13 and estimates the change in burden resulting from the CAIR beyond the scope of these ICRs. This ICR renewal is open for public review and comment.

*Burden Statement:* The annual public reporting and recordkeeping burden for this collection of information is estimated to average 500 hours per year for industry, and a reduction of 6 hours per year for State, Territorial and local air pollution control agencies. Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements which have subsequently changed; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

The ICR provides a detailed explanation of the Agency's estimate, which is only briefly summarized here:

*Estimated total number of potential respondents:* 1,750.

*Frequency of response:* Quarterly.

*Estimated total average number of responses for each respondent:*

*Estimated total annual burden hours:* 607,216 hours.

*Estimated total annual costs:* $42,017,534.34.

**Are There Changes in the Estimates From the Last Approval?**

To date, there are no changes in the number of hours in the total estimated respondent burden compared with that identified in the ICR currently approved by OMB. However, EPA is still evaluating information that may lead to a change in the estimates.

**What Is the Next Step in the Process for This ICR?**

EPA will consider the comments received and amend the ICR as appropriate. The final ICR package will then be submitted to OMB for review and approval pursuant to 5 CFR 1320.12. At that time, EPA will issue another **Federal Register** notice

pursuant to 5 CFR 1320.5(a)(1)(iv) to announce the submission of the ICR to OMB and the opportunity to submit additional comments to OMB. If you have any questions about this ICR or the approval process, please contact the technical person listed under **FOR FURTHER INFORMATION CONTACT**.

Dated: April 22, 2008.

**Reynaldo Forte,**

*Acting Director, Clean Air Markets Division.*

[FR Doc. E8–9948 Filed 5–5–08; 8:45 am]

**BILLING CODE 6560–50–P**

## ENVIRONMENTAL PROTECTION AGENCY

**[EPA–HQ–OPPT–2007–0670; FRL–8562–3]**

## Agency Information Collection Activities; Submission to OMB for Review and Approval; Comment Request; TSCA Section 8(a) Preliminary Assessment Information Rule (PAIR); EPA ICR No. 0586.11, OMB No. 2070–0054

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Notice.

**SUMMARY:** In compliance with the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*), this document announces that an Information Collection Request (ICR) has been forwarded to the Office of Management and Budget (OMB) for review and approval. This is a request to renew an existing approved collection. The ICR, which is abstracted below, describes the nature of the information collection activity and its expected burden and costs.

**DATES:** Additional comments may be submitted on or before June 5, 2008.

**ADDRESSES:** Submit your comments, referencing docket ID Number EPA–HQ–OPPT–2007–0670 to (1) EPA online using *www.regulations.gov* (our preferred method), by e-mail to *oppt.ncic@epa.gov* or by mail to: Document Control Office (DCO), Office of Pollution Prevention and Toxics (OPPT), Environmental Protection Agency, Mail Code: 7407T, 1200 Pennsylvania Ave., NW., Washington, DC 20460, and (2) OMB at: Office of Information and Regulatory Affairs, Office of Management and Budget (OMB), Attention: Desk Officer for EPA, 725 17th Street, NW., Washington, DC 20503.

**FOR FURTHER INFORMATION CONTACT:** Barbara Cunningham, Director, Environmental Assistance Division, Office of Pollution Prevention and Toxics, Environmental Protection Agency, Mailcode: 7408–M, 1200 Pennsylvania Ave., NW., Washington, DC 20460; telephone number: 202–554–1404; e-mail address: *TSCA-Hotline@epa.gov.*

**SUPPLEMENTARY INFORMATION:** EPA has submitted the following ICR to OMB for review and approval according to the procedures prescribed in 5 CFR 1320.12. On December 21, 2007 (72 FR 72704), EPA sought comments on this ICR pursuant to 5 CFR 1320.8(d). EPA received no comments during the comment period. Any comments related to this ICR should be submitted to EPA and OMB within 30 days of this notice.

EPA has established a public docket for this ICR under Docket ID No. EPA–HQ–OPPT–2007–0670, which is available for online viewing at *http://www.regulations.gov,* or in person inspection at the OPPT Docket in the EPA Docket Center (EPA/DC), EPA West, Room 3334, 1301 Constitution Ave., NW., Washington, DC. The EPA Docket Center Public Reading Room is open from 8 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Reading Room is 202–566–1744, and the telephone number for the Pollution Prevention and Toxics Docket is 202–566–0280.

Use EPA's electronic docket and comment system at *http://www.regulations.gov* to submit or view public comments, access the index listing of the contents of the public docket, and to access those documents in the docket that are available electronically. Once in the system, select ''docket search,'' then key in the docket ID number identified above. Please note that EPA's policy is that public comments, whether submitted electronically or in paper, will be made available for public viewing in *http://www.regulations.gov* as EPA receives them and without change, unless the comment contains copyrighted material, Confidential Business Information (CBI), or other information whose public disclosure is restricted by statute. For further information about the electronic docket, go to *http://www.regulations.gov.*

*Title:* TSCA Section 8(a) Preliminary Assessment Information Rule (PAIR).

*ICR Numbers:* EPA ICR No. 0586.11, OMB Control No. 2070–0054.

*ICR Status:* This ICR is currently scheduled to expire on May 31, 2008. Under OMB regulations, the Agency may continue to conduct or sponsor the collection of information while this submission is pending at OMB. 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 OMB control numbers for EPA's regulations in title 40 of the CFR, after appearing in the **Federal Register** when approved, are listed in 40 CFR part 9, are displayed either by publication in the **Federal Register** or by other appropriate means, such as on the related collection instrument or form, if applicable. The display of OMB control numbers in certain EPA regulations is consolidated in 40 CFR part 9.

*Abstract:* Section 8(a) of the Toxic Substances Control Act (TSCA) authorizes EPA to promulgate rules under which manufacturers, importers and processors of chemical substances and mixtures must maintain records and submit reports to EPA. EPA has promulgated the Preliminary Assessment Information Rule (PAIR) under TSCA section 8(a). EPA uses PAIR to collect information to identify, assess and manage human health and environmental risks from chemical substances, mixtures and categories. PAIR requires chemical manufacturers and importers to complete a standardized reporting form to help evaluate the potential for adverse human health and environmental effects caused by the manufacture or importation of identified chemical substances, mixtures or categories. Chemicals identified by EPA or any other federal agency, for which a justifiable information need for production, use or exposure-related data can be satisfied by the use of the PAIR are proper subjects for TSCA section 8(a) PAIR rulemaking. In most instances the information that EPA receives from a PAIR report is sufficient to satisfy the information need in question. This information collection addresses the reporting and recordkeeping requirements associated with TSCA section 8(a).

Responses to the collection of information are mandatory (see 40 CFR parts 712, 766 and 792). Respondents may claim all or part of a notice as CBI. EPA will disclose information that is covered by a CBI claim only to the extent permitted by, and in accordance with, the procedures in 40 CFR part 2.

*Burden Statement:* The annual public reporting and recordkeeping burden for this collection of information is estimated to average 29.0 hours per response. Burden means the total time, effort or financial resources expended by persons to generate, maintain, retain or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install and utilize

technology and systems for the purposes of collecting, validating and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

*Respondents/Affected Entities:* Entities potentially affected by this action are companies that manufacture or import chemical substances, mixtures or categories.

*Estimated No. of Respondents:* 26.

*Frequency of Collection:* On occasion.

*Estimated Total Annual Burden on Respondents:* 1,568 hours.

*Estimated Total Annual Costs:* $89,593 that includes $2,746 in Operations and Maintenance costs.

*Changes in Burden Estimates:* There is a net increase of 988 hours (from 580 hours to 1,568 hours) in the total estimated respondent burden compared with that currently in the OMB inventory. This increase reflects EPA's revised estimates of the number of PAIR reports filed annually. There is also a corresponding $1,746 increase in associated non-labor costs (e.g., photocopying and mailing costs). The Supporting Statement includes detailed analyses of these revised estimates. These changes are adjustments.

Dated: April 28, 2008.

**Sara Hisel-McCoy,**

*Director, Collection Strategies Division.*

[FR Doc. E8–9949 Filed 5–5–08; 8:45 am]

**BILLING CODE 6560–50–P**

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## ENVIRONMENTAL PROTECTION AGENCY

**[EPA–HQ–RCRA–2008–0244, FRL–8562–8]**

## Agency Information Collection Activities; Proposed Collection; Comment Request; Final Authorization for Hazardous Waste Management Programs; EPA ICR No. 0969.08, OMB Control No. 2050–0041

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Notice.

**SUMMARY:** In compliance with the Paperwork Reduction Act (PRA) (44 U.S.C. 3501 *et seq.*), this document announces that EPA is planning to submit a request to renew an existing approved Information Collection Request (ICR) to the Office of Management and Budget (OMB). This ICR is scheduled to expire on September 30, 2008. Before submitting the ICR to OMB for review and approval, EPA is soliciting comments on specific aspects of the proposed information collection as described below.

**DATES:** Comments must be submitted on or before July 7, 2008.

**ADDRESSES:** Submit your comments, identified by Docket ID No. EPA–HQ–RCRA–2008–0244, by one of the following methods:

- *http://www.regulations.gov:* Follow the on-line instructions for submitting comments.
- *E-mail: rcra-docket@epa.gov.*
- *Fax:* 202–566–9744.
- *Mail:* RCRA Docket (2822T), U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, NW., Washington, DC 20460.
- *Hand Delivery:* 1301 Constitution Ave., NW., Room 3334, Washington, DC 20460. Such deliveries are only accepted during the Docket's normal hours of operation, and special arrangements should be made for deliveries of boxed information.

*Instructions:* Direct your comments to Docket ID No. EPA–HQ–RCRA–2008–0244. EPA's policy is that all comments received will be included in the public docket without change and may be made available online at *http://www.regulations.gov*, including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected through *http://www.regulations.gov* or e-mail. The *http://www.regulations.gov* Web site is an ''anonymous access'' system, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an e-mail comment directly to EPA without going through *http://www.regulations.gov* your e-mail address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD–ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses. For additional information about EPA's public docket visit the EPA Docket Center homepage at *http://www.epa.gov/epahome/dockets.htm.*

**FOR FURTHER INFORMATION CONTACT:** Kathy Rafferty, Office of Solid Waste (mail code 5303P), Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460; telephone number: 703–308–0589; fax number: 703–308–8617; e-mail address: *rafferty.kathy@epa.gov.*

**SUPPLEMENTARY INFORMATION:**

### How Can I Access the Docket and/or Submit Comments?

EPA has established a public docket for this ICR under Docket ID No. EPA–HQ–RCRA–2008–0244, which is available for online viewing at *http://www.regulations.gov*, or in person viewing at the RCRA Docket in the EPA Docket Center (EPA/DC), EPA West, Room 3334, 1301 Constitution Ave., NW., Washington, DC. The EPA/DC Public Reading Room is open from 8 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Reading Room is 202–566–1744, and the telephone number for RCRA Docket is (202) 566–0270.

Use *http://www.regulations.gov* to obtain a copy of the draft collection of information, submit or view public comments, access the index listing of the contents of the docket, and to access those documents in the public docket that are available electronically. Once in the system, select ''search,'' then key in the docket ID number identified in this document.

### What Information Is EPA Particularly Interested In?

Pursuant to section 3506(c)(2)(A) of the PRA, EPA specifically solicits comments and information to enable it to:

(i) 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;

(ii) 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;

(iii) enhance the quality, utility, and clarity of the information to be collected; and

(iv) 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. In particular, EPA is requesting comments from very small businesses (those that employ less than 25) on examples of specific additional efforts that EPA could make to reduce the paperwork burden for very small businesses affected by this collection.

**What Should I Consider When I Prepare My Comments for EPA?**

You may find the following suggestions helpful for preparing your comments:

1. Explain your views as clearly as possible and provide specific examples.
2. Describe any assumptions that you used.
3. Provide copies of any technical information and/or data you used that support your views.
4. If you estimate potential burden or costs, explain how you arrived at the estimate that you provide.
5. Offer alternative ways to improve the collection activity.
6. Make sure to submit your comments by the deadline identified under **DATES**.
7. To ensure proper receipt by EPA, be sure to identify the docket ID number assigned to this action in the subject line on the first page of your response. You may also provide the name, date, and **Federal Register** citation.

**What Information Collection Activity or ICR Does This Apply to?**

*Affected entities:* Entities potentially affected by this action are the Federal Government, and State, Local, or Tribal Governments.

*Title:* Final Authorization for Hazardous Waste Management Programs.

*ICR numbers:* EPA ICR No. 0969.08, OMB Control No. 2050–0041.

*ICR status:* This ICR is currently scheduled to expire on September 30, 2008. 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 OMB control numbers for EPA's regulations in title 40 of the CFR, after appearing in the **Federal Register** when approved, are listed in 40 CFR part 9, are displayed either by publication in the **Federal Register** or by other appropriate means, such as on the related collection instrument or form, if applicable. The display of OMB control numbers in certain EPA regulations is consolidated in 40 CFR part 9.

*Abstract:* In order for a State to obtain final authorization for a State hazardous waste program or to revise its previously authorized program, it must submit an official application to the EPA Regional office for approval. The purpose of the application is to enable EPA to properly determine whether the State's program meets the requirements of section 3006 of RCRA.

A State with an approved program may voluntarily transfer program responsibilities to EPA by notifying EPA of the proposed transfer, as required by § 271.23. Further, EPA may withdraw a State's authorized program under § 271.23.

State program revision may be necessary when the controlling Federal or State statutory or regulatory authority is modified or supplemented. In the event that the State is revising its program by adopting new Federal requirements, the State shall prepare and submit modified revisions of the program description, Attorney General's statement, Memorandum of Agreement, or such other documents as EPA determines to be necessary. The State shall inform EPA of any proposed modifications to its basic statutory or regulatory authority in accordance with § 271.21. If a State is proposing to transfer all or any part of any program from the approved State agency to any other agency, it must notify EPA in accordance with § 271.21 and submit revised organizational charts as required under § 271.6, in accordance with § 271.21. These paperwork requirements are mandatory under section 3006(a). EPA will use the information submitted by the State in order to determine whether the State's program meets the statutory and regulatory requirements for authorization.

*Burden Statement:* The annual public reporting and recordkeeping burden for this collection of information is estimated to average 399 hours per response. Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements which have subsequently changed; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

The ICR provides a detailed explanation of the Agency's estimate, which is only briefly summarized here:

*Estimated total number of potential respondents:* 50.

*Frequency of response:* 1.

*Estimated total average number of responses for each respondent:* 1.

*Estimated total annual burden hours:* 19,968.

*Estimated total annual costs:* $901,807. This includes an estimated labor burden cost of $901,807 and an estimated cost of $0 for capital investment or maintenance and operational costs.

**What Is the Next Step in the Process for This ICR?**

EPA will consider the comments received and amend the ICR as appropriate. The final ICR package will then be submitted to OMB for review and approval pursuant to 5 CFR 1320.12. At that time, EPA will issue another **Federal Register** notice pursuant to 5 CFR 1320.5(a)(1)(iv) to announce the submission of the ICR to OMB and the opportunity to submit additional comments to OMB. If you have any questions about this ICR or the approval process, please contact the technical person listed under **FOR FURTHER INFORMATION CONTACT**.

Dated: April 28, 2008.

**Matthew Hale,**

*Director, Office of Solid Waste.*

[FR Doc. E8–9951 Filed 5–5–08; 8:45 am]

BILLING CODE 6560–50–P

## ENVIRONMENTAL PROTECTION AGENCY

**[EPA–HQ–OAR–2008–0246, FRL–8562–7]**

## Agency Information Collection Activities; Proposed Collection; Comment Request; NESHAP for Hazardous Waste Combustors (40 CFR Part 63, Subpart EEE), EPA ICR Number 1773.09, OMB Control Number 2050–0171

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Notice.

**SUMMARY:** In compliance with the Paperwork Reduction Act (PRA) (44 U.S.C. 3501 *et seq.*), this document announces that EPA is planning to submit a request to renew an existing approved Information Collection Request (ICR) to the Office of Management and Budget (OMB). This ICR is scheduled to expire on September 30, 2008. Before submitting the ICR to OMB for review and approval, EPA is

soliciting comments on specific aspects of the proposed information collection as described below.

**DATES:** Comments must be submitted on or before July 7, 2008.

**ADDRESSES:** Submit your comments, identified by Docket ID No. EPA–HQ–OAR–2008–0246, by one of the following methods:

- *http://www.regulations.gov:* Follow the on-line instructions for submitting comments.
- *Email: a-and-r-docket@epa.gov.*
- *Fax:* 202–566–9744.
- *Mail:* Air and Radiation Docket (2822T), U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, NW., Washington, DC 20460.
- *Hand Delivery:* 1301 Constitution Ave., NW., Room 3334, Washington, DC 20460. Such deliveries are only accepted during the Docket's normal hours of operation, and special arrangements should be made for deliveries of boxed information.

*Instructions:* Direct your comments to Docket ID No. EPA–HQ–OAR–2008–0246. EPA's policy is that all comments received will be included in the public docket without change and may be made available online at *http://www.regulations.gov*, including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected through *http://www.regulations.gov* or e-mail. The *http://www.regulations.gov* Web site is an ''anonymous access'' system, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an e-mail comment directly to EPA without going through *http://www.regulations.gov*, your e-mail address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD–ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses. For additional information about EPA's public docket visit the EPA Docket Center homepage at *http://www.epa.gov/epahome/dockets.htm.*

**FOR FURTHER INFORMATION CONTACT:** Shiva Garg, Office of Solid Waste (mail code 5302P), Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460; telephone number: 703–308–8459; fax number: 703–308–8433; email address: *garg.shiva@epa.gov.*

**SUPPLEMENTARY INFORMATION:**

## How Can I Access the Docket and/or Submit Comments?

EPA has established a public docket for this ICR under Docket ID No. EPA–HQ–OAR–2008–0246, which is available for online viewing at *http://www.regulations.gov*, or in person viewing at the RCRA Docket in the EPA Docket Center (EPA/DC), EPA West, Room 3334, 1301 Constitution Ave., NW., Washington, DC. The EPA/DC Public Reading Room is open from 8 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Reading Room is 202–566–1744, and the telephone number for RCRA Docket is (202) 566–0270.

Use *http://www.regulations.gov* to obtain a copy of the draft collection of information, submit or view public comments, access the index listing of the contents of the docket, and to access those documents in the public docket that are available electronically. Once in the system, select ''search,'' then key in the docket ID number identified in this document.

## What Information Is EPA Particularly Interested in?

Pursuant to section 3506(c)(2)(A) of the PRA, EPA specifically solicits comments and information to enable it to:

(i) 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;

(ii) 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;

(iii) enhance the quality, utility, and clarity of the information to be collected; and

(iv) 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. In particular, EPA is requesting comments from very small businesses (those that employ less than 25) on examples of specific additional efforts that EPA could make to reduce the paperwork burden for very small businesses affected by this collection.

## What Should I Consider When I Prepare My Comments for EPA?

You may find the following suggestions helpful for preparing your comments:

1. Explain your views as clearly as possible and provide specific examples.
2. Describe any assumptions that you used.
3. Provide copies of any technical information and/or data you used that support your views.
4. If you estimate potential burden or costs, explain how you arrived at the estimate that you provide.
5. Offer alternative ways to improve the collection activity.
6. Make sure to submit your comments by the deadline identified under **DATES**.
7. To ensure proper receipt by EPA, be sure to identify the docket ID number assigned to this action in the subject line on the first page of your response. You may also provide the name, date, and **Federal Register** citation.

## What Information Collection Activity or ICR Does This Apply to?

*Affected entities:* Entities affected by this action are businesses and the Federal Government.

*Title:* Information Collection Request (ICR) for NESHAP for Hazardous Waste Combustors (40 CFR part 63, subpart EEE)

*ICR numbers:* EPA ICR No. 1773.09, OMB Control No. 2050–0171.

*ICR status:* This ICR is currently scheduled to expire on September 30, 2008. 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 OMB control numbers for EPA's regulations in title 40 of the CFR, after appearing in the **Federal Register** when approved, are listed in 40 CFR part 9, are displayed either by publication in the **Federal Register** or by other appropriate means, such as on the related collection instrument or form, if applicable. The display of OMB control numbers in certain EPA regulations is consolidated in 40 CFR part 9.

*Abstract:* EPA, under authority of section 112d of the Clean Air Act, established National Emission Standards for Hazardous Air Pollutants (NESHAPs) for hazardous waste combustors: hazardous waste burning

incinerators, cement kilns, lightweight aggregate kilns, industrial/commercial/institutional boilers and process heaters, and hydrochloric acid production furnaces. These NESHAPs are found in 40 CFR part 63. Under these standards, hazardous waste combustors are required to meet emission levels that reflect the maximum achievable control technology.

*Burden Statement:* The annual public reporting and recordkeeping burden for this collection of information is estimated to average 51 hours per response. Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements which have subsequently changed; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

The ICR provides a detailed explanation of the Agency's estimate, which is only briefly summarized here:

*Estimated total number of potential respondents:* 238.

*Frequency of response:* on occasion.

*Estimated total average number of responses for each respondent:* 17.

*Estimated total annual burden hours:* 201,527.

*Estimated total annual costs:* $19,838,000. This includes an estimated labor burden cost of $14,571,000 and an estimated cost of $5,267,000 for capital investment or maintenance and operational costs.

**What Is the Next Step in the Process for This ICR?**

EPA will consider the comments received and amend the ICR as appropriate. The final ICR package will then be submitted to OMB for review and approval pursuant to 5 CFR 1320.12. At that time, EPA will issue another **Federal Register** notice pursuant to 5 CFR 1320.5(a)(1)(iv) to announce the submission of the ICR to OMB and the opportunity to submit additional comments to OMB. If you have any questions about this ICR or the approval process, please contact the technical person listed under **FOR FURTHER INFORMATION CONTACT**.

Dated: April 28, 2008.

**Matthew Hale,**

*Director, Office of Solid Waste.*

[FR Doc. E8–9952 Filed 5–5–08; 8:45 am]

**BILLING CODE 6560–50–P**

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## ENVIRONMENTAL PROTECTION AGENCY

**[EPA–HQ–RCRA–2008–0242, FRL–8562–6]**

## Agency Information Collection Activities; Proposed Collection; Comment Request; State Program Adequacy Determination: Municipal Solid Waste Landfills and Non-Municipal, Non-Hazardous Waste Disposal Units That Receive Conditionally Exempt Small Quantity Generator Hazardous Waste, EPA ICR Number 1608.05, OMB Control Number 2050–0152

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Notice.

**SUMMARY:** In compliance with the Paperwork Reduction Act (PRA) (44 U.S.C. 3501 *et seq.*), this document announces that EPA is planning to submit a request to renew an existing approved Information Collection Request (ICR) to the Office of Management and Budget (OMB). This ICR is scheduled to expire on September 30, 2008. Before submitting the ICR to OMB for review and approval, EPA is soliciting comments on specific aspects of the proposed information collection as described below.

**DATES:** Comments must be submitted on or before July 7, 2008.

**ADDRESSES:** Submit your comments, identified by Docket ID No. EPA–HQ–RCRA–2008–0242, by one of the following methods:

- *http://www.regulations.gov:* Follow the on-line instructions for submitting comments.
- *E-mail: rcra-docket@epa.gov.*
- *Fax:* 202–566–9744.
- *Mail:* RCRA Docket (2822T), U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, NW., Washington, DC 20460.
- *Hand Delivery:* 1301 Constitution Ave., NW., Room 3334, Washington, DC 20460. Such deliveries are only accepted during the Docket's normal hours of operation, and special arrangements should be made for deliveries of boxed information.

*Instructions:* Direct your comments to Docket ID No. EPA–HQ–RCRA–2008–0242. EPA's policy is that all comments received will be included in the public docket without change and may be made available online at *http://www.regulations.gov*, including any personal information provided, unless the comment includes information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected through *http://www.regulations.gov* or e-mail. The *http://www.regulations.gov* Web site is an ''anonymous access'' system, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an e-mail comment directly to EPA without going through *http://www.regulations.gov* your e-mail address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD–ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses. For additional information about EPA's public docket visit the EPA Docket Center homepage at *http://www.epa.gov/epahome/dockets.htm.*

**FOR FURTHER INFORMATION CONTACT:** Craig Dufficy, Office of Solid Waste (mail code 5306P), Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460; telephone number: 703–308–9037; fax number: 703–308–8686; e-mail address: *dufficy.craig@epa.gov.*

**SUPPLEMENTARY INFORMATION:**

**How Can I Access the Docket and/or Submit Comments?**

EPA has established a public docket for this ICR under Docket ID No. EPA–HQ–RCRA–2008–0242, which is available for online viewing at *http://www.regulations.gov*, or in person viewing at the RCRA Docket in the EPA Docket Center (EPA/DC), EPA West, Room 3334, 1301 Constitution Ave., NW., Washington, DC. The EPA/DC Public Reading Room is open from 8 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Reading Room is 202–566–1744, and the telephone number for RCRA Docket is (202) 566–0270.

Use *http://www.regulations.gov* to obtain a copy of the draft collection of information, submit or view public comments, access the index listing of the contents of the docket, and to access those documents in the public docket that are available electronically. Once in the system, select ''search,'' then key in the docket ID number identified in this document.

**What Information Is EPA Particularly Interested in?**

Pursuant to section 3506(c)(2)(A) of the PRA, EPA specifically solicits comments and information to enable it to:

(i) 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;

(ii) 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;

(iii) enhance the quality, utility, and clarity of the information to be collected; and

(iv) 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. In particular, EPA is requesting comments from very small businesses (those that employ less than 25) on examples of specific additional efforts that EPA could make to reduce the paperwork burden for very small businesses affected by this collection.

**What Should I Consider When I Prepare My Comments for EPA?**

You may find the following suggestions helpful for preparing your comments:

1. Explain your views as clearly as possible and provide specific examples.
2. Describe any assumptions that you used.
3. Provide copies of any technical information and/or data you used that support your views.
4. If you estimate potential burden or costs, explain how you arrived at the estimate that you provide.
5. Offer alternative ways to improve the collection activity.
6. Make sure to submit your comments by the deadline identified under DATES.
7. To ensure proper receipt by EPA, be sure to identify the docket ID number assigned to this action in the subject line on the first page of your response. You may also provide the name, date, and **Federal Register** citation.

**What Information Collection Activity or ICR Does This Apply to?**

*Affected entities:* Entities potentially affected by this action are the Federal Government, and State, Local, or Tribal Governments.

*Title:* State Program Adequacy Determination: Municipal Solid Waste Landfills and Non-Municipal, Non-Hazardous Waste Disposal Units that Receive Conditionally Exempt Small Quantity Generator Hazardous Waste.

*ICR numbers:* EPA ICR No. 1608.05, OMB Control No. 2050–0152.

*ICR status:* This ICR is currently scheduled to expire on September 30, 2008. 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 OMB control numbers for EPA's regulations in title 40 of the CFR, after appearing in the **Federal Register** when approved, are listed in 40 CFR part 9 and, are displayed either by publication in the **Federal Register** or by other appropriate means, such as on the related collection instrument or form, if applicable. The display of OMB control numbers in certain EPA regulations is consolidated in 40 CFR part 9.

*Abstract:* Section 4010(c) of the Resource Conservation and Recovery Act (RCRA) of 1976 requires that EPA revise the landfill criteria promulgated under paragraph (1) of Section 4004(a) and Section 1008(a)(3). Section 4005(c) of RCRA, as amended by the Hazardous Solid Waste Amendments (HSWA) of 1984, requires states to develop and implement permit programs to ensure that MSWLFs and non-municipal, non-hazardous waste disposal units that receive household hazardous waste or CESQG hazardous waste are in compliance with the revised criteria for the design and operation of non-municipal, non-hazardous waste disposal units under 40 CFR Part 257, Subpart B and MSWLFs under 40 CFR Part 258. (40 CFR Part 257, Subpart B and 40 CFR Part 258 are henceforth referred to as the ''revised federal criteria.'') Section 4005(c) of RCRA further mandates the EPA Administrator to determine the adequacy of state permit programs to ensure owner and/or operator compliance with the revised federal criteria. A state program that is deemed adequate to ensure compliance may afford flexibility to owners or operators in the approaches they use to meet federal requirements, significantly reducing the burden associated with compliance.

In response to the statutory requirement in section 4005(c), EPA developed 40 CFR Part 239, commonly referred to as the State Implementation Rule (SIR). The SIR describes the state application and EPA review procedures and defines the elements of an adequate state permit program.

The collection of information from the state during the permit program adequacy determination process allows EPA to evaluate whether a program for which approval is requested is appropriate in structure and authority to ensure owner or operator compliance with the revised federal criteria. The SIR does not require the use of a particular application form. Section 239.3 of the SIR, however, requires that all state applications contain the following five components:

(1) A transmittal letter requesting permit program approval.

(2) A narrative description of the state permit program, including a demonstration that the state's standards for non-municipal, non-hazardous waste disposal units that receive CESQG hazardous waste are technically comparable to the Part 257, Subpart B criteria and/or that its MSWLF standards are technically comparable to the Part 258 criteria.

(3) A legal certification demonstrating that the state has the authority to carry out the program.

(4) Copies of state laws, regulations, and guidance that the state believes demonstrate program adequacy.

(5) Copies of relevant state-tribal agreements if the state has negotiated with a tribe for the implementation of a permit program for non-municipal, non-hazardous waste disposal units that receive CESQG hazardous waste and/or MSWLFs on tribal lands.

The EPA Administrator has delegated the authority to make determinations of adequacy, as contained in the statute, to the EPA Regional Administrator. The appropriate EPA Regional Office, therefore, will use the information provided by each state to determine whether the state's permit program satisfies the statutory test reflected in the requirements of 40 CFR Part 239. In all cases, the information will be analyzed to determine the adequacy of the state's permit program for ensuring compliance with the federal revised criteria.

*Burden Statement:* The annual public reporting and recordkeeping burden for this collection of information is estimated to average 115 hours per response. Burden means the total time, effort, or financial resources expended

by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements which have subsequently changed; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

The ICR provides a detailed explanation of the Agency's estimate, which is only briefly summarized here:

*Estimated total number of potential respondents:* 12.

*Frequency of response:* 0.33.

*Estimated total average number of responses for each respondent:* 1.

*Estimated total annual burden hours:* 968.

*Estimated total annual costs:* $117,586. This includes an estimated labor burden cost of $117,586 and an estimated cost of $0 for capital investment or maintenance and operational costs.

**What Is the Next Step in the Process for This ICR?**

EPA will consider the comments received and amend the ICR as appropriate. The final ICR package will then be submitted to OMB for review and approval pursuant to 5 CFR 1320.12. At that time, EPA will issue another **Federal Register** notice pursuant to 5 CFR 1320.5(a)(1)(iv) to announce the submission of the ICR to OMB and the opportunity to submit additional comments to OMB. If you have any questions about this ICR or the approval process, please contact the technical person listed under **FOR FURTHER INFORMATION CONTACT**.

Dated: April 28, 2008.

**Matthew Hale,**

*Director, Office of Solid Waste.*

[FR Doc. E8–9954 Filed 5–5–08; 8:45 am]

**BILLING CODE 6560–50–P**

## ENVIRONMENTAL PROTECTION AGENCY

**[EPA–HQ–ORD–2008–0067, FRL–8562–2]**

## Agency Information Collection Activities: Proposed Collection; Comment Request; Technology Performance and Product Information to Support Vendor Information Summaries (Renewal), EPA ICR Number 2154.03, OMB Control Number 2050–0194

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Notice.

**SUMMARY:** In compliance with the Paperwork Reduction Act (PRA) (44 U.S.C. 3501 *et seq.*), this document announces that EPA is planning to submit a continuing Information Collection Request (ICR) to the Office of Management and Budget (OMB). This is a request to renew an existing approved collection. This ICR is scheduled to expire on May 31, 2008. Under OMB regulations, the Agency may continue to conduct or sponsor the collection of information while this submission is pending at OMB. This ICR describes the nature of the information collection and its estimated burden and cost.

**DATES:** Comments must be submitted on or before June 5, 2008.

**ADDRESSES:** Submit your comments, referencing docket ID number EPA–HQ–ORD–2008–0067, to (1) EPA online using *http://www.regulations.gov* (our preferred method), by e-mail to *ord.docket@epa.gov* or by mail to: EPA Docket Center, Environmental Protection Agency, ORD Docket, Mail Code 2822T, 1200 Pennsylvania Ave., NW., Washington, DC 20460, and (2) OMB at: Office of Information and Regulatory Affairs, Office of Management and Budget (OMB), Attention: Desk Officer for EPA, 725 17th Street, NW., Washington, DC 20503.

**FOR FURTHER INFORMATION CONTACT:** Shannon D. Serre, Environmental Protection Agency, 109 T.W. Alexander Drive, E343–06, Research Triangle Park, NC, 27711; telephone number: 919–541–3817; fax number: 919–541–0496; email address: *serre.shannon@epa.gov*.

**SUPPLEMENTARY INFORMATION:** EPA has submitted the following ICR to OMB for review and approval according to the procedures prescribed in 5 CFR 1320.12. On February 12, 2008 (73 FR 8040) EPA sought comments on this ICR pursuant to 5 CFR 1320.8(d). EPA received no comments.

EPA has established a public docket for this ICR under Docket ID No. EPA–HQ–ORD–2008–0067, which is available for online viewing at *www.regulations.gov*, or in person viewing at the Office of Research and Development (ORD) Docket in the EPA Docket Center (EPA/DC), EPA West, Room 3334, 1301 Constitution Ave., NW., Washington, DC. The EPA/DC Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Reading Room is 202–566–1744, and the telephone number for the ORD Docket is 202–566–1752.

Use EPA's electronic docket and comment system at *www.regulations.gov*, to submit or view public comments, access the index listing of the contents of the docket, and to access those documents in the docket that are available electronically. Once in the system, select ''docket search,'' then key in the docket ID number identified above. Please note that EPA's policy is that public comments, whether submitted electronically or in paper, will be made available for public viewing at *www.regulations.gov* as EPA receives them and without change, unless the comment contains copyrighted material, Confidential Business Information (CBI), or other information whose public disclosure is restricted by statute. For further information about the electronic docket, go to *http://www.regulations.gov*.

*Title:* Technology Performance and Product Information to Support Vendor Information Summaries (Renewal).

*Abstract:* The U.S. EPA Office of Research and Development's National Homeland Security Research Center (NHSRC) is helping to protect human health and the environment from adverse impacts resulting from intentional acts of terror. With an emphasis on decontamination and consequence management, water infrastructure protection, and threat and consequence assessment, NHSRC scientists and engineers are working to develop tools and information that will help detect the intentional introduction of chemical, biological, and radiological contaminants in buildings or water systems, the containment of these contaminants, the decontamination of buildings and/or water systems, and the disposal of material resulting from cleanups.

An important facet of the NHSRC mission is identifying, testing, and evaluating technologies to support emergency response personnel, consequence managers, decision-makers, and government officials. EPA

has initiated this effort to develop brief vendor information summaries of available technologies relevant to the detection and decontamination of drinking water systems, building materials, building structures, and indoor air that may become contaminated with chemical, biological, or radiological contaminants. These summaries will be based upon vendor-generated or provided information including any independent, validated test data generated by governmental or other organizations and provided to EPA through this ICR. Information provided will be used to produce 4–10 page summaries on each of the technologies for which vendors voluntarily agreed to submit the requested information. These summaries will be shared with EPA and other emergency response personnel, building and facility managers, and water utility operators. The information provided by technology developers and vendors will also be used by the NHSRC's Technology Testing and Evaluation Program (TTEP) to identify technologies that may be suitable candidates for testing and evaluation and to track those technologies under development that may eventually be ready for rigorous testing and evaluation.

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 OMB control numbers for EPA's regulations in 40 CFR are listed in 40 CFR part 9 and are identified on the form and/or instrument, if applicable.

*Burden Statement:* The annual public reporting and recordkeeping burden for this collection of information is estimated to average 15 hours per response. Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements which have subsequently changed; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

*Estimated total number of potential respondents:* 70.

*Frequency of response:* On occasion.

*Estimated total average number of responses for each respondent:* 1.

*Estimated total annual burden hours:* 1050 hours.

*Estimated total annual costs:* $81,620. This includes an estimated burden cost of $81,200 and an estimated cost of $420 for capital investment or maintenance and operational costs.

*Changes in the estimates:* There is no change estimated to occur.

Dated: April 29, 2008.

**Sara Hisel-McCoy,**

*Director, Collection Strategies Division.*

[FR Doc. E8–9961 Filed 5–5–08; 8:45 am]

**BILLING CODE 6560–50–P**

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## ENVIRONMENTAL PROTECTION AGENCY

**[FRL–8562–5; Docket ID No. EPA–HQ–ORD–2008–0111]**

## Draft Toxicological Review of Cerium Oxide and Cerium Compounds:In Support of the Summary Information in the Integrated Risk Information System (IRIS)

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Notice of Peer-Review Workshop and Public Comment Period.

**SUMMARY:** EPA is announcing that Versar, Inc., under a contract with EPA, will convene an independent panel of experts and organize and conduct an external peer-review workshop to review the external review draft document entitled, ''Toxicological Review of Cerium Oxide and Cerium Compounds: In Support of Summary Information on the Integrated Risk Information System (IRIS)'' (EPA/635/R–08/002). The EPA is also announcing a public comment period for the draft document. EPA intends to consider comments and recommendations from the public and the expert panel meeting when EPA finalizes the draft document.

The public comment period and the external peer-review workshop are separate processes that provide opportunities for all interested parties to comment on the document. EPA intends to forward public comments, submitted in accordance with this notice, to the external peer-review panel prior to the workshop for their consideration.

EPA is releasing this draft document solely for the purpose of pre-dissemination peer review under applicable information quality guidelines. This document has not been formally disseminated by EPA. It does not represent and should not be construed to represent any Agency policy or determination.

Versar, Inc., invites the public to register to attend this workshop as observers. In addition, Versar, Inc., invites the public to give brief oral comments at the workshop regarding the draft document under review. The draft document and EPA's peer review charge are available via the Internet on NCEA's home page or Recent Additions at *http://www.epa.gov/ncea* and is also accessible from the IRIS home page or Recent Additions at *http://www.epa.gov/iris.* When finalizing the draft document, EPA intends to consider any public comments that EPA receives in accordance with this notice.

**DATES:** The peer-review panel workshop will be held on July 8, 2008, at 9 a.m. The 60-day public comment period begins on May 5, 2008, and ends June 30, 2008. Technical comments should be in writing and must be received by EPA by June 30, 2008. EPA intends to submit comments from the public received by this date to Versar, Inc., prior to the workshop for consideration by the panel.

**ADDRESSES:** The peer-review workshop will be held at the Courtyard by Marriott Crystal City, 2899 Jefferson Davis Highway, Arlington, VA 22202. Versar, Inc., is organizing, convening, and conducting the peer-review workshop. To attend the workshop, register by July 1, 2008, via the Internet at *http://epa.versar.com/cerium/.* You may also register by calling Karie Riley at 757–227–9552, or sending an e-mail to *kriley@versar.com.* You must register by July 1, 2008, and indicate whether you wish to provide brief oral comments at the workshop.

The draft ''Toxicological Review of Cerium Oxide and Cerium Compounds: In Support of Summary Information on the Integrated Risk Information System (IRIS)'' is available via the Internet on NCEA's home page or Recent Additions at *http://www.epa.gov/ncea* and is also accessible from the IRIS home page or Recent Additions at *http://www.epa.gov/iris.* A limited number of paper copies are available from NCEA's Information Management Team; telephone: 703–347–8561; facsimile: 703–347–8691. If you are requesting a paper copy, please provide your name, mailing address, and the document title.

Comments may be submitted electronically via *http://www.regulations.gov*, by mail, by facsimile, or by hand delivery/courier. Please follow the detailed instructions

as provided in the **SUPPLEMENTARY INFORMATION** section of this notice.

**FOR FURTHER INFORMATION CONTACT:** For information on the peer review workshop, contact Karie Riley at 757–227–9552, or by e-mail at *kriley@versar.com.* For information on the public comment period, contact the Office of Environmental Information Docket; telephone: 202–566–1752; facsimile: 202–566–1753; or e-mail: *ORD.Docket@epa.gov.* If you have questions about the document, contact Martin Gehlhaus, IRIS Staff, National Center for Environmental Assessment, (8601P), U.S. EPA, 1200 Pennsylvania Avenue, NW., Washington, DC 20460; telephone: 703–347–8579; e-mail: *gehlhaus.martin@epa.gov.*

**SUPPLEMENTARY INFORMATION:**

## I. Summary of Information About the Integrated Risk Information System (IRIS)

IRIS is a database that contains potential adverse human health effects information that may result from chronic (or lifetime) exposure to specific chemical substances found in the environment. The database (available on the Internet at *http://www.epa.gov/iris*) contains qualitative and quantitative health effects information for more than 540 chemical substances that may be used to support the first two steps (hazard identification and dose-response evaluation) of a risk assessment process. When supported by available data, the database provides oral reference doses (RfDs) and inhalation reference concentrations (RfCs) for chronic health effects, and oral slope factors and inhalation unit risks for carcinogenic effects. Combined with specific exposure information, government and private entities can use IRIS data to help characterize public health risks of chemical substances in a site-specific situation and thereby support risk management decisions designed to protect public health.

## II. Workshop Information

Members of the public may attend the workshop as observers, and there will be a limited time for oral comments from the public. Please let Versar, Inc., know if you wish to make comments during the workshop prior to the meeting by registering on the Web site at *http://epa.versar.com/cerium/* and indicating your intent to make oral comments. Space is limited, and reservations will be accepted on a first-come, first-served basis.

## III. How To Submit Technical Comments to the Docket at *http://www.regulations.gov*

Submit your comments, identified by Docket ID No. EPA–HQ–ORD–2008–0111 by one of the following methods:

- *http://www.regulations.gov:* Follow the on-line instructions for submitting comments.
- *E-mail: ORD.Docket@epa.gov.*
- *Fax:* 202–566–1753.
- *Mail:* Office of Environmental Information (OEI) Docket (Mail Code: 2822T), U.S. Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460. The phone number is 202–566–1752.
- *Hand Delivery:* The OEI Docket is located in the EPA Headquarters Docket Center, EPA West Building, Room 3334, 1301 Constitution Ave., NW., Washington, DC. The EPA Docket Center Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is 202–566–1744. Such deliveries are only accepted during the docket's normal hours of operation, and special arrangements should be made for deliveries of boxed information.

If you provide comments by mail or hand delivery, please submit one unbound original with pages numbered consecutively, and three copies of the comments. For attachments, provide an index, number pages consecutively with the comments, and submit an unbound original and three copies.

*Instructions:* Direct your comments to Docket ID No. EPA–HQ–ORD–2008–0111. Please ensure that your comments are submitted within the specified comment period. Comments received after the closing date will be marked ''late,'' and may only be considered if time permits. It is EPA's policy to include all comments it receives in the public docket without change and to make the comments available online at *http://www.regulations.gov*, including any personal information provided, unless a comment includes information claimed to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected through *http://www.regulations.gov* or e-mail. The *http://www.regulations.gov* Web site is an ''anonymous access'' system, which means EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an e-mail comment directly to EPA without going through *http://www.regulations.gov*, your e-mail address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, EPA recommends that you include your name and other contact information in the body of your comment and with any disk or CD–ROM you submit. If EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, EPA may not be able to consider your comment. Electronic files should avoid the use of special characters, any form of encryption, and be free of any defects or viruses. For additional information about EPA's public docket visit the EPA Docket Center homepage at *http://www.epa.gov/epahome/dockets.htm.*

*Docket:* All documents in the docket are listed in the *http://www.regulations.gov* index. Although listed in the index, some information is not publicly available, e.g., CBI or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, will be publicly available only in hard copy. Publicly available docket materials are available either electronically in *http://www.regulations.gov* or in hard copy at the OEI Docket in the EPA Headquarters Docket Center.

Dated: April 24, 2008.

**Rebecca Clark,**

*Deputy Director, National Center for Environmental Assessment.*

[FR Doc. E8–9947 Filed 5–5–08; 8:45 am]

BILLING CODE 6560–50–P

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# FEDERAL ELECTION COMMISSION

**[Notice 2008–07]**

## Filing Dates for the Maryland Special Election in the 4th Congressional District

**AGENCY:** Federal Election Commission.

**ACTION:** Notice of filing dates for special election.

**SUMMARY:** Maryland has scheduled a Special General Election on June 17, 2008, to fill the U.S. House of Representatives seat in the Fourth Congressional District vacated by Representative Albert R. Wynn.

Committees participating in the Maryland Special General Election on June 17, 2008, shall file a 12-day Pre-General Report, and a 30-day Post-General Report.

**FOR FURTHER INFORMATION CONTACT:** Mr. Kevin R. Salley, Information Division,

999 E Street, NW., Washington, DC 20463; Telephone: (202) 694–1100; Toll Free (800) 424–9530.

**SUPPLEMENTARY INFORMATION:**

**Principal Campaign Committees**

All principal campaign committees of candidates who participate in the Maryland Special General Election shall file a 12-day Pre-General Report on June 5, 2008; and a 30-day Post-General Report on July 17, 2008. (See chart below for the closing date for each report).

**Unauthorized Committees (PACs and Party Committees)**

Political committees filing on a quarterly basis in 2008 are subject to special election reporting if they make previously undisclosed contributions or expenditures in connection with the Maryland Special General Election by the close of books for the applicable report(s). (See chart below for the closing date for each report.)

Committees filing monthly that support candidates in the Maryland Special General Election should continue to file according to the monthly reporting schedule.

Additional disclosure information in connection with the Maryland Special General Election may be found on the FEC Web site at *http://www.fec.gov/info/report_dates.shtml*.

CALENDAR OF REPORTING DATES FOR MARYLAND SPECIAL ELECTION

[Committees involved in the Special General (06/17/08), must file:]

| Report | Close of books [1] | Reg./cert. & overnight mailing deadline | Filing deadline |
|---|---|---|---|
| Pre-General | 05/28/08 | 06/02/08 | 06/05/08 |
| July Quarterly | | —WAIVED— | |
| Post-General | 07/07/08 | 07/17/08 | 07/17/08 |
| October Quarterly | 09/30/08 | 10/15/08 | 10/15/08 |

[1] The reporting period always begins the day after the closing date of the last report filed. If the committee is new and has not previously filed a report, the first report must cover all activity that occurred before the committee registered up through the close of books for the first report due.

Dated: April 29, 2008.

**David M. Mason,**

*Chairman, Federal Election Commission.*

[FR Doc. E8–9859 Filed 5–5–08; 8:45 am]

**BILLING CODE 6715–01–P**

## FEDERAL RESERVE SYSTEM

### Formations of, Acquisitions by, and Mergers of Bank Holding Companies

The companies listed in this notice have applied to the Board for approval, pursuant to the Bank Holding Company Act of 1956 (12 U.S.C. 1841 *et seq.*) (BHC Act), Regulation Y (12 CFR Part 225), and all other applicable statutes and regulations to become a bank holding company and/or to acquire the assets or the ownership of, control of, or the power to vote shares of a bank or bank holding company and all of the banks and nonbanking companies owned by the bank holding company, including the companies listed below.

The applications listed below, as well as other related filings required by the Board, are available for immediate inspection at the Federal Reserve Bank indicated. The application also will be available for inspection at the offices of the Board of Governors. Interested persons may express their views in writing on the standards enumerated in the BHC Act (12 U.S.C. 1842(c)). If the proposal also involves the acquisition of a nonbanking company, the review also includes whether the acquisition of the nonbanking company complies with the standards in section 4 of the BHC Act (12 U.S.C. 1843). Unless otherwise noted, nonbanking activities will be conducted throughout the United States. Additional information on all bank holding companies may be obtained from the National Information Center website at *www.ffiec.gov/nic/*.

Unless otherwise noted, comments regarding each of these applications must be received at the Reserve Bank indicated or the offices of the Board of Governors not later than June 2, 2008.

**A. Federal Reserve Bank of Chicago** (Burl Thornton, Assistant Vice President) 230 South LaSalle Street, Chicago, Illinois 60690-1414:

*1. IBT Bancorp, Inc., Mt. Pleasant, Michigan;* to retain more than 5 percent of the voting shares of Valley Financial Group, Ltd, Saginaw, Michigan, and thereby indirectly retain shares of 1st State Bank, Saginaw, Michigan.

**B. Federal Reserve Bank of St. Louis** (Glenda Wilson, Community Affairs Officer) 411 Locust Street, St. Louis, Missouri 63166-2034:

*1. Central Bancompany, Inc., Jefferson City, Missouri;* to acquire 100 percent of Guaranty Bancshares, Inc., Strafford, Missouri, and thereby indirectly acquire The Greene County Bank, Strafford, Missouri.

Board of Governors of the Federal Reserve System, May 1, 2008.

**Jennifer J. Johnson,**

*Secretary of the Board.*

[FR Doc. E8–9938 Filed 5–5–08; 8:45 am]

**BILLING CODE 6210–01–S**

## FEDERAL RESERVE SYSTEM

**[Docket No. OP–1312]**

### Privacy Act of 1974; Notice of Amendment of Systems of Records

**AGENCY:** Board of Governors of the Federal Reserve System.

**ACTION:** Notice; amendment of systems of records.

**SUMMARY:** Pursuant to the provisions of the Privacy Act of 1974, notice is given that the Board of Governors of the Federal Reserve System (Board) proposes to add two new systems, BGFRS–2 (Personnel Security Systems) and BGFRS–36 (Federal Reserve Application Name Check System), and delete two existing systems, BGFRS–15 (General Files of Federal Reserve Agents, Alternates and Representatives at Federal Reserve Banks) and BGFRS–22 (Chain Banking Reference System). The Board also proposes to modify all of the Board's remaining systems of records to ensure that the information maintained is compatible with the purposes for which the information is collected and that the systems are otherwise consistent with existing Board practices, policies and legal requirements.

**DATES:** Comments must be received on or before June 5, 2008. These systems of records will become effective June 16, 2008, without further notice, unless comments dictate otherwise.

**ADDRESSES:** The public, OMB, and Congress are invited to submit comments, identified by Docket No. OP–1312, by any of the following methods:

- *Agency Web Site: http://www.federalreserve.gov.* Follow the instructions for submitting comments. *http://www.federalreserve.gov/generalinfo/foia/ProposedRegs.cfm.*
- *Federal eRulemaking Portal: http://www.regulations.gov.* Follow the instructions for submitting comments.
- *E-mail: regs.comments@federalreserve.gov.* Include docket number in the subject line of the message.
- *FAX:* 202/452–3819 or 202/452–3102.
- *Mail:* Jennifer J. Johnson, Secretary, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

All public comments are available from the Board's Web site at *http://www.federalreserve.gov/generalinfo/foia/ProposedRegs.cfm* as submitted, except as necessary for technical reasons. Accordingly, your comments will not be edited to remove any identifying or contact information. Public comments may also be viewed electronically or in paper in Room MP–500 of the Board's Martin Building (20th and C Streets, NW.) between 9 a.m. and 5 p.m. on weekdays.

**FOR FURTHER INFORMATION CONTACT:** Brad Fleetwood, Senior Counsel, Legal Division, Board of Governors of the Federal Reserve System, 20th and C Streets, NW., Mail Stop 17, Washington, DC 20551, or (202) 452–3721, or *brad.fleetwood@frb.gov.* For users of Telecommunications Device for the Deaf (TDD) only, contact (202) 263–4869.

In accordance with 5 U.S.C. 552a(r), a report of this amended system of records is being filed with the Chair of the House Committee on Oversight and Government Reform, the Chair of the Senate Committee on Homeland Security and Governmental Affairs, and the Office of Management and Budget.

**SUPPLEMENTARY INFORMATION:** The Board recently completed a review of its Privacy Act systems of record. During that review, the Board determined that it needed to create a system of records for personnel security information. The Board previously maintained a similar system (BGFRS–2, Personnel Background Investigations Reports), but deleted this system because it duplicated the government-wide system of records maintained by the Office of Personnel Management (OPM). However, the Board has determined that it keeps records not maintained by OPM. Thus, the Board has determined that it is necessary to create a system for personnel security information, BGFRS–2 (Personnel Security Systems). The Board also determined that it needed to create a system of records for name check information. The Board performs name checks on the proposed officers, directors, principal shareholders, or other persons associated with a depository institution, holding company, or other foreign or domestic entity in connection with the Board's consideration of various regulatory applications, notices, or proposals. The Board uses these records, along with other information, to determine whether the related filing meets the statutory factors for approval. Thus, the Board has determined that it is necessary to create a system for name check information, BGFRS–36 (Federal Reserve Application Name Check System).

Additionally, during the review, the Board determined that the BGFRS–15 (General Files of Federal Reserve Agents, Alternates and Representatives at Federal Reserve Banks) and BGFRS–22 (Chain Banking Reference System) contain no records and that the systems are no longer used or maintained by the Board. Thus, the Board determined that it was necessary to delete BGFRS–15 and BGFRS–22.

The Board also determined that it needed to modify the Board's remaining systems of records. In addition to making minor modifications so that each system contained consistent information, the Board updated each system's exemptions and routine uses to ensure that all of the routine uses are listed and accurate. In the process of updating the routine uses, the Board determined that it would be most efficient to standardize its most frequently used routine uses. Thus, the Board created standard routine uses A–I. General routine uses A–H were previously listed in most Board systems. General routine use I was added in accordance with a recommendation issued by the President's Identity Theft Task Force that all agencies add a routine use for disclosure where security or confidentiality has been compromised. The Board's general routine uses and updated systems of records are published herein.

**General Routine Uses**

A. *Disclosure for Enforcement, Statutory and Regulatory Purposes.* Information may be disclosed to the appropriate federal, state, local, foreign, or self-regulatory organization or agency responsible for investigating, prosecuting, enforcing, implementing, issuing, or carrying out a statute, rule, regulation, order, policy, or license if the information may be relevant to a potential violation of civil or criminal law, rule, regulation, order, policy or license.

B. *Disclosure to Another Agency or a Federal Reserve Bank.* Information may be disclosed to a federal agency in the executive, legislative, or judicial branch of government, or to a Federal Reserve Bank, in connection with the hiring, retaining, or assigning of an employee, the issuance of a security clearance, the conducting of a security or suitability investigation of an individual, the classifying of jobs, the letting of a contract, the issuance of a license, grant, or other benefits by the receiving entity, or the lawful statutory, administrative, or investigative purpose of the receiving entity to the extent that the information is relevant and necessary to the receiving entity's decision on the matter.

C. *Disclosure to a Member of Congress.* Information may be disclosed to a congressional office in response to an inquiry from the congressional office made at the request of the individual to whom the record pertains.

D. *Disclosure to the Department of Justice, a Court, an Adjudicative Body or Administrative Tribunal, or a Party in Litigation.* Information may be disclosed to the Department of Justice, a court, an adjudicative body or administrative tribunal, a party in litigation, or a witness if the Board (or in the case of an OIG system, the OIG) determines, in its sole discretion, that the information is relevant and necessary to the matter.

E. *Disclosure to Federal, State, Local, and Professional Licensing Boards.* Information may be disclosed to federal, state, local, foreign, and professional licensing boards, including a bar association, a Board of Medical Examiners, a state board of accountancy, or a similar governmental or non-government entity that maintains records concerning the issuance, retention, or revocation of licenses, certifications, or registrations relevant to practicing an occupation, profession, or specialty.

F. *Disclosure to the EEOC, MSPB, OGE and OSC.* Information may be disclosed to the Equal Employment Opportunity Commission, the Merit Systems Protection Board, the Office of Government Ethics, or the Office of Special Counsel to the extent determined to be relevant and necessary to carrying out their authorized functions.

G. *Disclosure to Contractors, Agents, and Others.* Information may be

disclosed to contractors, agents, or others performing work on a contract, service, cooperative agreement, job, or other activity for the Board and who have a need to access the information in the performance of their duties or activities for the Board.

H. *Disclosure to Labor Relations Panels.* Information may be disclosed to the Federal Reserve Board Labor Relations Panel or the Federal Reserve Banks Labor Relations Panel in connection with the investigation and resolution of allegations of unfair labor practices or other matters within the jurisdiction of the relevant panel when requested.

I. *Disclosure Where Security or Confidentiality Has Been Compromised.* Information may be disclosed when (1) it is suspected or confirmed that the security or confidentiality of information in the system of records has been compromised; (2) the Board has determined that as a result of the suspected or confirmed compromise there is a risk of harm to economic or property interests, identity theft or fraud, or harm to the security or integrity of this system or other systems or programs (whether maintained by the Board or another agency or entity) that rely upon the compromised information; and (3) the disclosure is made to such agencies, entities, and persons who are reasonably necessary to assist in connection with the Board's efforts to respond to the suspected or confirmed compromise and prevent, minimize, or remedy such harm.

The Board also determined that modifications should be made to the Board's remaining systems of records based on input from the records system owner (or his or her designee) to ensure both that the systems accurately describe current recordkeeping and disclosure practices and that their routine uses are consistent and accurate. Generally, these updates were non-substantive in nature. However, in certain instances, substantive changes were made to ensure that the system of records notice accurately reflected the actual or desirable practice of the Board.

The majority of the substantive changes involved adding certain designated general routine uses to certain of the Board's systems of records. Most systems already provided for disclosure of records for enforcement, statutory and regulatory purposes; to a member of Congress; to the Department of Justice, a court, an adjudicative body or administrative tribunal, or a party in litigation; and to contractors, agents, and others. Where a system did not include these routine uses, they were added (except for those systems where such use would be incompatible with the purpose for which the records were collected), because the Board may generally disclose records for these purposes. This change resulted in amendments of the following systems: BGFRS–5 (EEO Discrimination Complaint File), BGFRS–9 (Supplier Files), BGFRS–10 (General Files on Board Members), BGFRS–11 (Official General Files), BGFRS–14 (General File of Reserve Bank and Branch Directors), BGFRS–16 (Regulation U Report of Nonbank Lenders), BGFRS–17 (Municipal or Government Securities Principals and Representatives), BGFRS–21 (Supervisory Enforcement Actions and Special Examinations Tracking System), BGFRS–24 (EEO General Files), BGFRS–25 (Multi-Rater Feedback), BGFRS–31 (Protective Information System), BGFRS–32 (Visitor Registration), BGFRS–33 (Telephone Call Detail Records), BGFRS–34 (ESS Staff Identification Card File), BGFRS–35 (Federal Reserve Application Name Check System), OIG–1 (FRB–OIG Investigative Records), and OIG–2 (OIG Personnel Records).

Similarly, a routine use permitting disclosure to federal and state professional licensing boards and similar entities was added to: BGFRS–5 (EEO Discrimination Complaint File), BGFRS–6 (Disciplinary and Adverse Action Records), BGFRS–12 (Bank Officers Personnel System), BGFRS–17 (Municipal or Government Securities Principals and Representatives), BGFRS–27 (Performance Management Program Records), OIG–1 (FRB–OIG Investigative Records), and OIG–2 (OIG Personnel Records). A routine use permitting disclosure to the EEOC and other government agencies in connection with those agencies' functions was added to: BGFRS–5 (EEO Discrimination Complaint File), BGFRS–24 (EEO General Files), BGFRS–33 (Telephone Call Detail Records), OIG–1 (FRB–OIG Investigative Records), and OIG–2 (OIG Personnel Records). A routine use permitting disclosure to another agency or a Federal Reserve Bank in both connection with background or security checks for Board employees or contractors or in connection with those agencies or a Reserve Bank's functions was added to: BGFRS–18 (Consumer Complaint Information) and BGFRS–34 (ESS Staff Identification Card File). A routine use permitting disclosure to Labor Relations Panels in connection with investigation and resolution of unfair labor practices was added to BGFRS–12 (Bank Officers Personnel System).

In addition, virtually every system was amended in a manner consistent with the recommendation of the President's Identity Theft Task Force to add a routine use for disclosure to agencies, entities, and persons involved in an effort to respond to a suspected or confirmed breach of the security or confidentiality of information.

The Board also added new, individualized routine uses to certain systems of records to ensure that systems' notices accurately reflected the existing and anticipated recordkeeping and disclosure practices. In BGFRS–3 (Medical Records), BGFRS–4 (General Personnel Records), and BGFRS–29 (Benefits Records), the Board added a routine use that permits the Board to disclose information to an emergency contact in the event of an emergency to assist the individual in obtaining certain benefits. BGFRS–4 (General Personnel Records) was also modified to add a routine use that permits the Board to disclose information to federal, state and local agencies necessary to comply with laws regarding communicable diseases. BGFRS–29 (Benefits Records) was further modified to add a routine use that permits the Board to disclose information to the Office of Personnel Management in connection with employee participation in the Federal Employee Group Life Insurance Program and Thrift Savings Plan. In BGFRS–7 (Payroll and Leave Records), the Board added a routine use that permits the disclosure of information to an entity preparing a mortgage or other loan to an employee to verify employment status and salary, at the request of the individual. In BGFRS–8 (Travel Records), the Board added a routine use that permits the disclosure of information for purposes of monitoring travel and enabling audits of common carrier charges to the Federal government. In BGFRS–20 (Survey of Consumer Finances), the Board amended the routine uses to indicate that the records in the system are protected under the Confidential Information Protection and Statistical Efficiency Act (CIPSEA) and that disclosure is made only to the extent permitted under CIPSEA. In OIG–2 (Office of Inspector General Personnel Records), the Board added a routine use that permits the OIG to disclose information to government officials charged with the responsibility to conduct qualitative assessment reviews of internal safeguards and management procedures.

The Board also updated each system's records retention period to be consistent with the National Archives and Records Administration's General Record

Schedules and Board-specific records retention and disposition schedules. Moreover, consistent with the Board's newly updated Privacy Act regulation (12 CFR 261a), the notification procedures, records access procedures, and contesting record procedures for each system have been updated to reflect the fact that all inquiries and requests regarding Privacy Act systems of records should be directed to the Secretary of the Board.

## Systems of Records

### BGFRS–1

**SYSTEM NAME:**

FRB—Recruiting and Placement Records.

**SYSTEM LOCATION:**

Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

Some information, primarily resumes, is collected and maintained, on behalf of the Board, by IBM at 375 Riverside Parkway, Lithia Springs, GA 30122.

Paper resumes are collected and maintained, on behalf of the Board, by Staffing Outsourcing Solutions, LLC at 6267 S. Front Road, Livermore, CA 94551.

**CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:**

Persons who have applied for employment with the Federal Reserve Board.

**CATEGORIES OF RECORDS IN THE SYSTEM:**

Resumes, applications, and supporting documentation submitted by persons seeking employment; information from job fairs; referrals from Federal Reserve Banks and other federal government agencies; transcripts or notes from interviews with some applicants; notes of interviews with references; information regarding verification of education and/or military status; some employment inquiries (and responses) sent to the Chairman or other governors or officials of the Board; and offer letters and related correspondence. Certain information is retained in an electronic database to enable the Board's Equal Employment Opportunity Office to monitor and track its recruiting and hiring performance.

**AUTHORITY FOR MAINTENANCE OF THE SYSTEM:**

Sections 10 and 11 of the Federal Reserve Act (12 U.S.C. 244 and 248).

**PURPOSE(S):**

These records are collected and maintained to assist the Board in recruiting and retaining qualified employees, and to allow the Board to periodically review its hiring practices.

**ROUTINE USES OF RECORDS MAINTAINED IN THE SYSTEM, INCLUDING CATEGORIES OF USERS AND THE PURPOSES OF SUCH USES:**

General routine uses A, B, C, D, E, F, G, H, and I apply to this system. Records may also be used to disclose information to any source from which additional information is requested (to the extent necessary to identify the individual, inform the source of the purpose(s) of the request, and to identify the type of information requested), when necessary to obtain information relevant to a Board decision to hire or retain an employee, issue a security clearance, conduct a security or suitability investigation of an individual, classify jobs, let a contract, or issue a license, grant, or other benefits.

**POLICIES AND PRACTICES FOR STORING, RETRIEVING, ACCESSING, RETAINING, AND DISPOSING OF RECORDS IN THE SYSTEM:**

*Storage.* Records are stored in paper and electronic form.

*Retrievability.* Paper records can be retrieved by year or job category, not by individually identifiable labels. Electronic records can be retrieved by name or other identifying aspects.

*Access Controls.* Access to records is limited to those whose official duties require it. Paper records are secured by lock and key and electronic records are password protected.

*Retention and disposal.* The retention period for resumes is currently under review. Until review is completed, those records will not be destroyed. All other records are retained for the appropriate period which ranges from no retention period to one year after separation or transfer.

**SYSTEM MANAGER AND ADDRESS:**

Manager, Staffing, ER and Clearances, Management Division, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

**NOTIFICATION PROCEDURES:**

An individual desiring to learn of the existence of, or to gain access to, his or her record in this system of records shall submit a request in writing to the Secretary of the Board, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551. The request should contain: (1) A statement that it is made pursuant to the Privacy Act of 1974, (2) the name of the system of records expected to contain the record requested or a concise description of such system of records, (3) necessary information to verify the identity of the requester, and (4) any other information that may assist in the rapid identification of the record for which access is being requested.

**RECORD ACCESS PROCEDURES:**

Same as ''Notification procedures'' above.

**CONTESTING RECORD PROCEDURES:**

Same as ''Notification procedures'' above except that the envelope should be clearly marked ''Privacy Act Amendment Request.'' The request for amendment of a record should: (1) Identify the system of records containing the record for which amendment is requested, (2) specify the portion of that record requested to be amended, and (3) describe the nature of and reasons for each requested amendment.

**RECORD SOURCE CATEGORIES:**

Information is provided by the individual to whom the record pertains; the transcript or notes from interviews with the individual; notes from interviews and supporting documentation from references; personnel records of other government civilian or military agencies or Federal Reserve Banks; and official transcripts and other documentation from schools identified by the individual.

**EXEMPTIONS CLAIMED FOR THE SYSTEM:**

Certain portions of this system of records may be exempt from 5 U.S.C. 552a(c)(3), (d), (e)(1), (e)(4)(G), (H), and (I), and (f) of the Privacy Act pursuant to subsections 5 U.S.C. 552a(k)(2) and (k)(5).

### BGFRS–2

**SYSTEM NAME:**

FRB—Personnel Security Systems.

**SYSTEM LOCATION:**

Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

**CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:**

Past and present employees of the Board of Governors; and Federal Reserve System employees, contractors, employees of contractors, experts, instructors, and consultants to the Board considered for access to classified information or restricted areas or for security determinations; and individuals who are neither applicants nor employees of the Board but are or were involved in Board programs under a cooperative assignment or similar agreement.

**CATEGORIES OF RECORDS IN THE SYSTEM:**

Investigative information (including personal identifiable information) regarding an individual's character, financial responsibility, conduct, and/or behavior; arrests and convictions for any violations of law; reports of interviews with former supervisors, co-workers, associates, educators, etc.; reports about the qualifications of an individual for a specific position; reports of inquiries with law enforcement agencies; former employers; educational institutions attended; and other information developed from the above. This system does not include investigative reports provided by OPM. Investigative Reports provided by OPM are maintained in a government-wide system of records (OPM/CENTRAL–9) and requests for access to or amendment of such reports should be made to the Federal Investigations Processing Center.

**AUTHORITY FOR MAINTENANCE OF THE SYSTEM:**

Sections 10 and 11 of the Federal Reserve Act (12 U.S.C. 243 and 248), and Executive Order 9397.

**PURPOSE(S):**

These records are collected and maintained to assist the Board in making suitability determinations.

General routine uses A, B, C, D, G, and I apply to this system. Records may also be used:

1. To disclose information to assist in determining the suitability for access to classified information;

2. To disclose information to the intelligence agencies of the Department of Defense, National Security Agency, Central Intelligence Agency, the White House and the Federal Bureau of Investigation, and any other intelligence agency of the United States, for use in intelligence activities; and

3. To disclose information to any source from which information is requested by the Board in the course of an investigation, to the extent necessary to identify the individual, inform the source of the nature and purpose of the investigation and to identify the type of information requested.

**POLICIES AND PRACTICES FOR STORING, RETRIEVING, ACCESSING, RETAINING, AND DISPOSING OF RECORDS IN THE SYSTEM:**

*Storage.* Records are stored in paper and electronic form.

*Retrievability.* Records can be retrieved by name or social security number.

*Access Controls.* Access to records is limited to those whose official duties require it. Paper records are secured by lock and key and electronic records are password protected.

*Retention and disposal.* All case files are retained until the earlier of individual's death or five years after the end of the employment or contract relationship and all investigative reports are retained in accordance with the instructions of the investigative agency. Electronic records will be stored online at least six months at the end of an investigation/case.

**SYSTEM MANAGER AND ADDRESS:**

Manager, Staffing, ER and Clearances, Management Division, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

**NOTIFICATION PROCEDURES:**

An individual desiring to learn of the existence of, or to gain access to, his or her record in this system of records shall submit a request in writing to the Secretary of the Board, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551. The request should contain: (1) A statement that it is made pursuant to the Privacy Act of 1974, (2) the name of the system of records expected to contain the record requested or a concise description of such system of records, (3) necessary information to verify the identity of the requester, and (4) any other information that may assist in the rapid identification of the record for which access is being requested.

**RECORD ACCESS PROCEDURES:**

Same as ''Notification procedures'' above.

**CONTESTING RECORD PROCEDURES:**

Same as ''Notification procedures'' above except that the envelope should be clearly marked ''Privacy Act Amendment Request.'' The request for amendment of a record should: (1) Identify the system of records containing the record for which amendment is requested, (2) specify the portion of that record requested to be amended, and (3) describe the nature of and reasons for each requested amendment. Record source categories:

Information is provided by applications and other personnel and security forms furnished by the individual, investigative material furnished by other federal agencies (including notices of personnel actions), personal investigation or written inquiry from sources such as employers, schools, references, neighbors, associates, police departments, courts, credit bureau, medical records, probation officials, and prison officials, newspapers, magazines, periodicals, and other publications, and published hearings of congressional committees.

**EXEMPTIONS CLAIMED FOR THE SYSTEM:**

Certain portions of this system of records may be exempt from 5 U.S.C. 552a(c)(3), (d), (e)(1), (e)(4)(G), (H), and (I) and (f) of the Privacy Act pursuant to 5 U.S.C. 552a(k)(2) and (k)(5).

## BGFRS–3

**SYSTEM NAME:**

FRB—Medical Records.

**SYSTEM LOCATION:**

Board of Governors of the Federal Reserve System 20th Street and Constitution Avenue, NW., Washington, DC 20551.

Information relating to blood work on employees is collected and maintained on behalf of the Board by Quest Diagnostics Inc., at 1901 Sulphur Spring Road, Baltimore, MD 21227.

Information relating to drug testing under the Drug-Free Workplace Plan is collected and maintained on behalf of the Board by Pembrooke at 2307 North Parham Road, Richmond, VA 23229.

**CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:**

Past and present Board employees (including special employees); applicants who have been medically examined for Board employment; and visitors who receive medical treatment at the Board.

**CATEGORIES OF RECORDS IN THE SYSTEM:**

Pre-employment medical examinations of potential employees; yearly fit-for-duty examinations for employees whose jobs have medical standards; periodic medical examinations of employees; treatment or advice provided by the Health Unit's staff to an employee or visitor; any medical information provided to the Health Unit by an employee; an employee's participation in an occupational health services program; information pertaining to an employee's workers' compensation claim; information pertaining to the Board's Drug-Free Workplace Plan; and employees' use of the Board's exercise facilities.

**AUTHORITY FOR MAINTENANCE OF THE SYSTEM:**

Sections 10 and 11 of the Federal Reserve Act (12 U.S.C. 244 and 248), Executive Order 12564, and the Rehabilitation Act of 1973.

**PURPOSE(S):**

These records are collected and maintained to assist the Board in determining an employee's fitness for duty and eligibility for benefits based on

medical information, to assist the Board in providing a safe and healthy working environment, and to comply with Executive Order 12564.

**ROUTINE USES OF RECORDS MAINTAINED IN THE SYSTEM, INCLUDING CATEGORIES OF USERS AND THE PURPOSES OF SUCH USES:**

Employee medical information that is obtained under the Rehabilitation Act may be used only in accordance with the confidentiality provisions of the Rehabilitation Act. General routine uses A, B, C, D, F, G, H, and I apply to this system. Records may also be used:

1. To disclose information to the Board's Thrift Plan, the Board's Group Life Insurance administrators, Department of Labor, Department of Veterans Affairs, Social Security Administration, Federal Retirement Thrift Investment Board, or a national, state, or local Social Security-type agency, when necessary to adjudicate a claim (filed by or on behalf of the individual) under a retirement, insurance, or health benefit program;

2. To disclose information to a federal, state, or local agency to the extent necessary to comply with laws governing reporting of communicable disease or when it is reasonably believed that an individual might have contracted an illness or been exposed to or suffered from a health hazard while employed in the federal work force;

3. To disclose to health insurance carriers that provide a health benefits plan under the Federal Employees Health Benefits Program information that is necessary to verify eligibility for payment of a claim for health benefits; and

4. To disclose information to the executor of an individual's estate, the government entity probating a will, a designated beneficiary, or to any person who is responsible for the care of an individual to the extent necessary when the individual to whom a record pertains is deceased, mentally incompetent, or under other legal disability, and to disclose information to an individual's emergency contact, or, if the emergency contact is unavailable, to any person who the Board believes is assisting the individual, when necessary to assist that individual in obtaining any employment benefit or any working condition, such as an accommodation under the Rehabilitation Act of 1973.

**POLICIES AND PRACTICES FOR STORING, RETRIEVING, ACCESSING, RETAINING, AND DISPOSING OF RECORDS IN THE SYSTEM:**

*Storage.* Records are stored in paper form.

*Retrievability.* Records can be retrieved by name.

*Safeguards.* Access to records is limited to those whose official duties require it. Paper records are secured by lock and key.

*Retention and disposal.* All records are retained in accordance with the general records schedule. Individual non-occupational health records are destroyed six years after the last entry; personal injury files are destroyed three years after the termination of compensation or the time for filing a claim has passed; temporary or short-term records kept in an 19.\employee's medical folder are destroyed one year after separation or transfer; and long term medical records kept in an employee's medical folder are destroyed 75 years after the birth date of employee, or if the birth date cannot be ascertained, 60 years after date of the earliest document in the folder, or 30 years after latest separation, whichever is later.

**SYSTEM MANAGER AND ADDRESS:**

Manager, Health and Safety, Management Division, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

**NOTIFICATION PROCEDURES:**

An individual desiring to learn of the existence of, or to gain access to, his or her record in this system of records shall submit a request in writing to the Secretary of the Board, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551. The request should contain: (1) A statement that it is made pursuant to the Privacy Act of 1974, (2) the name of the system of records expected to contain the record requested or a concise description of such system of records, (3) necessary information to verify the identity of the requester, and (4) any other information that may assist in the rapid identification of the record for which access is being requested.

**RECORD ACCESS PROCEDURES:**

Same as ''Notification procedures'' above.

**CONTESTING RECORD PROCEDURES:**

Same as ''Notification procedures'' above except that the envelope should be clearly marked ''Privacy Act Amendment Request.'' The request for amendment of a record should: (1) Identify the system of records containing the record for which amendment is requested, (2) specify the portion of that record requested to be amended, and (3) describe the nature of and reasons for each requested amendment.

**RECORD SOURCE CATEGORIES:**

Information is provided by the individual to whom the record pertains; an employee's physical or mental health care provider or counselor; the contractor administering the Drug-Free Workplace Plan or any other diagnostic laboratory; official records of other federal agencies; and Federal Reserve System personnel records.

**EXEMPTIONS CLAIMED FOR THE SYSTEM:**

None.

## BGFRS–4

**SYSTEM NAME:**

FRB—General Personnel Records.

**SYSTEM LOCATION:**

Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

**CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:**

Past and present employees of the Board, and the surviving spouses and children of former Board employees.

**CATEGORIES OF RECORDS IN THE SYSTEM:**

Information relating to employment determinations; salary and job classification actions; leave; placement; personnel actions; academic assistance; training and development activities; PMP ratings (but not the actual PMP form); minority group and medical disability designators; records relating to benefits and designation of beneficiary; emergency contact information; address and name changes; information concerning awards; and other information relating to the status of the individual while employed by the Board, including records of jury duty by the employee. All categories of records may include identifying information, such as name, date of birth, home address, mailing address, Social Security number, and personal telephone numbers.

**AUTHORITY FOR MAINTENANCE OF THE SYSTEM:**

Sections 10 and 11 of the Federal Reserve Act (12 U.S.C. 244 and 248), and Executive Order 9397.

**PURPOSE(S):**

These records are collected and maintained to assist the Board in its personnel actions and decisions, and in the administration of its benefits programs.

**ROUTINE USES OF RECORDS MAINTAINED IN THE SYSTEM, INCLUDING CATEGORIES OF USERS AND THE PURPOSES OF SUCH USES:**

General routine uses A, B, C, D, E, F, G, H, and I apply to this system. Records may also be used:

1. To disclose information to government training facilities (federal, state, and local) and to nongovernment training facilities (private vendors of training courses or programs, private schools, etc.) for training purposes;

2. To disclose information to educational institutions on appointment of a recent graduate to a position at the Board, and to provide college and university officials with information about their students who are working in internships or other similar programs necessary to a student's obtaining credit for the experience gained;

3. To disclose information to the Department of Labor, Department of Veterans Affairs, Social Security Administration, Department of Defense, a Federal Reserve Bank, or any federal agencies that have special civilian employee retirement programs; or to a national, state, county, municipal, or other publicly recognized charitable or income security administration agency (e.g., state unemployment-compensation agencies), when necessary to adjudicate a claim under the retirement, insurance, unemployment, or health benefits programs of the Board, a Federal Reserve Bank, or any agency cited above, or to an agency to conduct an analytical study or audit of benefits being paid under such programs;

4. To disclose to the Office of Personnel Management's Federal Employees Group Life Insurance Program or any contractor, information necessary to verify election, declination, or waiver of regular and/or optional life insurance coverage, eligibility for payment of a claim for life insurance, or a Thrift Savings Program (TSP) election change and designation of beneficiary;

5. To disclose to an employee, agent, contractor, or administrator of any Board, Federal Reserve System, or federal government employee benefit or savings plan, any information necessary to carry out any function authorized under such plan, or to carry out the coordination or audit of a benefit or savings plan;

6. To disclose information to any source from which additional information is requested (to the extent necessary to identify the individual, inform the source of the purpose(s) of the request, and to identify the type of information requested), when necessary to obtain information relevant to a Board decision to hire or retain an employee, issue a security clearance, conduct a security or suitability investigation of an individual, classify jobs, let a contract, or issue a license, grant, or other benefits;

7. To disclose information to the executor of an individual's estate, the government entity probating a will, a designated beneficiary, or to any person who is responsible for the care of an individual to the extent necessary when the individual to whom a record pertains is deceased, mentally incompetent, or under other legal disability, and to disclose information to an individual's emergency contact, or, if the emergency contact is unavailable, to any person who the Board believes is assisting the individual, when necessary to assist that individual in obtaining any employment benefit or any working condition, such as an accommodation under the Rehabilitation Act of 1973;

8. To disclose information to a federal, state, or local agency to the extent necessary to comply with laws governing reporting of communicable diseases or when it is reasonably believed that an individual might have contracted an illness or been exposed to or suffered from a health hazard while employed in the federal work force;

9. To disclose to prospective nonfederal employers the following information about a specifically identified current or former Board employee: (1) Tenure of employment; (2) civil service status; (3) length of service at the Board and in the government; and (4) when separated, the date and nature of action as shown on the job action;

10. To disclose information to a federal, state or local governmental entity or agency (or its agent) when necessary to locate individuals who are owed money or property either by a federal, state, or local agency, or by a financial or similar institution;

11. To disclose to a spouse or dependent child (or court-appointed guardian thereof) of a Board employee enrolled in the Federal Employees Health Benefits Program when the employee has changed from a self-and-family to a self-only health benefits enrollment and to disclose to a spouse information regarding the employee's pension and Thrift plan;

12. To verify for an entity preparing to make a loan to an employee the individual's employment status and salary;

13. To disclose information to officials of labor organizations recognized under applicable law, regulation, or policy when relevant and necessary to their duties of exclusive representation concerning personnel policies, practices, and matters affecting working conditions;

14. To disclose information to officials of foreign governments for clearance before a Board employee is assigned to that country;

15. To disclose information to a federal, state, or local agency for determination of an individual's entitlement to benefits in connection with Federal Housing Administration programs or other federal programs;

16. To consider and select employees for incentive awards and other honors and to publicize those granted (this may include disclosure to other public and private organizations, including news media, which grant or publicize employee awards);

17. To disclose specific Board or civil service employment information required under law by the Department of Defense on individuals identified as members of the Ready Reserve to ensure continuous mobilization readiness of Ready Reserve units and members, and to identify demographic characteristics of Board or civil service retirees for national emergency mobilization purposes;

18. To disclose relevant information with personal identifiers of Board employees to authorized federal agencies and nonfederal entities for use in computer matching. The matches will be performed to help eliminate waste, fraud, and abuse in governmental programs; to help identify individuals who are potentially in violation of civil or criminal law or regulation; and to collect debts and overpayments owed to federal, state, or local governments and their components. The information disclosed may include, but is not limited to, the name, Social Security number, date of birth, gender, annualized salary rate, service computation date of basic active service, veteran's preference, retirement status, occupational services, health plan code, position occupied, work schedule (full time, part time, or intermittent), duty station location, standard metropolitan statistical area, special program identifier, and submitting office number of Board employees; and

19. To disclose information to the Office of Child Support Enforcement, Administration for Children and Families, Department of Health and Human Services, Federal Parent Locator System and Federal Offset System for use in locating individuals, verifying Social Security numbers, and identifying their incomes sources to establish paternity, establish and modify orders of support for enforcement action.

**POLICIES AND PRACTICES FOR STORING, RETRIEVING, ACCESSING, RETAINING, AND DISPOSING OF RECORDS IN THE SYSTEM:**

*Storage.* Records are stored in paper and electronic form. Electronic records are stored in the Federal Reserve

Integrated Records Management Architecture (FIRMA).

*Retrievability.* Records can be retrieved by name or employee identification number.

*Access Controls.* Access to records is limited to those whose official duties require it. Paper records are secured by lock and key and electronic records are password protected.

*Retention and disposal.* All records are retained for the appropriate period which ranges from when superseded or obsolete to sixty-five years after separation from Federal service.

**SYSTEM MANAGER AND ADDRESS:**

Associate Director, Human Resources, Management Division, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

**NOTIFICATION PROCEDURES:**

An individual desiring to learn of the existence of, or to gain access to, his or her record in this system of records shall submit a request in writing to the Secretary of the Board, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551. The request should contain: (1) A statement that it is made pursuant to the Privacy Act of 1974, (2) the name of the system of records expected to contain the record requested or a concise description of such system of records, (3) necessary information to verify the identity of the requester, and (4) any other information that may assist in the rapid identification of the record for which access is being requested.

**RECORD ACCESS PROCEDURES:**

Same as ''Notification procedures'' above.

**CONTESTING RECORD PROCEDURES:**

Same as ''Notification procedures'' above except that the envelope should be clearly marked ''Privacy Act Amendment Request.'' The request for amendment of a record should: (1) Identify the system of records containing the record for which amendment is requested, (2) specify the portion of that record requested to be amended, and (3) describe the nature of and reasons for each requested amendment.

**RECORD SOURCE CATEGORIES:**

Information is provided by the individual to whom it applies (or is derived from the information the individual supplied); Board officials; the OPM Personnel Management Records System; personnel records of other government agencies; personnel records of Federal Reserve Banks; and official transcripts from schools when authorized by the employee.

**EXEMPTIONS CLAIMED FOR THE SYSTEM:**

Certain portions of this system of records may be exempt from 5 U.S.C. 552a(c)(3), (d), (e)(1), (e)(4)(G), (H), and (I), and (f) of the Privacy Act pursuant to 5 U.S.C. 552a(k)(2) and (k)(5).

## BGFRS–5

**SYSTEM NAME:**

FRB—EEO Discrimination Complaint File.

**SYSTEM LOCATION:**

Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

**CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:**

Applicants for Board employment, and past and present Board employees who have filed a complaint of discrimination or appealed a determination made by an official of the Board relating to equal employment opportunities.

**CATEGORIES OF RECORDS IN THE SYSTEM:**

Documents relating to a complaint, the decision or determination made by the Board affecting an individual under the Board's EEO regulations and procedures. The records consist of the initial complaint or appeal letters or notices to the individual, record of hearings when conducted, materials placed into the record to support the decision or determination, affidavits or statements, testimonies of witnesses, investigative reports, instructions to the Board and/or individual about action to be taken to comply with decisions, and related correspondence, opinions and recommendations.

**AUTHORITY FOR MAINTENANCE OF THE SYSTEM:**

Sections 10 and 11 of the Federal Reserve Act (12 U.S.C. 244 and 248).

**PURPOSE(S):**

These records are collected and maintained to assist the Board in carrying out its responsibilities under the Rehabilitation Act of 1973, Title VII of the Civil Rights Act, and other nondiscrimination statutes.

**ROUTINE USES OF RECORDS MAINTAINED IN THE SYSTEM, INCLUDING CATEGORIES OF USERS AND THE PURPOSES OF SUCH USES:**

General routine uses A, B, C, D, F, G, and I apply to this system. Records may also be used to disclose information to management as a data source for production of summary descriptive statistics and analytical studies in support of the function for which the records are collected and maintained, or for related personnel management functions or manpower studies and may also be utilized to respond to investigative or legal requests for statistical information (without personal identification of individuals).

**POLICIES AND PRACTICES FOR STORING, RETRIEVING, ACCESSING, RETAINING, AND DISPOSING OF RECORDS IN THE SYSTEM:**

*Storage.* Records are stored in paper form.

*Retrievability.* Records can be retrieved by the individual's name.

*Access Controls.* Access to records is limited to those whose official duties require it. Records are secured by lock and key.

*Retention and disposal.* All records are retained for four years after resolution of the case.

**SYSTEM MANAGER AND ADDRESS:**

EEO Programs Director, Office of the Staff Director for Management, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

**NOTIFICATION PROCEDURES:**

An individual desiring to learn of the existence of, or to gain access to, his or her record in this system of records shall submit a request in writing to the Secretary of the Board, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551. The request should contain: (1) A statement that it is made pursuant to the Privacy Act of 1974, (2) the name of the system of records expected to contain the record requested or a concise description of such system of records, (3) necessary information to verify the identity of the requester, and (4) any other information that may assist in the rapid identification of the record for which access is being requested.

**RECORD ACCESS PROCEDURES:**

Same as ''Notification procedures'' above.

**CONTESTING RECORD PROCEDURES:**

Same as ''Notification procedures'' above except that the envelope should be clearly marked ''Privacy Act Amendment Request.'' The request for amendment of a record should: (1) Identify the system of records containing the record for which amendment is requested, (2) specify the portion of that record requested to be amended, and (3) describe the nature of and reasons for each requested amendment.

**RECORD SOURCE CATEGORIES:**

Information is provided by the individual to whom the record pertains, Board employees, testimonies of witnesses, official documents relating to the appeal, grievance, or complaints, and correspondence from organizations or persons.

**EXEMPTIONS CLAIMED FOR THE SYSTEM:**

Certain portions of this system of records may be exempt from 5 U.S.C. 552a(c)(3), (d), (e)(1), (e)(4)(G), (H), and (I), and (f) of the Privacy Act pursuant to 5 U.S.C. 552a(k)(2).

## BGFRS–6

**SYSTEM NAME:**

FRB—Disciplinary and Adverse Action Records.

**SYSTEM LOCATION:**

Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

**CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:**

Past and present Board employees (including special employees) who were or are involved in a disciplinary or adverse action.

**CATEGORIES OF RECORDS IN THE SYSTEM:**

This system contains records and documents on the processing of adverse actions and disciplinary actions. The following categories of records are maintained in this system: Copies of the notice of proposed action, materials relied on by the Board to support the reasons in the notice, replies by the employee, statements of witnesses, hearing notices, record of hearings, reports, appeals and related documents, Board decisions, and records related to the Personnel Placement Program.

**AUTHORITY FOR MAINTENANCE OF THE SYSTEM:**

Sections 10 and 11 of the Federal Reserve Act (12 U.S.C. 244 and 248).

**PURPOSE(S):**

These records are collected and maintained to assist the Board in administering its personnel functions, and to maintain a record of proceedings in a disciplinary or adverse action.

**ROUTINE USES OF RECORDS MAINTAINED IN THE SYSTEM, INCLUDING CATEGORIES OF USERS AND THE PURPOSES OF SUCH USES:**

General routine uses A, B, C, D, E, F, G, H, and I apply to this system. Records may also be used:

1. To disclose information to any source from which additional information is requested (to the extent necessary to identify the individual, inform the source of the purpose(s) of the request, and identify the type of information requested), when necessary to obtain information relevant to a Board decision to hire or retain an employee, issue a security clearance, conduct a security or suitability investigation of an individual, classify jobs, let a contract, or issue a license, grant, or other benefit;

2. In producing summary descriptive statistics and analytical studies to support the function for which the records are collected and maintained, or for related work force studies (While published statistics and studies do not contain individual identifiers, in some instances the selection of elements of data included in the study may be structured in such a way as to make the data individually identifiable by inference.);

3. To provide an official of another federal agency information he or she needs to know in the performance of his or her official duties or reconciling or reconstructing data files, in support of the functions for which the records were collected and maintained; and

4. To disclose information to the Department of Labor, Department of Veterans Administration, Social Security Administration, Department of Defense, a Federal Reserve Bank, or any other federal agencies that have special civilian employee retirement programs; or to a national, state, county, municipal, or other publicly recognized charitable or income security, administration agency (e.g., state unemployment compensations agencies), when necessary to adjudicate a claim under the retirement, insurance, unemployment, or health benefits programs of the Board, a Federal Reserve Bank, or any agency cited above, or to an agency to conduct an analytical study or audit of benefits being paid under such programs.

**POLICIES AND PRACTICES FOR STORING, RETRIEVING, ACCESSING, RETAINING, AND DISPOSING OF RECORDS IN THE SYSTEM:**

*Storage.* Records are stored in paper and electronic form.

*Retrievability.* Records can be retrieved by the names of the individuals on whom they are maintained.

*Safeguards.* Access to records is limited to those whose official duties require it. Paper records are secured by lock and key and electronic records are password protected.

*Retention and disposal.* Records are maintained for seven years after the case is closed.

**SYSTEM MANAGER(S) AND ADDRESS:**

Manager, Staffing, ER and Clearances, Management Division, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

**NOTIFICATION PROCEDURES:**

An individual desiring to learn of the existence of, or to gain access to, his or her record in this system of records shall submit a request in writing to the Secretary of the Board, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551. The request should contain: (1) A statement that it is made pursuant to the Privacy Act of 1974, (2) the name of the system of records expected to contain the record requested or a concise description of such system of records, (3) necessary information to verify the identity of the requester, and (4) any other information that may assist in the rapid identification of the record for which access is being requested.

**RECORD ACCESS PROCEDURES:**

Same as ''Notification procedures'' above.

**CONTESTING RECORD PROCEDURES:**

Same as ''Notification procedures'' above except that the envelope should be clearly marked ''Privacy Act Amendment Request.'' The request for amendment of a record should: (1) Identify the system of records containing the record for which amendment is requested, (2) specify the portion of that record requested to be amended, and (3) describe the nature of and reasons for each requested amendment.

**RECORD SOURCE CATEGORIES:**

Information is provided by the individual to whom the record pertains; Board officials; affidavits or statements from employees; testimonies of witnesses; official documents relating to an action, appeal, grievance, or complaint; and correspondence from specific organizations or persons.

**EXEMPTIONS CLAIMED FOR THE SYSTEM:**

None.

## BGFRS–7

**SYSTEM NAME:**

FRB—Payroll and Leave Records.

**SYSTEM LOCATION:**

Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

**CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:**

Past and present employees and members of the Board.

**CATEGORIES OF RECORDS IN THE SYSTEM:**

Payroll records, including pay statements; requests for deductions; tax and Social Security withholdings; Board retirement deductions; any voluntary withholdings; tax forms; W–2 forms; overtime requests; leave data; worker's compensation data; leave records, including compensatory time, and codes indicating reasons for taking leave, such as family illness, or military leave.

**AUTHORITY FOR MAINTENANCE OF THE SYSTEM:**

Sections 10 and 11 of the Federal Reserve Act (12 U.S.C. 244 and 248), and Executive Order 9397.

**PURPOSE(S):**

These records are collected and maintained by the Board for payroll, attendance, leave, insurance, tax, retirement, budget, and cost-accounting programs, and to facilitate compliance with statutory requirements.

**ROUTINE USES OF RECORDS MAINTAINED IN THE SYSTEM, INCLUDING CATEGORIES OF USERS AND THE PURPOSES OF SUCH USES:**

General routine uses A, B, C, D, E, F, G, H, and I apply to this system. Records may also be used:

1. To disclose information to the Office of Child Support Enforcement of the United States Department of Health and Human Services, for use in locating individuals, verifying Social Security Numbers, and identifying their income sources to establish paternity, establishing and modifying orders of child support, identifying sources of income, and for other child support enforcement actions;

2. To disclose information appropriate federal and state agencies to provide required reports including data on unemployment insurance;

3. To disclose information to the Social Security Administration to report FICA deductions;

4. To disclose information to charitable institutions to report contributions;

5. To disclose information to the Internal Revenue Service and to state, local, tribal, and territorial governments for tax purposes;

6. To disclose information to the Office of Personnel Management in connection with programs administered by that office;

7. To disclose information to an employee, agent, contractor, or administrator of any Board, Federal Reserve System, or federal government employee benefit or savings plan, any information necessary to carry out any function authorized under such plan, or to carry out the coordination or audit of such plan;

8. To disclose information to officials of labor organizations recognized under applicable law, regulation, or policy when relevant and necessary to their duties of exclusive representation concerning personnel policies, practices, and matters affecting working conditions;

9. To disclose information to a federal agency for the purpose of collecting a debt owed the federal government through administrative or salary offset or the offset of tax refunds;

10. To disclose relevant information to other federal agencies conducting computer matching programs to eliminate fraud and abuse and to detect unauthorized overpayments made to individuals; and

11. To disclose information to verify for an entity preparing to make a mortgage or other loan to an employee the individual's employment status and salary, at the request of the individual.

**POLICIES AND PRACTICES FOR STORING, RETRIEVING, ACCESSING, RETAINING, AND DISPOSING OF RECORDS IN THE SYSTEM:**

*Storage.* Records are stored in paper form and electronic form.

*Retrievability.* Records can be retrieved by name, social security number, or employee identification number.

*Access Controls.* Access to records is limited to those whose official duties require it. Paper records are secured by lock and key and electronic records are password protected.

*Retention and disposal.* All records are retained for the appropriate period which ranges from one year from the date of annual audit or when six years old (whichever is sooner) to sixty-five years after separation or transfer of the employee.

**SYSTEM MANAGER AND ADDRESS:**

Manager, Payroll, Compensation and Benefits, Management Division, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

**NOTIFICATION PROCEDURES:**

An individual desiring to learn of the existence of, or to gain access to, his or her record in this system of records shall submit a request in writing to the Secretary of the Board, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551. The request should contain: (1) A statement that it is made pursuant to the Privacy Act of 1974, (2) the name of the system of records expected to contain the record requested or a concise description of such system of records, (3) necessary information to verify the identity of the requester, and (4) any other information that may assist in the rapid identification of the record for which access is being requested.

**RECORD ACCESS PROCEDURES:**

Same as ''Notification procedures'' above.

**CONTESTING RECORD PROCEDURES:**

Same as ''Notification procedures'' above except that the envelope should be clearly marked ''Privacy Act Amendment Request.'' The request for amendment of a record should: (1) Identify the system of records containing the record for which amendment is requested, (2) specify the portion of that record requested to be amended, and (3) describe the nature of and reasons for each requested amendment.

**RECORD SOURCE CATEGORIES:**

Information is provided by the individual or his or her supervisor on internal personnel forms, federal, state, and local tax forms, employee authorizations and directive forms, insurance forms, leave and overtime reports, and federal and state garnishment forms.

**EXEMPTIONS CLAIMED FOR THE SYSTEM:**

None.

## BGFRS–8

**SYSTEM NAME:**

FRB—Travel Records.

**SYSTEM LOCATION:**

Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

Some information, including travel and lodging reservations by employees and individuals who are provided travel by the Board, is collected and maintained, on behalf of the Board, by SatoTravel Services at 4601 N. Fairfax Drive, Suite 170, Arlington, VA 22203.

**CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:**

Past and present Board employees, and authorized individuals who are provided travel by the Board.

**CATEGORIES OF RECORDS IN THE SYSTEM:**

Travel Authorization forms and supporting documentation; Travel Expense Statements and supporting documentation; applications for the government travel card; periodic reports

from the card issuer regarding use of the government travel cards; records regarding Board reimbursement of travel expenses; and records regarding reservations for transportation and lodging sent to the Board's Travel Office. Records maintained by the government travel card issuer are covered by the government-wide system of records, Travel Charge Card Program (GSA/GOVT–3).

**AUTHORITY FOR MAINTENANCE OF THE SYSTEM:**

Sections 10 and 11 of the Federal Reserve Act (12 U.S.C. 244 and 248), and Executive Order 9397.

**PURPOSE(S):**

These records are collected and maintained to provide a travel management process that covers official travel for the Board and provides for tracking and appropriate reimbursement of expenses incurred in such travel.

**ROUTINE USES OF RECORDS MAINTAINED IN THE SYSTEM, INCLUDING CATEGORIES OF USERS AND THE PURPOSES OF SUCH USES:**

General routine uses A, B, C, D, F, G, H, and I apply to this system. Records may also be used:

1. To disclose information to a Federal agency for accumulating reporting data and monitoring travel management centers;
2. To disclose information in the form of listings, reports, and records of all common carrier transactions including refunds and adjustments to an agency by the contractor to enable audits of carrier charges to the Federal government; and
3. To disclose information to consumer reporting agencies as defined in the Fair Credit Reporting Act (15 U.S.C. 1681a(f)) regarding the use of the government travel card.

**POLICIES AND PRACTICES FOR STORING, RETRIEVING, ACCESSING, RETAINING, AND DISPOSING OF RECORDS IN THE SYSTEM:**

*Storage.* Records are stored in both paper and electronic form.

*Retrievabililty.* Paper records can be retrieved by the traveler's name. Electronic records can be retrieved by name, employee identification number, social security number, travel card account number, or trip number.

*Access Controls.* Access to records is limited to those whose official duties require it. Paper records are secured by lock and key and electronic records are password protected. Paper records more than two years old are stored at an offsite facility.

*Retention and disposal.* All records are retained for six years after the period of the account except that in certain instances (generally involving deductions or overcharges), the records are retained for ten years.

**SYSTEM MANAGER AND ADDRESS:**

Manager, Special Projects and Travel, Management Division, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

**NOTIFICATION PROCEDURES:**

An individual desiring to learn of the existence of, or to gain access to, his or her record in this system of records shall submit a request in writing to the Secretary of the Board, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551. The request should contain: (1) A statement that it is made pursuant to the Privacy Act of 1974, (2) the name of the system of records expected to contain the record requested or a concise description of such system of records, (3) necessary information to verify the identity of the requester, and (4) any other information that may assist in the rapid identification of the record for which access is being requested.

**RECORD ACCESS PROCEDURES:**

Same as ''Notification procedures'' above.

**CONTESTING RECORD PROCEDURES:**

Same as ''Notification procedures'' above except that the envelope should be clearly marked ''Privacy Act Amendment Request.'' The request for amendment of a record should: (1) Identify the system of records containing the record for which amendment is requested, (2) specify the portion of that record requested to be amended, and (3) describe the nature of and reasons for each requested amendment.

**RECORD SOURCE CATEGORIES:**

Information is provided by the individual to whom the record pertains, from Travel Authorizations, reports from the government travel card contractor, from the automated financial system of the Management Division regarding reimbursement, and from the travel agency regarding reservations.

**EXEMPTIONS CLAIMED FOR THE SYSTEM:**

None.

## BGFRS–9

**SYSTEM NAME:**

FRB—Supplier Files.

**SYSTEM LOCATION:**

Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

**CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:**

Individuals who supply contracted services to the Board, and speakers, applicants or other official visitors to whom the Board must provide reimbursement for fees, travel or other expenses (collectively referred to as ''suppliers'').

**CATEGORIES OF RECORDS IN THE SYSTEM:**

Supplier Information Form, W–9 Tax Identification Document, and any other information pertaining to the supplier's status. The Supplier Information Form contains the following information: individual's name, social security number or taxpayer identification number, address, telephone/fax numbers, email address, contact name/telephone number, supplier classification (such as vendor, speaker, or applicant), and EFT bank information.

**AUTHORITY FOR MAINTENANCE OF THE SYSTEM:**

Sections 10 and 11 of the Federal Reserve Act (12 U.S.C. 244 and 248), and Executive Order 9397.

**PURPOSE(S):**

These records are collected and maintained to assist the Board in tracking and paying suppliers and completing reports for the Internal Revenue Service.

**ROUTINE USES OF RECORDS MAINTAINED IN THE SYSTEM, INCLUDING CATEGORIES OF USERS AND THE PURPOSES OF SUCH USES:**

General routine uses A, C, D, G, and I, apply to this system. Records may also be used to disclose information to the Internal Revenue Service to report payments that may be considered income to the suppliers.

**POLICIES AND PRACTICES FOR STORING, RETRIEVING, ACCESSING, RETAINING, AND DISPOSING OF RECORDS IN THE SYSTEM:**

*Storage.* Records are stored in paper and electronic form. Some electronic records created prior to October 2003 are stored in the Federal Reserve Integrated Records Management Architecture (FIRMA).

*Retrievability.* Paper records can be retrieved by a supplier's name. Electronic records can be retrieved by name, social security number, taxpayer identification number, or purchase order number.

*Access Controls.* Access to records is limited to those whose official duties require it. Paper records are secured by lock and key and electronic records are password protected.

*Retention and disposal.* All records relating to contracts that exceed the simplified acquisition threshold and all construction contracts exceeding $2,000 are retained for six years and three months after final payment and all other records are retained for three years after final payment.

**SYSTEM MANAGER AND ADDRESS:**

Assistant Director, Technology Support, Management Division, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

**NOTIFICATION PROCEDURES:**

An individual desiring to learn of the existence of, or to gain access to, his or her record in this system of records shall submit a request in writing to the Secretary of the Board, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551. The request should contain: (1) A statement that it is made pursuant to the Privacy Act of 1974, (2) the name of the system of records expected to contain the record requested or a concise description of such system of records, (3) necessary information to verify the identity of the requester, and (4) any other information that may assist in the rapid identification of the record for which access is being requested.

**RECORD ACCESS PROCEDURES:**

Same as ''Notification procedures'' above.

**CONTESTING RECORD PROCEDURES:**

Same as ''Notification procedures'' above except that the envelope should be clearly marked ''Privacy Act Amendment Request.'' The request for amendment of a record should: (1) Identify the system of records containing the record for which amendment is requested, (2) specify the portion of that record requested to be amended, and (3) describe the nature of and reasons for each requested amendment.

**RECORD SOURCE CATEGORIES:**

Information is provided by the individual on whom the record pertains, information from Travel Authorizations and Travel Expense Statements, and information from contract documents.

**EXEMPTIONS CLAIMED FOR THE SYSTEM:**

None.

## BGFRS–10

**SYSTEM NAME:**

FRB—General Files on Board Members.

**SYSTEM LOCATION:**

Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

**CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:**

Past and present members of the Board.

**CATEGORIES OF RECORDS IN THE SYSTEM:**

Biographies of past and present members of the Board, oaths of office, and miscellaneous correspondence relating to such members.

**AUTHORITY FOR MAINTENANCE OF THE SYSTEM:**

Sections 10 and 11 of the Federal Reserve Act (12 U.S.C. 244 and 248).

**PURPOSE(S):**

These records are collected and maintained to confirm the composition of the Board, length of term, appointments, succession, and biographical details.

**ROUTINE USES OF RECORDS MAINTAINED IN THE SYSTEM, INCLUDING CATEGORIES OF USERS AND THE PURPOSES OF SUCH USES:**

General routine uses A, C, D, G, and I apply to this system. Records may also be used for background information to determine qualifications for appointment and reappointment, for compiling information for news releases and other publications, and for recording correspondence concerning the governors.

**POLICIES AND PRACTICES FOR STORING, RETRIEVING, ACCESSING, RETAINING, AND DISPOSING OF RECORDS IN THE SYSTEM:**

*Storage.* Records are stored in paper and electronic form. Electronic records are stored in the Federal Reserve Integrated Records Management Architecture (FIRMA).

*Retrievability.* Records can be retrieved by name.

*Access Controls.* Access to records is limited to those whose official duties require it. Paper records are secured by lock and key and electronic records are password protected.

*Retention and disposal.* All records are permanent.

**SYSTEM MANAGER AND ADDRESS:**

Secretary of the Board, Office of the Secretary, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

**NOTIFICATION PROCEDURES:**

An individual desiring to learn of the existence of, or to gain access to, his or her record in this system of records shall submit a request in writing to the Secretary of the Board, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551. The request should contain: (1) A statement that it is made pursuant to the Privacy Act of 1974, (2) the name of the system of records expected to contain the record requested or a concise description of such system of records, (3) necessary information to verify the identity of the requester, and (4) any other information that may assist in the rapid identification of the record for which access is being requested.

**RECORD ACCESS PROCEDURES:**

Same as ''Notification procedures'' above.

**CONTESTING RECORD PROCEDURES:**

Same as ''Notification procedures'' above except that the envelope should be clearly marked ''Privacy Act Amendment Request.'' The request for amendment of a record should: (1) Identify the system of records containing the record for which amendment is requested, (2) specify the portion of that record requested to be amended, and (3) describe the nature of and reasons for each requested amendment.

**RECORD SOURCE CATEGORIES:**

The information is provided by individual to whom the record pertains, his or her incoming correspondence, and staff response thereto.

**EXEMPTIONS CLAIMED FOR THE SYSTEM:**

Certain portions of this system of records may be exempted from 5 U.S.C. 552a(c)(3), (d), (e)(1), (e)(4)(G), (H), and (I), and (f) of the Privacy Act pursuant to 5 U.S.C. 552a(k)(5).

## BGFRS–11

**SYSTEM NAME:**

FRB—Official General Files.

**SYSTEM LOCATION:**

Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

**CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:**

Correspondents with the Board and System personnel.

**CATEGORIES OF RECORDS IN THE SYSTEM:**

Incoming and outgoing correspondence concerning Board business, including records relating to System personnel in official capacities such as instructors, consultants, and Board representatives to various committees, conferences, etc.

**AUTHORITY FOR MAINTENANCE OF THE SYSTEM:**

Sections 10 and 11 of the Federal Reserve Act (12 U.S.C. 244 and 248).

**PURPOSE(S):**

These records are collected and maintained to document important transactions between Board members, officials, and staff and with the White House, Congress, other federal agencies, foreign financial institutions, professional groups, and the public.

**ROUTINE USES OF RECORDS MAINTAINED IN THE SYSTEM, INCLUDING CATEGORIES OF USERS AND THE PURPOSES OF SUCH USES:**

General routine uses A, C, D, G, and I apply to this system. Records may also be used for reference purposes in preparing responses to inquiries from the public and used in recording official duties of System personnel.

**POLICIES AND PRACTICES FOR STORING, RETRIEVING, ACCESSING, RETAINING, AND DISPOSING OF RECORDS IN THE SYSTEM:**

*Storage.* Records are stored in paper and electronic form. Electronic records are stored in the Federal Reserve Integrated Records Management Architecture (FIRMA).

*Retrievability.* Records can be retrieved by name.

*Access Controls.* Access to records is limited to those whose official duties require it. Paper records are secured by lock and key and electronic records are password protected.

*Retention and disposal.* All records are retained for the appropriate period ranging from three years to permanently.

**SYSTEM MANAGER AND ADDRESS:**

Secretary of the Board, Office of the Secretary, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

**NOTIFICATION PROCEDURES:**

An individual desiring to learn of the existence of, or to gain access to, his or her record in this system of records shall submit a request in writing to the Secretary of the Board, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551. The request should contain: (1) A statement that it is made pursuant to the Privacy Act of 1974, (2) the name of the system of records expected to contain the record requested or a concise description of such system of records, (3) necessary information to verify the identity of the requester, and (4) any other information that may assist in the rapid identification of the record for which access is being requested.

**RECORD ACCESS PROCEDURES:**

Same as ''Notification procedures'' above.

**CONTESTING RECORD PROCEDURES:**

Same as ''Notification procedures'' above except that the envelope should be clearly marked ''Privacy Act Amendment Request.'' The request for amendment of a record should: (1) Identify the system of records containing the record for which amendment is requested, (2) specify the portion of that record requested to be amended, and (3) describe the nature of and reasons for each requested amendment.

**RECORD SOURCE CATEGORIES:**

Information is provided by the individual to whom the record pertains, his or her incoming correspondence, and staff response thereto.

**EXEMPTIONS CLAIMED FOR THE SYSTEM:**

Certain portions of this system of records may be exempted from 5 U.S.C. 552a(c)(3), (d), (e)(1), (e)(4)(G), (H), and (I), and (f) of the Privacy Act pursuant to 5 U.S.C. 552a(k)(5).

## BGFRS–12

**SYSTEM NAME:**

FRB—Bank Officers Personnel System.

**SYSTEM LOCATION:**

Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

**CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:**

Past and present Federal Reserve Bank officers.

**CATEGORIES OF RECORDS IN THE SYSTEM:**

Personnel information (including demographic, academic, professional, and employment information) on Reserve Bank officers, as well as personnel actions that have occurred during their employment with the Federal Reserve Banks, including the Federal Reserve Information Technology office and the Office of Employee Benefits.

**AUTHORITY FOR MAINTENANCE OF THE SYSTEM:**

Sections 4, 10, 11 and 21 of the Federal Reserve Act (12 U.S.C. 247, 248, 307, and 485).

**PURPOSE(S):**

These records are collected and maintained to assist the Board in its oversight role of the Federal Reserve Banks.

**ROUTINE USES OF RECORDS MAINTAINED IN THE SYSTEM, INCLUDING CATEGORIES OF USERS AND THE PURPOSES OF SUCH USES:**

General routine uses A, B C, D, F, G, H, and I apply to this system. Records may also be used to provide reports, such as the Board's Annual Report, to Congress, agencies, and the public on characteristics of the Federal Reserve Bank officer work force.

**POLICIES AND PRACTICES FOR STORING, RETRIEVING, ACCESSING, RETAINING, AND DISPOSING OF RECORDS IN THE SYSTEM:**

*Storage.* Records are stored in paper and electronic form.

*Retrievability.* Records can be retrieved by name or employee identification number.

*Access Controls.* Access is limited to those whose official duties require it. Paper records are secured by lock and key and electronic records are password protected.

*Retention and disposal.* All records are retained until no longer needed for administrative or reference purposes.

**SYSTEM MANAGER AND ADDRESS:**

Division Director, Reserve Bank Operations and Payment Systems, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

**NOTIFICATION PROCEDURES:**

An individual desiring to learn of the existence of, or to gain access to, his or her record in this system of records shall submit a request in writing to the Secretary of the Board, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551. The request should contain: (1) A statement that it is made pursuant to the Privacy Act of 1974, (2) the name of the system of records expected to contain the record requested or a concise description of such system of records, (3) necessary information to verify the identity of the requester, and (4) any other information that may assist in the rapid identification of the record for which access is being requested.

**RECORD ACCESS PROCEDURES:**

Same as ''Notification procedures'' above.

**CONTESTING RECORD PROCEDURES:**

Same as ''Notification procedures'' above except that the envelope should be clearly marked ''Privacy Act Amendment Request.'' The request for amendment of a record should: (1) Identify the system of records containing the record for which amendment is requested, (2) specify the portion of that record requested to be

amended, and (3) describe the nature of and reasons for each requested amendment.

**RECORD SOURCE CATEGORIES:**

Information is provided by the individual to whom the record pertains, Federal Reserve Bank staff, and personnel systems.

**EXEMPTIONS CLAIMED FOR THE SYSTEM:**

None.

## BGFRS–13

**SYSTEM NAME:**

FRB—Federal Reserve System Bank Supervision Staff Qualifications.

**SYSTEM LOCATION:**

Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

Some information is collected and maintained, on behalf of the Board, by the twelve Federal Reserve Banks.

**CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:**

Past and present bank supervision staff (including bank examiners) employed by the Federal Reserve System.

**CATEGORIES OF RECORDS IN THE SYSTEM:**

Information relating to the skills, qualifications, training, and experience of bank supervision staff, and information regarding past and present assignments and current availability of individual bank supervision staff employees.

**AUTHORITY FOR MAINTENANCE OF THE SYSTEM:**

Sections 10, 11, and 21 of the Federal Reserve Act (12 U.S.C. 244, 248, and 483).

**PURPOSE(S):**

These records are collected and maintained to assist the Board in performing its statutory duty to examine state member banks, bank holding companies, financial holding companies and affiliates of such institutions. The information is used to assist in career development of examiners and other bank supervision staff. The information also aids the Board and the Reserve Banks in selecting qualified bank supervision staff for particular assignments.

**ROUTINE USES OF RECORDS MAINTAINED IN THE SYSTEM, INCLUDING CATEGORIES OF USERS AND THE PURPOSES OF SUCH USES:**

General Routine uses A, B, C, D, E, F, G, H, and I apply to this system. Records may also be used to disclose information to Federal Reserve Banks in connection with work performed on behalf of the Board or training provided by the Federal Reserve System.

**POLICIES AND PRACTICES FOR STORING, RETRIEVING, ACCESSING, RETAINING, AND DISPOSING OF RECORDS IN THE SYSTEM:**

*Storage.* Records are stored in paper and electronic form.

*Retrievability.* Records can be retrieved by the name or a unique assigned identification number for the individual on whom they are maintained.

*Access Controls.* Access to records is limited to those whose official duties require it. Paper records are secured by lock and key and electronic records are password protected.

*Retention and disposal.* All records are made inactive when the employee leaves the Federal Reserve System and are retained for five years after the record becomes inactive.

**SYSTEM MANAGERS AND ADDRESS:**

Division Director, Banking Supervision and Regulation, and Division Director, Consumer and Community Affairs, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

**NOTIFICATION PROCEDURES:**

An individual desiring to learn of the existence of, or to gain access to, his or her record in this system of records shall submit a request in writing to the Secretary of the Board, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551. The request should contain: (1) A statement that it is made pursuant to the Privacy Act of 1974, (2) the name of the system of records expected to contain the record requested or a concise description of such system of records, (3) necessary information to verify the identity of the requester, and (4) any other information that may assist in the rapid identification of the record for which access is being requested.

**RECORD ACCESS PROCEDURES:**

Same as ''Notification procedures'' above.

**CONTESTING RECORD PROCEDURES:**

Same as ''Notification procedures'' above except that the envelope should be clearly marked ''Privacy Act Amendment Request.'' The request for amendment of a record should: (1) Identify the system of records containing the record for which amendment is requested, (2) specify the portion of that record requested to be amended, and (3) describe the nature of and reasons for each requested amendment.

**RECORD SOURCE CATEGORIES:**

Information is provided by the individual to whom the record pertains and personnel and training records regarding the individual that are maintained by the Board and Federal Reserve Banks.

**EXEMPTIONS CLAIMED FOR THE SYSTEM:**

Certain portions of this system of records may be exempt from 5 U.S.C. 552a(c)(3), (d), (e)(1), (e)(4)(G), (H), and (I), and (f) of the Privacy Act pursuant to 5 U.S.C. 552a(k)(5).

## BGFRS–14

**SYSTEM NAME:**

FRB—General File of Federal Reserve Bank and Branch Directors.

**SYSTEM LOCATION:**

Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

**CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:**

Past and present Federal Reserve Bank and Branch directors.

**CATEGORIES OF RECORDS IN THE SYSTEM:**

Biographies of past and present Federal Reserve Bank and Branch directors, oaths of office, resignations, and miscellaneous correspondence.

**AUTHORITY FOR MAINTENANCE OF THE SYSTEM:**

Sections 3, 4, 11 and 21 of the Federal Reserve Act (12 U.S.C. 248, 302, 485, and 521).

**PURPOSE(S):**

These records are collected and maintained to assist the Board in its oversight of the selection of Federal Reserve Bank and Branch Directors.

**ROUTINE USES OF RECORDS MAINTAINED IN THE SYSTEM, INCLUDING CATEGORIES OF USERS AND THE PURPOSES OF SUCH USES:**

General routine uses A, C, D, G, and I apply to this system. Records may be used as background information for determining qualifications for appointment and reappointment, for compiling information for news releases and other publications, and for recording correspondence concerning such persons.

**POLICIES AND PRACTICES FOR STORING, RETRIEVING, ACCESSING, RETAINING, AND DISPOSING OF RECORDS IN THE SYSTEM:**

*Storage.* Records are stored in paper and electronic form.

*Retrievability.* Records can be retrieved by name.

*Access Controls.* Access to records is limited to those whose official duties require it. Paper records are secured by lock and key and electronic records are password protected.

*Retention and disposal.* All records are retained for at least five years after the annual cutoff, and then destroyed or deleted when no longer needed for administrative or reference purposes.

**SYSTEM MANAGER AND ADDRESS:**

Secretary of the Board, Office of the Secretary, Board of Governors of Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

**NOTIFICATION PROCEDURES:**

An individual desiring to learn of the existence of, or to gain access to, his or her record in this system of records shall submit a request in writing to the Secretary of the Board, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551. The request should contain: (1) A statement that it is made pursuant to the Privacy Act of 1974, (2) the name of the system of records expected to contain the record requested or a concise description of such system of records, (3) necessary information to verify the identity of the requester, and (4) any other information that may assist in the rapid identification of the record for which access is being requested.

**RECORD ACCESS PROCEDURES:**

Same as ''Notification procedures'' above.

**CONTESTING RECORD PROCEDURES:**

Same as ''Notification procedures'' above except that the envelope should be clearly marked ''Privacy Act Amendment Request.'' The request for amendment of a record should: (1) Identify the system of records containing the record for which amendment is requested, (2) specify the portion of that record requested to be amended, and (3) describe the nature of and reasons for each requested amendment.

**RECORD SOURCE CATEGORIES:**

Information is provided by the individual to whom the record pertains, his or her incoming correspondence, and staff response thereto.

**EXEMPTIONS CLAIMED FOR THE SYSTEM:**

Certain portions of this system of records may be exempt from 5 U.S.C. 552a(c)(3), (d), (e)(1), (e)(4)(G), (H), and (I), and (f) of the Privacy Act pursuant to 5 U.S.C. 552a(k)(5).

## BGFRS–16

**SYSTEM NAME:**

FRB—Regulation U Reports of Nonbank Lenders.

**SYSTEM LOCATION:**

Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

**CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:**

Individuals (other than banks, brokers, and dealers) who extend credit in specified amounts secured by margin stock.

**CATEGORIES OF RECORDS IN THE SYSTEM:**

Responses to G–1, G–2, and G–4 Reports filed by persons registered pursuant to Regulation U, 12 CFR 221, including identifying information about the registrant such as name, address, securities credit, and balance sheet assets and liabilities.

**AUTHORITY FOR MAINTENANCE OF THE SYSTEM:**

Sections 3, 7, 17, and 23 of the Securities Exchange Act of 1934 (15 U.S.C. 78c, 78g, 78q, and 78w), and Regulation U (12 CFR 221).

**PURPOSE(S):**

These records are collected and maintained to assist the Board in maintaining a current list of persons registered as margin lenders under the securities laws.

**ROUTINE USES OF RECORDS MAINTAINED IN THE SYSTEM, INCLUDING CATEGORIES OF USERS AND THE PURPOSES OF SUCH USES:**

General routine uses A, C, D, G, and I apply to this system. Records may be used:

1. To disclose, upon request, the name of a registered individual who extends credit secured by margin stock; and

2. To disclose information, when appropriate, to foreign governmental authorities in accordance with law, and formal or informal international agreements.

**POLICIES AND PRACTICES FOR STORING, RETRIEVING, ACCESSING, RETAINING, AND DISPOSING OF RECORDS IN THE SYSTEM:**

*Storage.* Records are stored in paper and electronic form.

*Retrievability.* Records can be retrieved by the individual's name.

*Access Controls.* Access to records is limited to those whose official duties require it. Paper records are secured by lock and key and electronic records are password protected.

*Retention and disposal.* The electronic images of the G–1 and G–2 Reports are retained for fifteen years after approval of application, then destroyed when no longer needed for reference. The paper files are destroyed upon verification of the electronic image and/or when no longer needed for reference. The G–4 Reports are retained five years, then destroyed when no longer needed for administrative purposes. If the G–4 Reports are received in paper, but then entered into an electronic system at the Board, the paper record may be destroyed upon verification of the database.

**SYSTEM MANAGER AND ADDRESS:**

Division Director, Banking Supervision and Regulation, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

**NOTIFICATION PROCEDURES:**

An individual desiring to learn of the existence of, or to gain access to, his or her record in this system of records shall submit a request in writing to the Secretary of the Board, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551. The request should contain: (1) A statement that it is made pursuant to the Privacy Act of 1974, (2) the name of the system of records expected to contain the record requested or a concise description of such system of records, (3) necessary information to verify the identity of the requester, and (4) any other information that may assist in the rapid identification of the record for which access is being requested.

**RECORD ACCESS PROCEDURES:**

Same as ''Notification procedures'' above.

**CONTESTING RECORD PROCEDURES:**

Same as ''Notification procedures'' above except that the envelope should be clearly marked ''Privacy Act Amendment Request.'' The request for amendment of a record should: (1) Identify the system of records containing the record for which amendment is requested, (2) specify the portion of that record requested to be amended, and (3) describe the nature of and reasons for each requested amendment.

**RECORD SOURCE CATEGORIES:**

Information is provided by the individual to whom the record pertains.

**EXEMPTIONS CLAIMED FOR THE SYSTEM:**

None.

## BGFRS–17

### SYSTEM NAME:

FRB—Municipal or Government Securities Principals and Representatives.

### SYSTEM LOCATION:

Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

### CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:

Persons who are, or seek to be, municipal or government securities principals or municipal or government securities representatives associated with a municipal or government securities dealer that is a state member bank of the Federal Reserve System or a United States branch of a foreign bank, or a subsidiary or a department or division thereof.

### CATEGORIES OF RECORDS IN THE SYSTEM:

Identifying information; educational, employment, and disciplinary information; scores on professional qualification examinations; and, where applicable, information regarding termination of employment of individuals covered by the system. Identifying information includes name, address, date and place of birth, and may include Social Security number.

### AUTHORITY FOR MAINTENANCE OF THE SYSTEM:

Sections 3, 15B, 15C, 17, and 23 of the Securities Exchange Act of 1934 (15 U.S.C. 78c, 78o–4, 78o–5, 78q, and 78w), section 11 of the Federal Reserve Act (12 U.S.C. 248), and Executive Order 9397.

### PURPOSE(S):

These records are collected and maintained to permit the Board to perform its responsibilities under the securities laws with regard to the persons described in this system of records.

### ROUTINE USES OF RECORDS MAINTAINED IN THE SYSTEM, INCLUDING CATEGORIES OF USERS AND THE PURPOSES OF SUCH USES:

General routine uses A, C, D, E, G, and I apply to this system. Records may also be used to disclose information to a federal, state, local, or foreign governmental authority or a self-regulatory organization if necessary in order to obtain information relevant to a Federal Reserve Board inquiry concerning a person who is or seeks to be associated with a municipal or government securities dealer.

### POLICIES AND PRACTICES FOR STORING, RETRIEVING, ACCESSING, RETAINING, AND DISPOSING OF RECORDS IN THE SYSTEM:

*Storage.* Records are stored in paper and electronic form.

*Retrievability.* Records can be retrieved by the individual's name.

*Access Controls.* Access to records is limited to those whose official duties require it. Paper records are secured by lock and key and electronic records are password protected.

*Retention and disposal.* The retention period for these records is currently under review. Until the review is completed, these records will not be destroyed.

### SYSTEM MANAGER AND ADDRESS:

Division Director, Banking Supervision and Regulation, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

### NOTIFICATION PROCEDURES:

An individual desiring to learn of the existence of, or to gain access to, his or her record in this system of records shall submit a request in writing to the Secretary of the Board, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551. The request should contain: (1) A statement that it is made pursuant to the Privacy Act of 1974, (2) the name of the system of records expected to contain the record requested or a concise description of such system of records, (3) necessary information to verify the identity of the requester, and (4) any other information that may assist in the rapid identification of the record for which access is being requested.

### RECORD ACCESS PROCEDURES:

Same as ''Notification procedures'' above.

### CONTESTING RECORD PROCEDURES:

Same as ''Notification procedures'' above except that the envelope should be clearly marked ''Privacy Act Amendment Request.'' The request for amendment of a record should: (1) Identify the system of records containing the record for which amendment is requested, (2) specify the portion of that record requested to be amended, and (3) describe the nature of and reasons for each requested amendment.

### RECORD SOURCE CATEGORIES:

Information is provided by the individual to whom the record pertains as well as municipal or government securities dealers with whom the individuals are associated, and federal, state, local, and foreign governmental authorities, and self-regulatory organizations which regulate the securities industry.

### EXEMPTIONS CLAIMED FOR THE SYSTEM:

None.

## BGFRS–18

### SYSTEM NAME:

FRB—Consumer Complaint Information.

### SYSTEM LOCATION:

Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

Some information is collected and maintained, on behalf of the Board, by the twelve Federal Reserve Banks.

### CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:

Persons who have filed consumer complaints with the Federal Reserve Board or a Federal Reserve Bank, or whose complaint to another agency has been referred to the Federal Reserve Board for review.

### CATEGORIES OF RECORDS IN THE SYSTEM:

Complaints regarding state-chartered member banks, as well as other financial institutions, individuals, or organizations that are subject to federal banking supervision. The records may contain the name and address of an individual or organization that referred a matter to the Board. Information in these records includes the complainant's name; the name of the financial institution that is the subject of the complaint; the subject matter of the complaint; and the Board's response to the complaint. Supporting records include, but are not limited to, documents supplied by the complainant. If the complaint concerns an institution that is not subject to supervision by the Board, the record may consist of a referral letter to the appropriate supervisory agency.

### AUTHORITY FOR MAINTENANCE OF THE SYSTEM:

Section 11 of the Federal Reserve Act (12 U.S.C. 248); section 5 of the Bank Holding Company Act (12 U.S.C. 1844); and section 18(f) of the Federal Trade Commission Act (15 U.S.C. 57a(f)).

### PURPOSE(S):

These records are collected and maintained to permit the Board to perform its responsibilities under the Federal Reserve Act, the Federal Trade Commission Act, and other consumer protection laws to respond to consumer complaints and inquiries regarding

practices by banks and other financial institutions supervised by the Board.

**ROUTINE USES OF RECORDS MAINTAINED IN THE SYSTEM, INCLUDING CATEGORIES OF USERS AND THE PURPOSES OF SUCH USES:**

General routine uses A, B, C, D, G, and I apply to this system. Records may also be used:

1. To disclose information to a Board-regulated entity that is the subject of a complaint or inquiry; and

2. To disclose information to third parties to the extent necessary to obtain information that is relevant to the resolution of a complaint or inquiry.

**POLICIES AND PRACTICES FOR STORING, RETRIEVING, ACCESSING, RETAINING, AND DISPOSING OF RECORDS IN THE SYSTEM:**

*Storage.* Records are stored in paper and electronic form. Electronic records are stored in the Federal Reserve Integrated Records Management Architecture (FIRMA).

*Retrievability.* Records can be retrieved by consumer name, bank name, Reserve Bank name, or control number.

*Access Controls.* Access to records is limited to those whose official duties require it. Paper records are secured by lock and key and electronic records are password protected.

*Retention and disposal.* All records are retained for five years, then destroyed when no longer needed for administrative purposes.

**SYSTEM MANAGER AND ADDRESS:**

Division Director, Consumer and Community Affairs, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

**NOTIFICATION PROCEDURES:**

An individual desiring to learn of the existence of, or to gain access to, his or her record in this system of records shall submit a request in writing to the Secretary of the Board, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551. The request should contain: (1) A statement that it is made pursuant to the Privacy Act of 1974, (2) the name of the system of records expected to contain the record requested or a concise description of such system of records, (3) necessary information to verify the identity of the requester, and (4) any other information that may assist in the rapid identification of the record for which access is being requested.

**RECORD ACCESS PROCEDURES:**

Same as ''Notification procedures'' above.

**CONTESTING RECORD PROCEDURES:**

Same as ''Notification procedures'' above except that the envelope should be clearly marked ''Privacy Act Amendment Request.'' The request for amendment of a record should: (1) Identify the system of records containing the record for which amendment is requested, (2) specify the portion of that record requested to be amended, and (3) describe the nature of and reasons for each requested amendment.

**RECORD SOURCE CATEGORIES:**

Information is provided by the individual who initiates complaint (or his or her representative, which may include a member of Congress or an attorney); appropriate federal, state, or local regulatory and enforcement agencies; and institutions or individuals that are the subject of the complaint.

**EXEMPTIONS CLAIMED FOR THE SYSTEM:**

Certain portions of this system of records may be exempt from 5 U.S.C. 552a(c)(3), (d), (e)(1), (e)(4)(G), (H), and (I), and (f) of the Privacy Act pursuant to 5 U.S.C. 552a(k)(2).

## BGFRS–20

**SYSTEM NAME:**

FRB—Survey of Consumer Finances.

**SYSTEM LOCATION(S):**

Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

Information is also collected and maintained on behalf of the Board, by National Opinion Research Center at the University of Chicago (NORC) at 1155 East 60th Street, Chicago, IL 60637.

**CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:**

Voluntary response to the Board's periodic survey of U.S. households on the current state of households' finances (SCF).

**CATEGORIES OF RECORDS IN THE SYSTEM:**

NORC, the independent contractor for survey data collection, holds three types of files:

(a) Answers given by survey participants in the course of the administration of the survey questionnaire. No identifying information is included in this category.

(b) Answers given by interviewers to questions about the administration, or attempted administration, of the survey interview, and answers given by interviewers to questions about the area around the sample addresses. No identifying information is included in this category.

(c) A control file containing the name, address, other identifying or locating characteristics of members of the survey sample, and technical information describing survey participation.

The Board holds five types of files:

(a) All information included in (1)(a) and (1)(b).

(b) A control file containing general geographic characteristics and technical information describing survey participation. No identifying information is included in this category.

(c) For a part of the survey sample, information from statistical records derived from individual tax returns, including a Social Security number but containing no other identifying information.

(d) Files of information matched to the survey data by high-level characteristics, such as general location, occupation, banking market, etc. No identifying information is included in this category.

**AUTHORITY FOR MAINTENANCE OF THE SYSTEM:**

Section 2A of the Federal Reserve Act (12 U.S.C. 225a) and 15 U.S.C. 1601, note.

**PURPOSE(S):**

The records are collected and maintained for statistical purposes only in order to structure, conduct, and process the SCF. The SCF is a key part of the national statistical system and it provides a basis for a wide variety of government, academic, and other statistical research.

**ROUTINE USES OF RECORDS MAINTAINED IN THE SYSTEM, INCLUDING CATEGORIES OF USERS AND THE PURPOSE OF SUCH USES:**

Data collected as a part of the SCF are protected under the Confidential Information Protection and Statistical Efficiency Act (CIPSEA). To the extent that disclosure is permitted under CIPSEA, records may be disclosed for general routine uses C and I. Records may also be used:

1. Prior to the completion of data collection, the survey contractor uses information in the system to devise and attempt to execute a plan to request an interview with all members of the survey sample; access to such information is available only to those involved in the sample design and its implementation in the field.

2. Upon completion of data collection, access by the contractor to the system is limited to the specific information necessary to complete the initial processing of the data and to respond to requests from survey participants.

3. At the Board, access to data from the system is available only to staff

members who have the primary responsibility for conducting and processing the survey.

**POLICIES AND PRACTICES FOR STORING, RETRIEVING, ACCESSING, RETAINING, AND DISPOSING OF RECORDS IN THE SYSTEM:**

*Storage.* Records are stored in paper and electronic form.

*Retrievability.* Records of answers provided by survey participants or interviewers can be retrieved by an identification number (which is generated for administrative purposes). Control file records can be retrieved by all categories of identifying information and above noted identification number.

*Access Controls.* Access to records is limited to those whose official duties, consistent with CIPSEA, require it. All records are secured by such controls as required to comply with CIPSEA.

*Retention and disposal.* All input information is retained at least six months after the accuracy of the database has been verified and destroyed when no longer needed for administrative or reference purposes. The final version of the SCF data set is one statistically altered to protect the identity of the survey participants; this data set is placed in the public domain. A data set without these alterations is retained as a restricted version within the Microeconomics Surveys Unit at the Federal Reserve Board.

**SYSTEMS MANAGER AND ADDRESS:**

Head, Microeconomic Surveys Unit, Financial Studies Section, Division of Research and Statistics, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

**NOTIFICATION PROCEDURES:**

An individual desiring to learn of the existence of, or to gain access to, his or her record in this system of records shall submit a request in writing to the Secretary of the Board, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551. The request should contain: (1) A statement that it is made pursuant to the Privacy Act of 1974, (2) the name of the system of records expected to contain the record requested or a concise description of such system of records, (3) necessary information to verify the identity of the requester, and (4) any other information that may assist in the rapid identification of the record for which access is being requested.

**RECORD ACCESS PROCEDURES:**

Same as ''Notification procedures'' above.

**CONTESTING RECORD PROCEDURES:**

Same as ''Notification procedures'' above except that the envelope should be clearly marked ''Privacy Act Amendment Request.'' The request for amendment of a record should: (1) Identify the system of records containing the record for which amendment is requested, (2) specify the portion of that record requested to be amended, and (3) describe the nature of and reasons for each requested amendment.

**RECORD SOURCE CATEGORIES:**

Information is provided by survey participants. Other information about the steps taken to obtain an interview, the progress of the interview, and the general characteristics of the neighborhood of the sample address, is obtained from the survey interviewers. Technical sample design information for a geographically based part of the survey sample is obtained from NORC; for sample members in the other part of the sample, statistical records derived from individual tax returns are obtained from the Statistics of Income Division of the Internal Revenue Service.

**EXEMPTIONS CLAIMED FOR THE SYSTEM:**

None.

## BGFRS–21

**SYSTEM NAME:**

FRB—Supervisory Enforcement Actions and Special Examinations Tracking System.

**SYSTEM LOCATION:**

Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

Some information is collected and maintained, on behalf of the Board, by the twelve Federal Reserve Banks.

**CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:**

Directors, officers, employees, shareholders, agents, independent contractors, and persons participating in the conduct of the affairs of entities regulated by the Board (''institution-affiliated parties'') who may have been involved in suspected criminal activity, suspicious activities under the Bank Secrecy Act, potential or actual violations of law, or unsafe and unsound banking practices, and other individuals who may have been involved in suspected criminal activity, suspicious activities under the Bank Secrecy Act, violations of law, or unsafe or unsound banking practices referenced in documents received or prepared by the Board in the course of exercising its supervisory functions.

**CATEGORIES OF RECORDS IN THE SYSTEM:**

Inter- and intra-agency correspondence, memoranda, reports, and notes. The records stored in Supervisory Enforcement Actions and Special Examinations Tracking System (SEASE) contain information identifying and/or describing particular financial institutions and individuals; suspected criminal activity, suspicious activity under the Bank Secrecy Act, violations of law, or unsafe and unsound banking practices; dollar amounts; dates of suspicious activity, violation, or unsafe and unsound banking practice; and witnesses. The records may include the following information about current or former institution-affiliated parties or other individuals: Name; date of birth; employment relationship to institution; employment termination date; social security number or taxpayer identification number; current employer; name(s) of the financial institution that the individual is/was affiliated with in connection with alleged violations of law, suspicious activity, or unsafe and unsound banking practices; information regarding alleged violations of law, suspicious activity, or unsafe and unsound banking practices; and examination, supervisory, investigatory and/or enforcement comments in connection with alleged violations of law, suspicious activity, or unsafe and unsound banking practices. SEASE also tracks a number of other dates including case opening, approvals of case management and enforcement decisions, and effective dates and termination dates of enforcement actions.

**AUTHORITY FOR MAINTENANCE OF THE SYSTEM:**

The Federal Reserve Act (12 U.S.C. 221 *et seq.*); the Change in Bank Control Act (12 U.S.C. 1817(j)); the Bank Merger Act (12 U.S.C. 1828(c)); the Federal Deposit Insurance Act (12 U.S.C. 1811 *et seq.*); the Bank Holding Company Act (12 U.S.C. 1841 *et seq.*); the Bank Service Company Act (12 U.S.C. 1861 *et seq.*); the International Banking Act (12 U.S.C. 3101 *et seq.*); the consumer protection laws regarding practices by banks and other financial institutions supervised and regulated by the Board; the Board's Regulations (12 CFR 201 *et seq.*); and Executive Order 9397.

**PURPOSE(S):**

These records are collected and maintained to serve as a central repository and tracking system for Federal Reserve System investigatory and enforcement actions.

**ROUTINE USES OF RECORDS MAINTAINED IN THE SYSTEM, INCLUDING CATEGORIES OF USERS AND THE PURPOSES OF SUCH USES:**

General routine uses A, C, D, G, and I apply to this system. Records may also be used:

1. To disclose to federal financial regulatory agencies and FinCEN information relevant to their enforcement authority;
2. To disclose information to third parties during the course of an investigation to the extent necessary to obtain information pertinent to the investigation; and
3. To disclose information with regard to formal enforcement actions pursuant to 12 U.S.C. 1818(u), which requires the Board to publish and make available certain enforcement documents.

**POLICIES AND PRACTICES FOR STORING, RETRIEVING, ACCESSING, RETAINING, AND DISPOSING OF RECORDS IN THE SYSTEM:**

*Storage.* Records are stored in paper and electronic form.

*Retrievability.* Records can be retrieved by indexes of data fields, including name of financial institution, Federal Reserve Bank District, and individuals' names, social security number or taxpayer identification number, date of birth, employment relationship, employment termination date, and current employer.

*Access Controls.* Access to records is limited to those whose official duties require it. Paper records are secured by lock and key and electronic records are password protected.

*Retention and disposal.* All records are retained with related records and deleted when no longer needed for administrative or reference purposes.

**SYSTEM MANAGER AND ADDRESS:**

Special Counsel (Manager), Supervisory Enforcement Actions Section, Banking Supervision and Regulation, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

**NOTIFICATION PROCEDURES:**

An individual desiring to learn of the existence of, or to gain access to, his or her record in this system of records shall submit a request in writing to the Secretary of the Board, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551. The request should contain: (1) A statement that it is made pursuant to the Privacy Act of 1974, (2) the name of the system of records expected to contain the record requested or a concise description of such system of records, (3) necessary information to verify the identity of the requester, and (4) any other information that may assist in the rapid identification of the record for which access is being requested.

**RECORD ACCESS PROCEDURES:**

Same as ''Notification procedures'' above.

**CONTESTING RECORD PROCEDURES:**

Same as ''Notification procedures'' above except that the envelope should be clearly marked ''Privacy Act Amendment Request.'' The request for amendment of a record should: (1) Identify the system of records containing the record for which amendment is requested, (2) specify the portion of that record requested to be amended, and (3) describe the nature of and reasons for each requested amendment.

**RECORD SOURCE CATEGORIES:**

Information is provided by various sources, including, *inter alia,* law enforcement and other agency personnel involved in sending inquiries to the Board, documents received by the Board in the course of executing the Board's supervisory responsibilities, and reports and forms filed by individuals to whom the record pertains. The information maintained by FinCEN is compiled from SAR and related historical and updating forms compiled by financial institutions, the Board, and the other federal financial regulatory agencies for law enforcement purposes.

**EXEMPTIONS CLAIMED FOR THE SYSTEM:**

Certain portions of this system of records may be exempt from 5 U.S.C. 552a(c)(3), (d), (e)(1), (e)(4)(G), (H), and (I), and (f) of the Privacy Act pursuant to 5 U.S.C. 552a(k)(2).

## BGFRS–23

**SYSTEM NAME:**

FRB—Freedom of Information Act and Privacy Act Case Tracking and Reporting System.

**SYSTEM LOCATION:**

Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

**CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:**

Individuals who have submitted requests and individuals whose records are requested by others under the provisions of the Freedom of Information Act (FOIA) or the Privacy Act (PA), and individuals who have submitted feedback regarding the FOIA or PA programs and the processing of FOIA or PA requests.

**CATEGORIES OF RECORDS IN THE SYSTEM:**

For individuals who have submitted requests, the following categories of records are maintained in this system: The log number assigned to the request, the name and address of a requester, the date of the request, the date a response is due, the date of the determination letter, the date responsive documents were mailed to requester, a brief description of the information requested, the names of Board staff to whom the request was assigned for processing, fee data, and other information used for tracking and to compile the FOIA Annual Report and other required reports. For individuals who have submitted feedback, the following categories of records are maintained in this system: The name and address of the individuals submitting the feedback, the date of the submission, the content of the feedback, a description of the subject matter of the feedback, the name of the Board employee who received the feedback and the response to the feedback.

**AUTHORITY FOR MAINTENANCE OF THE SYSTEM:**

FOIA (5 U.S.C. 552), PA (5 U.S.C. 552a), and 12 CFR 261 and 261a.

**PURPOSE(S):**

These records are collected and maintained to assist the Board in carrying out its responsibilities under the FOIA and PA.

**ROUTINE USES OF RECORDS MAINTAINED IN THE SYSTEM, INCLUDING CATEGORIES OF USERS AND THE PURPOSES OF SUCH USES:**

General routine uses C and I apply to this system. Records may also be used:

1. To provide information to another federal agency, which furnished information responsive to a request, for the purpose of making a decision regarding access or amendment to the responsive information; and
2. To release information to the news media and the public, unless it is determined that release of specific information in the context of a particular case would constitute an unwarranted invasion of personal privacy.

**POLICIES AND PRACTICES FOR STORING, RETRIEVING, ACCESSING, RETAINING, AND DISPOSING OF RECORDS IN THE SYSTEM:**

*Storage.* Records are stored in paper and electronic form.

*Retrievability.* Records can be retrieved by name of requester, log number assigned to the request, subject matter of the request, or any other field of information that is collected.

*Access Controls.* Access is limited to those whose official duties require it. Paper records are secured by lock and

key and electronic records are password protected.

*Retention and disposal.* All records are retained for the appropriate period which ranges from two years after date of reply to six years after the final action by the agency or final adjudication by courts, whichever is later.

**SYSTEM MANAGER AND ADDRESS:**

Manager, Freedom of Information Office, Office of the Secretary, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

**NOTIFICATION PROCEDURES:**

An individual desiring to learn of the existence of, or to gain access to, his or her record in this system of records shall submit a request in writing to the Secretary of the Board, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551. The request should contain: (1) A statement that it is made pursuant to the Privacy Act of 1974, (2) the name of the system of records expected to contain the record requested or a concise description of such system of records, (3) necessary information to verify the identity of the requester, and (4) any other information that may assist in the rapid identification of the record for which access is being requested.

**RECORD ACCESS PROCEDURES:**

Same as ''Notification procedures'' above.

**CONTESTING RECORD PROCEDURES:**

Same as ''Notification procedures'' above except that the envelope should be clearly marked ''Privacy Act Amendment Request.'' The request for amendment of a record should: (1) Identify the system of records containing the record for which amendment is requested, (2) specify the portion of that record requested to be amended, and (3) describe the nature of and reasons for each requested amendment.

**RECORD SOURCE CATEGORIES:**

Information is provided by the individual making the request or submitting feedback regarding the FOIA or PA program, other agencies referring requests for access to or correction of records originating at the Board, and Board employees engaged in processing or making determinations on the requests or responding to the feedback.

**EXEMPTIONS CLAIMED FOR THE SYSTEM:**

None.

## BGFRS–24

**SYSTEM NAME:**

FRB—EEO General Files.

**SYSTEM LOCATION:**

Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

**CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:**

Past and present employees of the Board.

**CATEGORIES OF RECORDS IN THE SYSTEM:**

Self-identification reports of current and former employees regarding race, national origin, sex, and disability; identification by Board staff regarding the race, national origin, sex, and disability for those employees who refuse to voluntarily provide the information; and EEO-related training records.

**AUTHORITY FOR MAINTENANCE OF THE SYSTEM:**

Rehabilitation Act of 1973 (29 U.S.C. 791); Title VII of the Civil Rights Act (42 U.S.C. 2000e *et seq.*); Equal Pay Act (29 U.S.C. 206); sections 10 and 11 of the Federal Reserve Act (12 U.S.C. 244 and 248); and the Notification and Federal Employee Antidiscrimination and Retaliation Act of 2002 (*5 U.S.C. 2301, note*).

**PURPOSE(S):**

These records are collected and maintained to assist the Board in carrying out its responsibilities under the Rehabilitation Act of 1973, Title VII of the Civil Rights Act, and other nondiscrimination statutes.

**ROUTINE USES OF RECORDS MAINTAINED IN THE SYSTEM, INCLUDING CATEGORIES OF USES AND THE PURPOSES OF SUCH USES:**

General routine uses A, B, C, D, F, G and I apply to this system. Records may also be used to disclose information to management as a data source for production of summary descriptive statistics and analytical studies in support of the function for which the records are collected and maintained, or for related personnel management functions or manpower studies and may also be utilized to respond to investigative or legal requests for statistical information (without personal identification of individuals).

**POLICIES AND PRACTICES FOR STORING, RETRIEVING, ACCESSING, RETAINING, AND DISPOSING OF RECORDS IN THE SYSTEM:**

*Storage.* Records are stored in paper and electronic form.

*Retrievability.* Records can be retrieved by the individual's name.

*Access Controls.* Access to records is limited to those whose official duties require it. Paper records are secured by lock and key and electronic records are password protected.

*Retention and disposal.* All records are retained for three years, or when superseded or obsolete.

**SYSTEM MANAGER AND ADDRESS:**

EEO Programs Director, Office of the Staff Director for Management, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

**NOTIFICATION PROCEDURES:**

An individual desiring to learn of the existence of, or to gain access to, his or her record in this system of records shall submit a request in writing to the Secretary of the Board, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551. The request should contain: (1) A statement that it is made pursuant to the Privacy Act of 1974, (2) the name of the system of records expected to contain the record requested or a concise description of such system of records, (3) necessary information to verify the identity of the requester, and (4) any other information that may assist in the rapid identification of the record for which access is being requested.

**RECORD ACCESS PROCEDURES:**

Same as ''Notification procedures'' above.

**CONTESTING RECORD PROCEDURES:**

Same as ''Notification procedures'' above except that the envelope should be clearly marked ''Privacy Act Amendment Request.'' The request for amendment of a record should: (1) Identify the system of records containing the record for which amendment is requested, (2) specify the portion of that record requested to be amended, and (3) describe the nature of and reasons for each requested amendment.

**RECORD SOURCE CATEGORIES:**

The information is provided by the individual to whom the record pertains and employees responsible for administering the Board's EEO program.

**EXEMPTIONS CLAIMED FOR THE SYSTEM:**

None.

## BGFRS–25

**SYSTEM NAME:**

FRB—Multi-Rater Feedback Records.

**SYSTEM LOCATION:**

Board of Governors of the Federal Reserve System, 20th Street and

Constitution Avenue, NW., Washington, DC 20551.

The completed multi-rater questionnaires and the resulting feedback reports are collected and maintained, on behalf of the Board, by the Hay Group at SunGard Data Systems Inc., 680 East Swedesford Road, Wayne, Pennsylvania 19087. Based on the information provided by the completed questionnaires, the contractor provides an individual feedback report to the individual being evaluated. With the exception of the feedback report that is provided to the individual being evaluated, no individually identifiable information is maintained on the Board's premises.

**CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:**

Past and present employees of the Board who have participated in the multi-rater feedback program.

**CATEGORIES OF RECORDS IN THE SYSTEM:**

Questionnaires completed by the individual being evaluated and his or her respondents, analyses of the questionnaires, and feedback reports compiled by the contractor based upon the analyses.

**AUTHORITY FOR MAINTENANCE OF THE SYSTEM:**

Sections 10 and 11 of the Federal Reserve Act (12 U.S.C. 244 and 248).

**PURPOSE(S):**

These records are collected and maintained to assist the Board in administering its personnel functions and improving the management skills of its employees.

**ROUTINE USES OF RECORDS MAINTAINED IN THE SYSTEM, INCLUDING CATEGORIES OF USERS AND THE PURPOSES OF SUCH USES:**

General routines uses A, C, D, F, G, H, and I apply to this system. Records may also be used to disclose information to an arbitrator to resolve disputes under a negotiated grievance procedure or to officials of labor organizations recognized under applicable law, regulation, or policy when relevant and necessary to their duties of exclusive representation concerning personnel policies, practices, and matters affecting working conditions.

**POLICIES AND PRACTICES FOR STORING, RETRIEVING, ACCESSING, RETAINING, AND DISPOSING OF RECORDS IN THE SYSTEM:**

*Storage.* Records are stored in paper and electronic form.

*Retrievabililty.* Records can be retrieved by the name of the individual being evaluated.

*Access Controls.* The contractor maintains strict confidentiality of the information. Information in these files is not provided to Board employees, except the individual being evaluated.

*Retention and disposal.* All records are retained for four years.

**SYSTEM MANAGER AND ADDRESS:**

Training Supervisor, Management Division, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

**NOTIFICATION PROCEDURES:**

An individual desiring to learn of the existence of, or to gain access to, his or her record in this system of records shall submit a request in writing to the Secretary of the Board, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551. The request should contain: (1) A statement that it is made pursuant to the Privacy Act of 1974, (2) the name of the system of records expected to contain the record requested or a concise description of such system of records, (3) necessary information to verify the identity of the requester, and (4) any other information that may assist in the rapid identification of the record for which access is being requested.

**RECORD ACCESS PROCEDURES:**

Same as ''Notification procedures'' above.

**CONTESTING RECORD PROCEDURES:**

Same as ''Notification procedures'' above except that the envelope should be clearly marked ''Privacy Act Amendment Request.'' The request for amendment of a record should: (1) Identify the system of records containing the record for which amendment is requested, (2) specify the portion of that record requested to be amended, and (3) describe the nature of and reasons for each requested amendment.

**RECORD SOURCE CATEGORIES:**

Information is provided by the individual and his or her respondents, which may include the individual's peers and supervisors.

**EXEMPTIONS CLAIMED FOR THE SYSTEM:**

Certain portions of this system of records may be exempted from 5 U.S.C. 552a(c)(3), (d), (e)(1), (e)(4)(G), (H), and (I), and (f) of the Privacy Act pursuant to 5 U.S.C. 552a(k)(5).

## BGFRS–26

**SYSTEM NAME:**

FRB—Employee Relations Records.

**SYSTEM LOCATION:**

Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

**CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:**

Past and present Board employees (including special employees) with work-related issues that have involved the employee relations specialists in the Human Resources Function of the Management Division.

**CATEGORIES OF RECORDS IN THE SYSTEM:**

Written communications and related documents involved in adjusting work-related problems, including copies of records included in other systems of records, including Performance Management Program (PMP) reports and related documentation, records of disciplinary actions, and records related to the Personal Placement Program.

**AUTHORITY FOR MAINTENANCE OF THE SYSTEM:**

Sections 10 and 11 of the Federal Reserve Act (12 U.S.C. 244 and 248).

**PURPOSE(S):**

These records are collected and maintained to assist the Board in administering its personnel functions, and to assist employees in resolving work-related issues.

**ROUTINE USES OF RECORDS MAINTAINED IN THE SYSTEM, INCLUDING CATEGORIES OF USERS AND THE PURPOSES OF SUCH USES:**

General routine uses A, B, C, D, E, F, G, H, and I apply to this system. Records may also be used to disclose information to any source from which additional information is requested (to the extent necessary to identify the individual, inform the source of the purpose(s) of the request, and to identify the type of information requested), when necessary to obtain information relevant to a Board decision to hire or retain an employee, issue a security clearance, conduct a security or suitability investigation of an individual, classify jobs, let a contract, or issue a license, grant, or other benefits.

**POLICIES AND PRACTICES FOR STORING, RETRIEVING, ACCESSING, RETAINING, AND DISPOSING OF RECORDS IN THE SYSTEM:**

*Storage.* Records are stored in paper and electronic form. Electronic records are stored in the Federal Reserve Integrated Records Management Architecture (FIRMA).

*Retrievabililty.* Records can be retrieved by the names of the individuals on whom they are maintained or by employee identification number.

*Access Controls.* Access is limited to those whose official duties require it. Paper records are secured by lock and key and electronic records are password protected.

*Retention and disposal.* All records relating to an employee's performance are retained for a period of ten years. All other records are retained for the appropriate period in accordance with the time period set forth in National Archives' General Records Schedule number 1.

**SYSTEM MANAGER AND ADDRESS:**

Manager, Staffing, ER and Clearances, Management Division, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

**NOTIFICATION PROCEDURES:**

An individual desiring to learn of the existence of, or to gain access to, his or her record in this system of records shall submit a request in writing to the Secretary of the Board, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551. The request should contain: (1) A statement that it is made pursuant to the Privacy Act of 1974, (2) the name of the system of records expected to contain the record requested or a concise description of such system of records, (3) necessary information to verify the identity of the requester, and (4) any other information that may assist in the rapid identification of the record for which access is being requested.

**RECORD ACCESS PROCEDURES:**

Same as ''Notification procedures'' above.

**CONTESTING RECORD PROCEDURES:**

Same as ''Notification procedures'' above except that the envelope should be clearly marked ''Privacy Act Amendment Request.'' The request for amendment of a record should: (1) Identify the system of records containing the record for which amendment is requested, (2) specify the portion of that record requested to be amended, and (3) describe the nature of and reasons for each requested amendment.

**RECORD SOURCE CATEGORIES:**

Information is provided by the individual to whom the record pertains; the individual's managers, supervisors, and officers; employees and officers in the Human Resources Function of the Management Division.

**EXEMPTIONS CLAIMED FOR THE SYSTEM:**

None.

## BGFRS–27

**SYSTEM NAME:**

FRB—Performance Management Program Records.

**SYSTEM LOCATION:**

Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

Final Performance Management Program (PMP) reports are maintained by the Human Resources Function of the Management Division. Supporting documentation for the reports is maintained in the division where the employee works or worked.

**CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:**

Past and present Board employees.

**CATEGORIES OF RECORDS IN THE SYSTEM:**

Completed PMP reports, attachments, and supporting documentation; submissions and written suggestions by the subject employee; and records of PMP objective-setting sessions.

**AUTHORITY FOR MAINTENANCE OF THE SYSTEM:**

Sections 10 and 11 of the Federal Reserve Act (12 U.S.C. 244 and 248).

**PURPOSE(S):**

These records are collected and maintained to assist the Board in administering its personnel functions.

**ROUTINE USES OF RECORDS MAINTAINED IN THE SYSTEM, INCLUDING CATEGORIES OF USERS AND THE PURPOSES OF SUCH USES:**

General routine uses A, B, C, D, E, F, G, H, and I apply to this system. Records may also be used to disclose information to public and private organizations, including news media, which grant or publicize employee awards.

**POLICIES AND PRACTICES FOR STORING, RETRIEVING, ACCESSING, RETAINING, AND DISPOSING OF RECORDS IN THE SYSTEM:**

*Storage.* Records are stored in paper and electronic form. Electronic records are stored in the Federal Reserve Integrated Records Management Architecture (FIRMA).

*Retrievabililty.* Records can be retrieved by the names of the individuals on whom they are maintained.

*Access Controls.* Access to records is limited to those whose official duties require it. Paper records are secured by lock and key and electronic records are password protected.

*Retention and disposal.* All records are retained for a period of ten years.

**SYSTEM MANAGER AND ADDRESS:**

Associate Director, Human Resources, Management Division, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

**NOTIFICATION PROCEDURES:**

An individual desiring to learn of the existence of, or to gain access to, his or her record in this system of records shall submit a request in writing to the Secretary of the Board, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551. The request should contain: (1) A statement that it is made pursuant to the Privacy Act of 1974, (2) the name of the system of records expected to contain the record requested or a concise description of such system of records, (3) necessary information to verify the identity of the requester, and (4) any other information that may assist in the rapid identification of the record for which access is being requested.

**RECORD ACCESS PROCEDURES:**

Same as ''Notification procedures'' above.

**CONTESTING RECORD PROCEDURES:**

Same as ''Notification procedures'' above except that the envelope should be clearly marked ''Privacy Act Amendment Request.'' The request for amendment of a record should: (1) Identify the system of records containing the record for which amendment is requested, (2) specify the portion of that record requested to be amended, and (3) describe the nature of and reasons for each requested amendment.

**RECORD SOURCE CATEGORIES:**

Information is provided by the individual to whom the record pertains, and the individual's manager(s).

**EXEMPTIONS CLAIMED FOR THE SYSTEM:**

None.

## BGFRS–28

**SYSTEM NAME:**

FRB—Employee Assistance Program Records.

**SYSTEM LOCATION:**

This information is collected and maintained, on behalf of the Board, by Cope, Inc. at 1129 G Street, NW., Suite 550, Washington, DC 20005.

**CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:**

Past and present employees, and their spouses and dependent children, who have consulted with, or been referred to,

the Employee Assistance Program (EAP).

**CATEGORIES OF RECORDS IN THE SYSTEM:**

Case files developed for each client seen by a counselor, including notes of each contact between the client and counselor, an intake form, the counselor's assessment, the kind of services being provided (including referrals), any release forms signed, and follow-up information on the outcome of the consultation.

**AUTHORITY FOR MAINTENANCE OF THE SYSTEM:**

Sections 10 and 11 of the Federal Reserve Act (12 U.S.C. 244 and 248) and Executive Order 12564.

**PURPOSE(S):**

These records are collected and maintained to assist the Board in providing a safe and healthy working environment, and to comply with Executive Order 12564.

**ROUTINE USES OF RECORDS MAINTAINED IN THE SYSTEM, INCLUDING CATEGORIES OF USERS AND THE PURPOSES OF SUCH USES:**

Records may be used:

1. To disclose information to a new employee assistance contractor following a contract transition for the services; and

2. To disclose information to family members or guardians, the appropriate law enforcement officers, security services, or child protective services, or other appropriate persons:

(a) Where there is a reason to suspect abuse or neglect of children or other vulnerable persons,

(b) Where the individual using the EAP services poses a serious threat to the health or safety of himself or herself or another individual, or

(c) Where the individual using EAP services presents a clear and present danger to the safety and security of the community, workplace, or nation.

**POLICIES AND PRACTICES FOR STORING, RETRIEVING, ACCESSING, RETAINING, AND DISPOSING OF RECORDS IN THE SYSTEM:**

*Storage.* Records are stored in paper form.

*Retrievabililty.* Records can be retrieved by the name of the individual.

*Access Controls.* Only staff of the EAP have access to the files, which are maintained on the premises of the contractor hired to administer the program.

*Retention and disposal.* All records are retained for three years after the termination of counseling.

**SYSTEM MANAGER AND ADDRESS:**

Employee Assistance Program Administrator, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

**NOTIFICATION PROCEDURES:**

An individual desiring to learn of the existence of, or to gain access to, his or her record in this system of records shall submit a request in writing to the Secretary of the Board, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551. The request should contain: (1) A statement that it is made pursuant to the Privacy Act of 1974, (2) the name of the system of records expected to contain the record requested or a concise description of such system of records, (3) necessary information to verify the identity of the requester, and (4) any other information that may assist in the rapid identification of the record for which access is being requested.

**RECORD ACCESS PROCEDURES:**

Same as ''Notification procedures'' above.

**CONTESTING RECORD PROCEDURES:**

Same as ''Notification procedures'' above except that the envelope should be clearly marked ''Privacy Act Amendment Request.'' The request for amendment of a record should: (1) Identify the system of records containing the record for which amendment is requested, (2) specify the portion of that record requested to be amended, and (3) describe the nature of and reasons for each requested amendment.

**RECORD SOURCE CATEGORIES:**

Information is provided by the individual to whom the record pertains; the EAP counselor; the Board's EAP administrator; an employee's physical or mental health care provider or counselor; medical institutions; the contractor administering the Drug-Free Workplace Plan; and Federal Reserve System personnel records.

**EXEMPTIONS CLAIMED FOR THE SYSTEM:**

None.

## BGFRS–29

**SYSTEM NAME:**

FRB—Benefits Records.

**SYSTEM LOCATION:**

Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

Some information is collected and maintained, on behalf of the Board, by its benefits contractors.

**CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:**

Past and present Board employees and their named beneficiaries.

**CATEGORIES OF RECORDS IN THE SYSTEM:**

All forms relating to employee benefits, records relating to claims filed for benefits, and memoranda relating to individuals' benefits. These benefits include health insurance, dental plan, life insurance, disability coverage, accident insurance, flexible spending accounts, premium conversion accounts, voluntary plans (i.e., Auto Insurance), retirement and thrift plans, and any other benefits offered by the Board.

**AUTHORITY FOR MAINTENANCE OF THE SYSTEM:**

Sections 10 and 11 of the Federal Reserve Act (12 U.S.C. 244 and 248).

**PURPOSE(S):**

These records are collected and maintained to administer the Board's benefits programs for its employees and assist in personnel management.

**ROUTINE USES OF RECORDS MAINTAINED IN THE SYSTEM, INCLUDING CATEGORIES OF USERS AND THE PURPOSES OF SUCH USES:**

General routine uses A, B, C, D, F, G, H, and I apply to this system. Records may also be used:

1. To disclose information to the Board's Thrift Plan, the Board's Group Life Insurance administrators, Department of Labor, Department of Veterans Affairs, Social Security Administration, Department of Defense, a Federal Reserve Bank, or any federal agencies that have special civilian employee retirement programs; or to a national, state, county, municipal, or other publicly recognized charitable or income security administration agency (e.g., state unemployment-compensation agencies), when necessary to adjudicate a claim under the retirement, insurance, unemployment, or health benefits programs of the Board, a Federal Reserve Bank, or any agency cited above, or to an agency to conduct an analytical study or audit of benefits being paid under such programs;

2. To disclose to the Office of Personnel Management's Federal Employees Group Life Insurance Program information necessary to verify election, declination, or waiver of regular and/or optional life insurance coverage, eligibility for payment of a claim for life insurance, or a Thrift Savings Program (TSP) election change and designation of beneficiary;

3. To disclose to health insurance carriers that provide a health benefits plan under the Federal Employees Health Benefits Program information

that is necessary to verify eligibility for payment of a claim for health benefits; and

4. To disclose information to the executor of an individual's estate, the government entity probating a will, a designated beneficiary, or to any person who is responsible for the care of an individual to the extent necessary when the individual to whom a record pertains is deceased, or mentally incompetent, or under other legal disability, and to disclose information to an individual's emergency contact when necessary to assist that individual in obtaining any employment benefit or any working condition, such as accommodations under the Rehabilitation Act of 1973.

**POLICIES AND PRACTICES FOR STORING, RETRIEVING, ACCESSING, RETAINING, AND DISPOSING OF RECORDS IN THE SYSTEM:**

*Storage.* Records are stored in paper and electronic form. Electronic records are stored in the Federal Reserve Integrated Records Management Architecture (FIRMA).

*Retrievabililty.* Records can be retrieved by the names of the individuals on whom they are maintained.

*Access Controls.* Access is limited to those whose official duties require it. Paper records are secured by lock and key and electronic records are password protected.

*Retention and disposal.* Records regarding transferred employees are transferred to the employee's new agency. Other records are retained for sixty-five years after the employee's separation from Board service.

**SYSTEM MANAGER AND ADDRESS:**

Manager, Payroll, Compensation and Benefits, Management Division, Board of Governors of the Federal Reserve System, 20th and Constitution, NW., Washington, DC 20551.

**NOTIFICATION PROCEDURES:**

An individual desiring to learn of the existence of, or to gain access to, his or her record in this system of records shall submit a request in writing to the Secretary of the Board, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551. The request should contain: (1) A statement that it is made pursuant to the Privacy Act of 1974, (2) the name of the system of records expected to contain the record requested or a concise description of such system of records, (3) necessary information to verify the identity of the requester, and (4) any other information that may assist in the rapid identification of the record for which access is being requested.

**RECORD ACCESS PROCEDURES:**

Same as ''Notification procedures'' above.

**CONTESTING RECORD PROCEDURES:**

Same as ''Notification procedures'' above except that the envelope should be clearly marked ''Privacy Act Amendment Request.'' The request for amendment of a record should: (1) Identify the system of records containing the record for which amendment is requested, (2) specify the portion of that record requested to be amended, and (3) describe the nature of and reasons for each requested amendment.

**RECORD SOURCE CATEGORIES:**

Information is provided by the individual to whom the record pertains, the benefit provider, and staff of Human Resources in the Management Division.

**EXEMPTIONS CLAIMED FOR THE SYSTEM:**

None.

## BGFRS–30

**SYSTEM NAME:**

FRB—Academic Assistance Program Files.

**SYSTEM LOCATION:**

Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

The primary files are maintained by the Human Resources Function of the Management Division. Supporting documentation may be maintained in the division where the employee works or worked.

**CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:**

Past and present Board employees.

**CATEGORIES OF RECORDS IN THE SYSTEM:**

Applications for academic assistance; descriptions of course work by at universities; documents relating to requests for exceptions to sections of the Academic Assistance Policy; reimbursement documentation for textbooks; and a database that tracks all courses applied for, completed, and reimbursed.

**AUTHORITY FOR MAINTENANCE OF THE SYSTEM:**

Sections 10 and 11 of the Federal Reserve Act (12 U.S.C. 244 and 248).

**PURPOSE(S):**

These records are collected and maintained to assist the Board in its personnel management and in providing training and educational opportunities to its employees.

**ROUTINE USES OF RECORDS MAINTAINED IN THE SYSTEM, INCLUDING CATEGORIES OF USERS AND THE PURPOSES OF SUCH USES:**

General routine uses A, B, C, D, F, G, H, and I apply to this system.

**POLICIES AND PRACTICES FOR STORING, RETRIEVING, ACCESSING, RETAINING, AND DISPOSING OF RECORDS IN THE SYSTEM:**

*Storage.* Records are stored in paper and electronic form.

*Retrievabililty.* Records can be retrieved by the names of the individuals on whom they are maintained.

*Access Controls.* Access to these records is limited to those whose official duties require it. Paper records are secured by lock and key and electronic records are password protected.

*Retention and disposal.* All records are retained for five years or when superseded or obsolete, whichever is sooner.

**SYSTEM MANAGER AND ADDRESS:**

Training Supervisor, Management Division, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

**NOTIFICATION PROCEDURES:**

An individual desiring to learn of the existence of, or to gain access to, his or her record in this system of records shall submit a request in writing to the Secretary of the Board, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551. The request should contain: (1) A statement that it is made pursuant to the Privacy Act of 1974, (2) the name of the system of records expected to contain the record requested or a concise description of such system of records, (3) necessary information to verify the identity of the requester, and (4) any other information that may assist in the rapid identification of the record for which access is being requested.

**RECORD ACCESS PROCEDURES:**

Same as ''Notification procedures'' above.

**CONTESTING RECORD PROCEDURES:**

Same as ''Notification procedures'' above except that the envelope should be clearly marked ''Privacy Act Amendment Request.'' The request for amendment of a record should: (1) Identify the system of records containing the record for which amendment is requested, (2) specify the portion of that record requested to be

amended, and (3) describe the nature of and reasons for each requested amendment.

**RECORD SOURCE CATEGORIES:**

Information is provided by the individual to whom the record pertains and his or her supervisor.

**EXEMPTIONS CLAIMED FOR THE SYSTEM:**

None.

## BGFRS–31

**SYSTEM NAME:**

FRB—Protective Information System.

**SYSTEM LOCATION:**

Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

**CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:**

Individuals who are the subject of protective and background investigations by the Board's Protective Services Unit and/or law enforcement agencies where the evaluation of such individuals, in accordance with criteria established by the Protective Services Unit, indicates a need for such investigations; individuals who are the subject of investigative records and reports supplied to the Board's Protective Services Unit by federal, state, and local law enforcement agencies, foreign or domestic, other non-law enforcement governmental agencies, or private institutions and individuals; and individuals who have attempted or solicited unauthorized entry into areas secured by the Board's Protective Services Unit; individuals who have sought unauthorized contact with persons protected by the Protective Services Unit; or individuals who have been involved in incidents or events which relate to the protective functions of the Protective Services Unit.

**CATEGORIES OF RECORDS IN THE SYSTEM:**

Records containing information supplied by federal, state, and local law enforcement agencies, foreign or domestic, other non-law enforcement governmental agencies, private institutions and persons concerning individuals who, because of their current activities, background, prior activities and/or behavior, may be of interest to the Board's Protective Services Unit; records containing information compiled for the purpose of identifying and evaluating individuals who may constitute a threat to the safety of persons or security of areas protected by the Board's Protective Services Unit; and records containing information compiled for the purpose of background investigations of individuals, including but not limited to, passholders, tradesmen, maintenance or service personnel who have access to areas secured by or who may be in close proximity to persons protected by the Board's Protective Services Unit.

**AUTHORITY FOR MAINTENANCE OF THE SYSTEM:**

Sections 10 and 11 of the Federal Reserve Act (12 U.S.C. 244 and 248).

**PURPOSE(S):**

These records are collected and maintained to assist the Board in providing a safe and secure environment for the chairman, Board members and other Federal Reserve System staff.

**ROUTINE USES OF RECORDS MAINTAINED IN THE SYSTEM, INCLUDING CATEGORIES OF USERS AND THE PURPOSES OF SUCH USES:**

General routine uses A, B, C, D, G, and I apply to this system. Records may also be used to disclose information to personnel of federal, state, and local law enforcement agencies, and other governmental agencies foreign or domestic: (a) For the purpose of developing information on subjects involved in protective investigations and evaluations and for the purpose of protective intelligence briefings of personnel of other law enforcement and governmental agencies assisting the Board's Protective Services Unit in the performance of its protective functions; (b) where such disclosures are considered reasonably necessary for the purpose of furthering efforts to investigate the activities of those persons considered to be of protective interest; or (c) where there is a showing of a reasonable need to accomplish a valid law enforcement purpose.

**POLICIES AND PRACTICES FOR STORING, RETRIEVING, ACCESSING, RETAINING, AND DISPOSING OF RECORDS IN THE SYSTEM:**

*Storage.* Records are stored in paper and electronic form.

*Retrievability.* Records can be retrieved by name, address, telephone numbers, and other identifying information.

*Access controls.* Access to records is limited to those whose official duties require it. Paper records are secured by lock and key and electronic records are password protected.

*Retention and disposal.* The retention for these records is currently under review. Until review is completed, these records will not be destroyed.

**SYSTEM MANAGER AND ADDRESS:**

Director, Protective Services Unit, Office of the Staff Director for Management, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

**NOTIFICATION PROCEDURES:**

An individual desiring to learn of the existence of, or to gain access to, his or her record in this system of records shall submit a request in writing to the Secretary of the Board, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551. The request should contain: (1) A statement that it is made pursuant to the Privacy Act of 1974, (2) the name of the system of records expected to contain the record requested or a concise description of such system of records, (3) necessary information to verify the identity of the requester, and (4) any other information that may assist in the rapid identification of the record for which access is being requested.

**RECORD ACCESS PROCEDURES:**

Same as ''Notification procedures'' above.

**CONTESTING RECORD PROCEDURES:**

Same as ''Notification procedures'' above except that the envelope should be clearly marked ''Privacy Act Amendment Request.'' The request for amendment of a record should: (1) Identify the system of records containing the record for which amendment is requested, (2) specify the portion of that record requested to be amended, and (3) describe the nature of and reasons for each requested amendment.

**RECORD SOURCE CATEGORIES:**

This information is exempt pursuant to 5 U.S.C. 552a(k)(2).

**EXEMPTIONS CLAIMED FOR THE SYSTEM:**

Certain portions of this system of records may be exempt from 5 U.S.C. 552a(c)(3), (d), (e)(1), (e)(4)(G), (e)(4)(H), (e)(4)(I), and (f) of the Privacy Act pursuant to 5 U.S.C. 552a(k)(2).

## BGFRS–32

**SYSTEM NAME:**

FRB—Visitor Registration System.

**SYSTEM LOCATION:**

Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

**CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:**

All visitors to the buildings and other locations owned or leased by the Board.

**CATEGORIES OF RECORDS IN THE SYSTEM:**

This system contains information concerning individuals who wish to enter a building occupied by the Board. The following categories of records are maintained in this system: The individual's name; date of birth; Social Security number or passport number and country of issue; organization or agency; Board employee visited; purpose of visit; date and time of meeting or visit; e-mail address; and whether the individual has been denied access to the Board. In addition, information derived from law enforcement databases may be included in some paper records.

**AUTHORITY FOR MAINTENANCE OF THE SYSTEM:**

Sections 10 and 11 of the Federal Reserve Act (12 U.S.C. 243 and 248), and Executive Order 9397.

**PURPOSE(S):**

The records are collected and maintained to permit the Board to provide for the security of its premises and the personnel in those premises by prescreening visitors.

**ROUTINE USES OF RECORDS MAINTAINED IN THE SYSTEM, INCLUDING CATEGORIES OF USERS AND THE PURPOSES OF SUCH USES:**

General routine uses A, B, C, D, G, and I apply to this system. Records are also used to disclose information to appropriate federal, state, local, or foreign agencies where disclosure is reasonably necessary to determine whether an individual intending to visit the Board poses a security risk.

**POLICIES AND PRACTICES FOR STORING, RETRIEVING, ACCESSING, RETAINING, AND DISPOSING OF RECORDS IN THE SYSTEM:**

*Storage.* Records are stored in paper and electronic form.

*Retrievability.* Records can be retrieved by name, Social Security number, passport number, date of birth, host name, organization, purposes of the visit, and date.

*Access Controls.* Access to records is limited to those whose official duties require it. Paper records are secured by lock and key and electronic records are password protected.

*Retention and disposal.* All records are retained for two years after final entry to the Board or two years after date of document, as appropriate.

**SYSTEM MANAGER AND ADDRESS:**

Assistant Director, Management Division, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

**NOTIFICATION PROCEDURES:**

An individual desiring to learn of the existence of, or to gain access to, his or her record in this system of records shall submit a request in writing to the Secretary of the Board, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551. The request should contain: (1) A statement that it is made pursuant to the Privacy Act of 1974, (2) the name of the system of records expected to contain the record requested or a concise description of such system of records, (3) necessary information to verify the identity of the requester, and (4) any other information that may assist in the rapid identification of the record for which access is being requested.

**RECORD ACCESS PROCEDURES:**

Same as ''Notification procedures'' above.

**CONTESTING RECORD PROCEDURES:**

Same as ''Notification procedures'' above except that the envelope should be clearly marked ''Privacy Act Amendment Request.'' The request for amendment of a record should: (1) Identify the system of records containing the record for which amendment is requested, (2) specify the portion of that record requested to be amended, and (3) describe the nature of and reasons for each requested amendment.

**RECORD SOURCE CATEGORIES:**

Information is provided by the individual who wishes to enter the Board's premises, and, where appropriate, from law enforcement databases.

**EXEMPTIONS CLAIMED FOR THIS SYSTEM:**

Certain portions of this system of records may be exempt from 5 U.S.C. 552a(c)(3), (d), (e)(1), (e)(4)(G), (e)(4)(H), (e)(4)(I), and (f) of the Privacy Act pursuant to 5 U.S.C. 552a(k)(2).

## BGFRS–33

**SYSTEM NAME:**

FRB—Telephone Call Detail Records.

**SYSTEM LOCATION:**

Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

**CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:**

Past and present Board employees, consultants, and contractors who have been assigned a telephone number by the Board.

**CATEGORIES OF RECORDS IN THE SYSTEM:**

Records relating to use of Board telephones to place local and long distance calls; records indicating assignment of telephone numbers to individuals covered by the system; and records relating to location of telephones.

**AUTHORITY FOR MAINTENANCE OF THE SYSTEM:**

Sections 10 and 11 of the Federal Reserve Act (12 U.S.C. 243 and 248).

**PURPOSE(S):**

These records are collected and maintained to detect and prevent unauthorized use of the Board's telephones.

**ROUTINE USES OF RECORDS MAINTAINED IN THE SYSTEM, INCLUDING CATEGORIES OF USERS AND THE PURPOSES OF SUCH USES:**

General routine uses A, B, C, D, F, G, and I apply to this system. Records may also be used to disclose information to current or former Board employees and other individuals currently or formerly provided telephone services by the Board to determine individual responsibility for telephone calls.

**POLICIES AND PRACTICES FOR STORING, RETRIEVING, ACCESSING, RETAINING, AND DISPOSING OF RECORDS IN THE SYSTEM:**

*Storage.* Records are stored in paper and electronic form.

*Retrievability.* Records can be retrieved by name of individual or telephone number or by number(s) dialed.

*Safeguards.* Access to records is limited to those whose official duties require it. Paper records are secured by lock and key and electronic records are password protected.

*Retention and disposal.* The retention and disposal period for these records is currently under review.

**SYSTEM MANAGER AND ADDRESS:**

Director, Division of Information Technology, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

**NOTIFICATION PROCEDURES:**

An individual desiring to learn of the existence of, or to gain access to, his or her record in this system of records shall submit a request in writing to the Secretary of the Board, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551. The request should contain: (1) A statement that it is made pursuant to the Privacy Act of 1974, (2) the name of the system of records expected to contain the record requested or a concise

description of such system of records, (3) necessary information to verify the identity of the requester, and (4) any other information that may assist in the rapid identification of the record for which access is being requested.

**RECORD ACCESS PROCEDURES:**

Same as ''Notification procedures'' above.

**CONTESTING RECORD PROCEDURES:**

Same as ''Notification procedures'' above except that the envelope should be clearly marked ''Privacy Act Amendment Request.'' The request for amendment of a record should: (1) Identify the system of records containing the record for which amendment is requested, (2) specify the portion of that record requested to be amended, and (3) describe the nature of and reasons for each requested amendment.

**RECORD SOURCE CATEGORIES:**

Information is provided by the telephone assignment records; call detail listings; results of administrative inquiries relating to assignment of responsibility for placement of specific long distance and local calls.

**EXEMPTIONS CLAIMED FOR THE SYSTEM:**

None.

## BGFRS–34

**SYSTEM NAME:**

FRB—ESS Staff Identification Card File.

**SYSTEM LOCATION:**

Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

**CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:**

Past and present Board employees, temporary employees, retirees, tenants, other government agency employees who have a need for an FRB identification card, designated Federal Reserve Bank officers and employees, and contractors who have been issued a Board identification card.

**CATEGORIES OF RECORDS IN THE SYSTEM:**

Image of a picture of the individual; the individual's name; card number; finger minutiae; card status; badge expiration date; employer's name (if not the Board); relationship to the Board; card holder type; employee identification number; and division; and, if applicable, authorization to use the exercise facilities, data center, central stock room (CSR), or any other controlled area requiring permissions beyond general access. The database records the times of attempted and authorized card initiated access to and egress from the Board's buildings using the automated access control system. Additionally, access is logged for entry into controlled spaces.

**AUTHORITY FOR MAINTENANCE OF THE SYSTEM:**

Sections 10 and 11 of the Federal Reserve Act (12 U.S.C. 243 and 248).

**PURPOSE(S):**

These records are collected and maintained to provide security of the Board's premises against unauthorized entry; to record entry to Board premises as well as entry into secured areas by authorized personnel; to record departure from Board's premises; to control access to certain areas within Board premises; and to determine who is present on Board property.

**ROUTINE USES OF RECORDS MAINTAINED IN THE SYSTEM, INCLUDING CATEGORIES OF USERS AND THE PURPOSES OF SUCH USES:**

General routine uses A, B, C, D, F, G, and I apply to this system.

**POLICIES AND PRACTICES FOR STORING, RETRIEVING, ACCESSING, RETAINING, AND DISPOSING OF RECORDS IN THE SYSTEM:**

*Storage.* Records are stored in paper and electronic form.

*Retrievability.* Records can be retrieved by area, time/date, name, card number, or employee identification number.

*Access Controls.* Access to records is limited to those whose official duties require it. Paper records are secured by lock and key and electronic records are password protected.

*Retention and disposal.* The retention period for these records is currently under review. Until review is completed, these records will not be destroyed.

**SYSTEM MANAGER AND ADDRESS:**

Manager, Technical Security Unit, Management Division, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

**NOTIFICATION PROCEDURES:**

An individual desiring to learn of the existence of, or to gain access to, his or her record in this system of records shall submit a request in writing to the Secretary of the Board, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551. The request should contain: (1) A statement that it is made pursuant to the Privacy Act of 1974, (2) the name of the system of records expected to contain the record requested or a concise description of such system of records, (3) necessary information to verify the identity of the requester, and (4) any other information that may assist in the rapid identification of the record for which access is being requested.

**RECORD ACCESS PROCEDURES:**

Same as ''Notification procedures'' above.

**CONTESTING RECORD PROCEDURES:**

Same as ''Notification procedures'' above except that the envelope should be clearly marked ''Privacy Act Amendment Request.'' The request for amendment of a record should: (1) Identify the system of records containing the record for which amendment is requested, (2) specify the portion of that record requested to be amended, and (3) describe the nature of and reasons for each requested amendment.

**RECORD SOURCE CATEGORIES:**

Information is provided by the individual to whom the record pertains and the Board's personnel records. Information regarding entry into and egress from Board premises or secured areas is obtained from use of the card to open the doors. Authorization for access to secured facilities on Board premises is provided by the Board official responsible for that secured facility.

**EXEMPTIONS CLAIMED FOR THE SYSTEM:**

None.

## BGFRS–35

**SYSTEM NAME:**

FRB—Staff Parking Permit File.

**SYSTEM LOCATION:**

Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

**CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:**

Past and present Board employees, consultants, visitors, and contractors who have applied for or been issued a parking permit for the Board's garages.

**CATEGORIES OF RECORDS IN THE SYSTEM:**

Completed parking application forms (FR 1103), disability parking applications, and contingency parking requests submitted by employees; unusual-work-demand permits and special contingency parking authorizations submitted by division directors; requests for parking for official visitors and contractors; notifications of lost permits; a listing of permit numbers assigned to car pools,

van pools, and individual employees; investigations made of compliance with the Board's parking regulations; and official actions taken as a result of violation of the Board's parking regulations.

**AUTHORITY FOR MAINTENANCE OF THE SYSTEM:**

Sections 10 and 11 of the Federal Reserve Act (12 U.S.C. 243 and 248).

**PURPOSE(S):**

These records are collected and maintained to allocate usage of the limited number of parking spaces in the Board's garages among Board staff, visitors and contractors, and to enforce the Board's parking regulations for safe use of the garages.

**ROUTINE USES OF RECORDS MAINTAINED IN THE SYSTEM, INCLUDING CATEGORIES OF USERS AND THE PURPOSES OF SUCH USES:**

General routine uses A, C, D, F, G, and I apply to this system. Records may also be used:

1. To investigate possible violations of the Board's parking regulations;
2. To determine eligibility for a parking permit; and
3. To determine eligibility for a public transit subsidy payment.

**POLICIES AND PRACTICES FOR STORING, RETRIEVING, ACCESSING, RETAINING, AND DISPOSING OF RECORDS IN THE SYSTEM:**

*Storage.* Records are stored in paper and electronic form.

*Retrievability.* Records can be retrieved by name of individual, parking permit number, employee identification number, or license tag number.

*Safeguards.* Access to records is limited to those whose official duties require it. Paper records are secured by lock and key and electronic records are password protected.

*Retention and disposal.* The retention and disposal period for these records is currently under review.

**SYSTEM MANAGER AND ADDRESS:**

Assistant Director, Management Division, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

**NOTIFICATION PROCEDURES:**

An individual desiring to learn of the existence of, or to gain access to, his or her record in this system of records shall submit a request in writing to the Secretary of the Board, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551. The request should contain: (1) A statement that it is made pursuant to the Privacy Act of 1974, (2) the name of the system of records expected to contain the record requested or a concise description of such system of records, (3) necessary information to verify the identity of the requester, and (4) any other information that may assist in the rapid identification of the record for which access is being requested.

**RECORD ACCESS PROCEDURES:**

Same as ''Notification procedures'' above.

**CONTESTING RECORD PROCEDURES:**

Same as ''Notification procedures'' above except that the envelope should be clearly marked ''Privacy Act Amendment Request.'' The request for amendment of a record should: (1) Identify the system of records containing the record for which amendment is requested, (2) specify the portion of that record requested to be amended, and (3) describe the nature of and reasons for each requested amendment.

**RECORD SOURCE CATEGORIES:**

Information is provided by the individual to whom the record pertains; parking permit applications, authorizations, and requests; and from written investigations of possible violations of the Board's parking regulations.

**EXEMPTIONS CLAIMED FOR THE SYSTEM:**

None.

## BGFRS–36

**SYSTEM NAME:**

FRB—Federal Reserve Application Name Check System.

**SYSTEM LOCATION:**

Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

**CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:**

Designated persons who are parties to regulatory applications, notices and/or proposals submitted to the Federal Reserve Board.

**CATEGORIES OF RECORDS IN THE SYSTEM:**

Name; social security, passport, or other identifying number, address; occupation, birth city, state, and country; country(ies) of citizenship; date of birth; names of related companies and the person's role at those companies; an indication whether each agency conducting a check had any information on the person and the results of the name check; and name and address of the financial institution that submitted the application with which the person was associated.

**AUTHORITY FOR MAINTENANCE OF THE SYSTEM:**

Sections 9, 19, 25 and 25A of the Federal Reserve Act (12 U.S.C. 321–328, 466, 601–604(a) and 611–631); the Change in Bank Control Act (12 U.S.C. 1817(j)); Section 18(c) of the Bank Merger Act (12 U.S.C. 1828(c)); Section 32 of the Federal Deposit Insurance Act (12 U.S.C. 1831i); Sections 3, 4, and 5 of the Bank Holding Company Act of 1956 (12 U.S.C. 1842, 1843 and 1844); Section 5 of the Bank Service Company Act (12 U.S.C. 1865); Sections 7, 8 and 10 of the International Banking Act (12 U.S.C. 3105, 3106 and 3107); the Board's Regulation H (12 CFR Part 208); the Board's Regulation K (12 CFR Part 211); the Board's Regulation L (12 CFR Part 212); the Board's Regulation Y (12 CFR Part 225); and Executive Order 9397.

**PURPOSE(S):**

These records are collected and maintained to assist the Board in evaluating the proposed officers, directors, principal shareholders, or other persons associated with a depository institution, holding company, or other foreign or domestic entity in connection with the Board's consideration of various regulatory applications, notices, or proposals. The Board uses these records, along with other information, to determine whether the related filing meets the statutory factors for approval.

**ROUTINE USES OF RECORDS MAINTAINED IN THE SYSTEM, INCLUDING CATEGORIES OF USERS AND THE PURPOSES OF SUCH USES:**

There are no routine uses that apply to the results of the name check. General routine uses A, B, C, D, G, and I apply to all other categories of information in the system. These records may also be used:

1. To disclose certain information to other Federal agencies to enable completion of the name check process related to a particular filing; and
2. To disclose certain information to other bank and thrift regulatory agencies pursuant to explicit information sharing agreements for regulatory comment purposes.

**POLICIES AND PRACTICES FOR STORING, RETRIEVING, ACCESSING, RETAINING, AND DISPOSING OF RECORDS IN THE SYSTEM:**

*Storage.* Records are stored in paper and electronic form.

*Retrievability.* Records are generally retrieved by an identification code internally assigned to each related filing or by the name of the financial institution involved in the related filing. However, records also can be retrieved by the name of the individual on whom they are maintained.

*Access Controls.* Access and use of these records is limited to those persons whose official duties require such access. Paper records are secured by lock and key and electronic records are password protected.

*Retention and disposal.* All records are retained for 15 years and destroyed when no longer needed for administrative or reference purposes.

**SYSTEM MANAGER AND ADDRESS:**

Deputy Associate Director, Division of Banking Supervision and Regulation, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

**NOTIFICATION PROCEDURES:**

An individual desiring to learn of the existence of, or to gain access to, his or her record in this system of records shall submit a request in writing to the Secretary of the Board, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551. The request should contain: (1) A statement that it is made pursuant to the Privacy Act of 1974, (2) the name of the system of records expected to contain the record requested or a concise description of such system of records, (3) necessary information to verify the identity of the requester, and (4) any other information that may assist in the rapid identification of the record for which access is being requested.

**RECORD ACCESS PROCEDURES:**

Same as ''Notification procedures'' above.

**CONTESTING RECORD PROCEDURES:**

Same as ''Notification procedures'' above except that the envelope should be clearly marked ''Privacy Act Amendment Request.'' The request for amendment of a record should: (1) Identify the system of records containing the record for which amendment is requested, (2) specify the portion of that record requested to be amended, and (3) describe the nature of and reasons for each requested amendment.

**RECORD SOURCE CATEGORIES:**

Information is provided by the individuals to whom the record pertains or their agents (such as law firms or consultants) during the regulatory application, notice, or proposal process. In addition, FRS staff, as part of the due diligence process associated with the review of a particular filing, performs name checks on the individuals to be involved in the business transaction related to such filings by contacting other Federal agencies for comments related to the identified individuals.

**EXEMPTIONS CLAIMED FOR THE SYSTEM:**

Certain portions of this system of records may be exempt from 5 U.S.C. 552a(c)(3), (d), (e)(1), (e)(4)(G), (H), and (I), and (f) of the Privacy Act pursuant to 5 U.S.C. 552a(k)(2).

## BGFRS/OIG–1

**SYSTEM NAME:**

FRB—OIG Investigative Records.

**SYSTEM LOCATION:**

Office of Inspector General, Board of Governors of the Federal Reserve System, 1709 New York Avenue, NW., Suite 3000, Washington, DC 20006.

**CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:**

Officers or employees of the Board or other persons involved in the Board's programs or operations who are or have been under investigation by the Board's Office of Inspector General in order to determine whether such officers, employees or other persons have been or are engaging in fraud and abuse with respect to the Board's programs or operations; and complainants and witnesses where necessary for future retrieval.

**CATEGORIES OF RECORDS IN THE SYSTEM:**

Individual investigations, including investigative reports and related documents generated during the course of or subsequent to an investigation; electronic and hard-copy case-tracking systems; databases containing investigatory information; ''Hotline'' telephone logs and investigator work papers; and memoranda and letter referrals to management or others.

**AUTHORITY FOR MAINTENANCE OF THE SYSTEM:**

Sections 4 and 6 of the Inspector General Act of 1978 (5 U.S.C. App. 4(a)(1) and 6(a)(2)).

**PURPOSE(S):**

These records are collected and maintained by the OIG in its inquiries and investigations and reports relating to the administration of the Board's programs and operations and to manage the investigatory program.

**ROUTINE USES OF RECORDS MAINTAINED IN THE SYSTEM, INCLUDING CATEGORIES OF USERS AND THE PURPOSES OF SUCH USES:**

General routine uses A, B, C, D, E, F, G and I apply to this system. Records may also be used:

1. To disclose information to other federal entities, such as other federal Offices of Inspector General or the General Accounting Office, or to a private party with which the OIG or the Board has contracted for the purpose of auditing or reviewing the performance or internal management of the OIG's investigatory program, provided the record will not be transferred in a form that is individually identifiable, and provided further that the entity acknowledges in writing that it is required to maintain Privacy Act safeguards for the information;

2. To disclose information to officials charged with the responsibility to conduct qualitative assessment reviews of internal safeguards and management procedures employed in investigative operations. This disclosure category consists of members of the Executive Council on Integrity and Efficiency (ECIE), the President's Council on Integrity and Efficiency (PCIE), and officials and administrative staff within their investigative chain of command authorized by the ECIE or PCIE to conduct or participate in such qualitative assessment reviews; and

3. To disclose information to any source, including a federal, state, or local agency maintaining civil, criminal, or other relevant enforcement information or other pertinent information, but only to the extent necessary for the OIG to obtain information relevant to an OIG investigation.

**POLICIES AND PRACTICES FOR STORING, RETRIEVING, ACCESSING, RETAINING, AND DISPOSING OF RECORDS IN THE SYSTEM:**

*Storage.* Records are stored in paper and electronic form.

*Retrievability.* Records can be retrieved by numerous identifiers, including the name of the individual under investigation, investigation number, referral number, or investigative subject matter.

*Access Controls.* Access to records is limited to those whose official duties require it. Paper records are secured by lock and key and electronic records are password protected.

*Retention and disposal.* All files are cut off annually and destroyed 10 years after cut off.

**SYSTEM MANAGER AND ADDRESS:**

Inspector General, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

**NOTIFICATION PROCEDURES:**

An individual desiring to learn the existence of, or to gain access to, his or her record in this system of records shall submit a request in writing to the Inspector General, Board of Governors of the Federal Reserve System, 20th

Street and Constitution Avenue, NW., Washington, DC 20551. The request should contain: (1) A statement that it is made pursuant to the Privacy Act of 1974, (2) the name of the system of records expected to contain the record requested or a concise description of such system of records, (3) necessary information to verify the identity of the requester, and (4) any other information that may assist in the rapid identification of the record for which access is being requested.

**RECORD ACCESS PROCEDURES:**

Same as ''Notification procedures'' above.

**CONTESTING RECORD PROCEDURES:**

Same as ''Notification procedures'' above except that the envelope should be clearly marked ''Privacy Act Amendment Request.'' The request for amendment of a record should: (1) Identify the system of records containing the record for which amendment is requested, (2) specify the portion of that record requested to be amended, and (3) describe the nature of and reasons for each requested amendment.

**RECORD SOURCE CATEGORIES:**

Information is provided by the individual to whom the record pertains, employees of the Board and the Federal Reserve System, other government employees, witnesses and informants, and nongovernmental sources.

**EXEMPTIONS CLAIMED FOR THE SYSTEM:**

This system is exempt from any part of the Privacy Act, 5 U.S.C. 552a, except 5 U.S.C. 552a(b), (c)(1) and (2), (e)(4)(A) through (F), (e)(6), (7), (9), (10), and (11), and (i) pursuant to 5 U.S.C. 552a(j)(2). Additionally, certain portions of this system of records may be exempt from 5 U.S.C. 552a(c)(3), (d), (e)(1), (e)(4)(G), (H), and (I), and (f) of the Privacy Act pursuant to 5 U.S.C. 552a(k)(2) and (k)(5).

## BGFRS/OIG–2

**SYSTEM NAME:**

OIG Personnel Records.

**SYSTEM LOCATION:**

Office of Inspector General, Board of Governors of the Federal Reserve System, 1709 New York Avenue, NW., Suite 3000, Washington, DC 20006.

**CATEGORIES OF INDIVIDUALS COVERED BY THE SYSTEM:**

Persons who have applied for employment with the Federal Reserve Board's Office of Inspector General.

**CATEGORIES OF RECORDS IN THE SYSTEM:**

Information relating to the education, training, employment history and earnings; appraisal of past performance; convictions for offenses against the law; results of tests, appraisals of potential, honors, awards of fellowships; military service or veteran status; school transcripts; work samples; birth date; Social Security number; travel vouchers; offer letters and correspondence, reference checks; and home address of past, present and prospective employees of the OIG. Includes allocations of time spent on various OIG projects and tasks (OIG Time Entry System) and related documents and reports generated by the Time Entry System.

**AUTHORITY FOR MAINTENANCE OF THE SYSTEM:**

Section 8E of the Inspector General Act of 1978 and section 11 of the Federal Reserve Act (5 U.S.C. App. 8E(g)(2) and 12 U.S.C. 248(l)), and Executive Order 9397.

**PURPOSE(S):**

These records are collected and maintained to assist the OIG in making determinations regarding hiring, retention, promotion, and performance-evaluation decisions.

**ROUTINE USES OF RECORDS MAINTAINED IN THE SYSTEM, INCLUDING CATEGORIES OF USERS AND PURPOSES OF SUCH USE:**

General routine uses A, B, C, D, E, F, G and I apply to this system. Records may also be used:

1. To disclose information to intelligence agencies of the United States, including the Department of Defense, National Security Agency, Central Intelligence Agency, and the Federal Bureau of Investigation for use in intelligence activities;

2. To disclose information to any source from which information is requested by the Board in the course of an investigation, to the extent necessary to identify the individual, inform the course of the nature and purpose of the investigation, and to identify the type of information requested;

3. To disclose information in producing summary descriptive statistics and analytical studies to support the function for which the records are collected and maintained, or for related work force studies (While published statistics and studies do not contain individual identifiers, in some instances the selection of elements of data included in the study may be structured in such a way as to make the data individually identifiable by inference.);

4. To disclose information to other federal entities, such as other federal offices of inspector general or the General Accounting Office, or to a private party with which the OIG or the Board has contracted for the purpose of auditing or reviewing the performance or internal management of the OIG, provided the record will not be transferred in a form that is individually identifiable, and provided further that the entity acknowledges in writing that it is required to maintain Privacy Act safeguards for the information; and

5. To disclose information to officials charged with the responsibility to conduct qualitative assessment reviews of internal safeguards and management procedures. This disclosure category consists of members of the Executive Council on Integrity and Efficiency (ECIE), the President's Council on Integrity and Efficiency (PCIE), and officials and administrative staff authorized by the ECIE or PCIE to conduct or participate in such qualitative assessment reviews.

**POLICIES AND PRACTICES FOR STORING, RETRIEVING, ACCESSING, RETAINING AND DISPOSING OF RECORDS IN THE SYSTEM:**

*Storage.* Records are stored in paper and electronic form.

*Retrievability.* Records may be retrieved by a variety of personal-identification means (including by Social Security number, employee number, room number) and project or assignment codes.

*Access Controls.* Access to records is limited to those whose official duties require it. Paper records are secured by lock and key and electronic records are password protected.

*Retention and disposal.* All other records are retained for the appropriate period which ranges from no retention period to one year after separation or transfer.

**SYSTEM MANAGER AND ADDRESS:**

Inspector General, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551.

**NOTIFICATION PROCEDURE:**

An individual desiring to learn the existence of, or to gain access to, his or her record in this system of records shall submit a request in writing to the Inspector General, Board of Governors of the Federal Reserve System, 20th Street and Constitution Avenue, NW., Washington, DC 20551. The request should contain: (1) A statement that it is made pursuant to the Privacy Act of 1974, (2) the name of the system of records expected to contain the record requested or a concise description of such system of records, (3) necessary

information to verify the identity of the requester, and (4) any other information that may assist in the rapid identification of the record for which access is being requested.

**RECORD ACCESS PROCEDURES:**

Same as ''Notification procedures'' above.

**CONTESTING RECORD PROCEDURE:**

Same as ''Notification procedures'' above except that the envelope should be clearly marked ''Privacy Act Amendment Request.'' The request for amendment of a record should: (1) Identify the system of records containing the record for which amendment is requested, (2) specify the portion of that record requested to be amended, and (3) describe the nature of and reasons for each requested amendment.

**RECORD SOURCE CATEGORIES:**

Information is provided by the individual to whom the record pertains, employees of the Board and the Federal Reserve System, other government employees, and witnesses and informants.

**EXEMPTIONS CLAIMED FOR THE SYSTEM:**

Certain portions of this system of records may be exempt from 5 U.S.C. 552a(c)(3), (d), (e)(1), (e)(4)(G), (H), and (I), and (f) of the Privacy Act pursuant to 5 U.S.C. 552a(k)(5).

By order of the Board of Governors of the Federal Reserve System, April 30, 2008.

**Jennifer J. Johnson,**

*Secretary of the Board.*

[FR Doc. E8–9926 Filed 5–5–08; 8:45 am]

**BILLING CODE 6210–01–P**

## FEDERAL TRADE COMMISSION

### Granting of Request for Early Termination of the Waiting Period Under the Premerger Notification Rules

Section 7A of the Clayton Act, 15 U.S.C. 18a, as added by Title II of the Hart-Scott-Rodino Antitrust Improvements Act of 1976, requires persons contemplating certain mergers or acquisitions to give the Federal Trade Commission and the Assistant Attorney General advance notice and to wait designated periods before consummation of such plans. Section 7A(b)(2) of the Act permits the agencies, in individual cases, to terminate this waiting period prior to its expiration and requires that notice of this action be published in the **Federal Register**.

The following transactions were granted early termination of the waiting period provided by law and the premerger notification rules. The grants were made by the Federal Trade Commission and the Assistant Attorney General for the Antitrust Division of the Department of Justice. Neither agency intends to take any action with respect to these proposed acquisitions during the applicable waiting period.

| Trans No. | Acquiring | Acquired | Entities |
|---|---|---|---|
| **TRANSACTIONS GRANTED EARLY TERMINATION—03/31/2008** | | | |
| 20080956 | Allion Healthcare, Inc | Raymond A. Mirra, Jr | Biomed America, Inc. |
| 20080963 | Nikos Hecht | Movie Gallery, Inc | Movie Gallery, Inc. |
| 20080965 | SXC Health Solutiions Corp | New Mountain Partners LP | National Medical Health CardSystems, Inc. |
| 20080966 | BMC Software, Inc | BladeLogic, Inc | BladeLogic, Inc. |
| **TRANSACTIONS GRANTED EARLY TERMINATION—04/01/2008** | | | |
| 20080920 | Welsh, Carson, Anderson & Stowe IX, L.P. | Franck Gougeon | AGA Medical Holdings, Inc. |
| 20080957 | JP Morgan Chase & Co | The Bear Stearns Companies Inc | The Bear Stearns Companies Inc. |
| **TRANSACTIONS GRANTED EARLY TERMINATION—04/02/2008** | | | |
| 20080896 | Parker Hannifin Corporation | HTR Holding Corp | HTR Holding Corp. |
| **TRANSACTIONS GRANTED EARLY TERMINATION—04/04/2008** | | | |
| 20080868 | TerreStar Corporation | CCIV Wireless I, LLC | CCIV Wireless I, LLC. |
| 20080882 | Complete Production Services, Inc | Frac Source, Inc | Frac Source Services, Inc. |
| 20080967 | Elliott Associates, L.P | Packeteer, Inc | Packeteer, Inc. |
| 20080968 | Deseret Management Corporation | Radio One, Inc | Radio One, Inc., Radio One Licenses, LLC. |
| 20080971 | Ares Partners Management Company LLC. | Ares Capital Corporation | Ares Capital Corporation. |
| 20080972 | Mountain America Federal Credit Union | Salt Lake Credit Union | Salt Lake Credit Union. |
| 20080980 | Alternative Asset Management Acquisition Corp. | Halcyon Partners LP | Halcyon Management Group LLC. |
| 20080981 | Palisades Safety and Insurance Association. | National Atlantic Holdings Corporation | National Atlantic Holdings Corporation. |
| **TRANSACTIONS GRANTED EARLY TERMINATION—04/07/2008** | | | |
| 20071012 | ABRY Broadcast Partners III, L.P | R. Steven Hicks | DMX Holdings, Inc. |
| **TRANSACTIONS GRANTED EARLY TERMINATION—04/08/2008** | | | |
| 20080948 | Union Street Acquisition Corp | CGW Southeast Partners IV, L.P | Archway Marketing Services, Inc. |
| 20080949 | Smiths Group plc | Fiberod Industries, LLC | Fiberod Industries, LLC. |
| 20080951 | The Royal Bank of Scotland Group plc | RFS Holdings B.V | RFS Holdings B.V. |
| 20080964 | Mindray Medical International Limited | Datascope Corporation | Datascope Corporation. |

| Trans No. | Acquiring | Acquired | Entities |
|---|---|---|---|
| 20080979 | Vicat, S.A | William Douglas Walker | Walker Concrete Company, Inc.<br>Walker Construction Products, Inc. |
| **TRANSACTIONS GRANTED EARLY TERMINATION—04/10/2008** | | | |
| 20080921 | Tom L. Ward | SandRidge Energy, Inc | SandRidge Energy, Inc. |
| 20080970 | WellPoint, Inc | Trident Capital Fund-V, LP | Resolution Health, Inc. |
| **TRANSACTIONS GRANTED EARLY TERMINATION—04/11/2008** | | | |
| 20080952 | Schneider Electric SA | George O. McDaniel III | ECP Tech Services, Inc. |
| 20080985 | Centene Corporation | Celtic Capital | Celtic Group, Inc. |
| 20080993 | Walgreen Co | I-trax, Inc | I-trax, Inc. |
| 20080994 | Aurora Equity Partners III LP | NuCO2 Inc | NuCO2 Inc. |
| 20080996 | Reyes Holdings, L.L.C | Ron L. Fowler | Mesa Distributing Co., Inc. |
| 20081005 | Cortec Group Fund IV, L.P | E&B Giftware Holdings, LLC | E&B Giftware LLC. |
| 20081005 | Humana Inc | OSF Healthcare System | OSF Health Plans, Inc. |
| **TRANSACTIONS GRANTED EARLY TERMINATION—04/14/2008** | | | |
| 20080941 | Welsh, Carson, Anderson & Stowe X, L.P. | Local Insight Regatta Holdings, Inc | Local Insight Regatta Holdings, Inc. |
| 20080942 | Local Insight Regatta Holdings, Inc | Welsh, Carson, Anderson & Stowe X, L.P. | Local Insight Media, L.P. |
| 20080943 | Welsh, Carson, Anderson & Stowe IX, L.P. | Superholdco | Superholdco. |
| 20080944 | Welsh, Carson, Anderson & Stowe VIII, L.P. | Superholdco | Superholdco. |
| 20080960 | C. R. Bard, Inc | Specialized Healthcare Products International, Inc. | Specialized Healthcare Products International, Inc. |
| **TRANSACTIONS GRANTED EARLY TERMINATION—04/15/2008** | | | |
| 20081009 | Accretive II, LP | AlphaStaff Group, Inc | AlphaStaff Group, Inc. |
| **TRANSACTIONS GRANTED EARLY TERMINATION—04/16/2008** | | | |
| 20080990 | Baker Brothers Life Sciences, L.P | Genomic Health Inc | Genomic Health Inc. |
| 20081015 | Wells Fargo & Company | The Toronto-Dominion Bank | Flatiron Credit Company, Inc. |
| **TRANSACTIONS GRANTED EARLY TERMINATION—04/17/2008** | | | |
| 20081014 | O'Reilly Automotive, Inc | CSK Auto Corporation | CSK Auto Corporation. |

**FOR FURTHER INFORMATION CONTACT:** Sandra M. Peay, Contact Representative, or Renee Hallman, Contact Representative. Federal Trade Commission, Premerger Notification Office, Bureau of Competition, Room H–303, Washington, DC 20580, (202) 326–3100.

By direction of the Commission.

**Donald S. Clark,**

*Secretary.*

[FR Doc. E8–9754 Filed 5–5–08; 8:45 am]

**BILLING CODE 6750–01–M**

## DEPARTMENT OF HEALTH AND HUMAN SERVICES

### Office of the Secretary

### Findings of Scientific Misconduct

**AGENCY:** Office of the Secretary, HHS.

**ACTION:** Notice.

**SUMMARY:** Notice is hereby given that the Office of Research Integrity (ORI) and the Assistant Secretary for Health have taken final action in the following case:

*Lois Bartsch, Ph.D., University of Nebraska Medical Center:* Based on the report of an investigation conducted by the University of Nebraska Medical Center (UNMC) and additional analysis conducted by the Office of Research Integrity (ORI) during its oversight review, the U.S. Public Health Service (PHS) found that Lois Bartsch, Ph.D., former postdoctoral research trainee, Department of Genetics, Cell Biology, and Anatomy, UNMC, engaged in scientific misconduct in research supported by National Cancer Institute (NCI), National Institutes of Health (NIH), grants P30 CA36727 and R01 CA77876 and National Center for Research Resources (NCRR), NIH, grant P20 RR016469.

Specifically, PHS found that Dr. Bartsch:

- Falsified DNA sequence files by deleting a nucleotide and changing nucleotide designations and reported the altered file as the ACI rat *p16Cdkn2a* sequence with a CpG dinucleotide polymorphism in the upstream region to GenBank, in grant application CA118151, and in the poster presented to Cold Spring Harbor Laboratory (CSHL);
- Fabricated the claim in grant application CA118151 that GenBank entries for the human *p16Cdkn2a* gene had a CpG polymorphism near the transcription start site;
- Falsified the differential methylation of CpG dinucleotides near the transcription start site of *p16Cdkn2a* DNA and reported that tumor tissue was more methylated than normal tissue in ACI rats treated with estrogen and that the ACI allele was more methylated than the BN allele in tumor tissue from $(BN \times ACI)F_1$ animals treated with estrogen in grant application CA118151.

Dr. Bartsch has entered into a Voluntary Exclusion Agreement (Agreement) in which she neither admits nor denies ORI's finding of scientific misconduct; the settlement is not an admission of liability on the part of the respondent. In accordance with the terms of the Agreement, she has voluntarily agreed, beginning on April 15, 2008:

(1) To exclude herself from any contracting or subcontracting with any agency of the United States Government and from eligibility or involvement in nonprocurement programs of the United States Government referred to as ''covered transactions'' pursuant to HHS' Implementation (2 CFR Part 376 *et seq.*) of OMB Guidelines to Agencies on Government-wide Debarment and Suspension (2 CFR Part 180) for a period of two (2) years; and

(2) To exclude herself permanently from serving in any advisory capacity to PHS, including but not limited to service on any PHS advisory committee, board, and/or peer review committee, or as a consultant or contractor to PHS for a period of three (3) years.

**FOR FURTHER INFORMATION CONTACT:** Director, Division of Investigative Oversight, Office of Research Integrity, 1101 Wootton Parkway, Suite 750, Rockville, MD 20852 (240) 453–8800.

**Chris B. Pascal,**

*Director, Office of Research Integrity.*

[FR Doc. E8–9858 Filed 5–5–08; 8:45 am]

**BILLING CODE 4150–31–P**

## DEPARTMENT OF HEALTH AND HUMAN SERVICES

### Administration for Children and Families

### Statement of Organization, Functions and Delegation of Authority

Notice is hereby given that I have delegated to the Principal Deputy Assistant Secretary, Deputy Assistant Secretaries, Program Directors, Program Commissioners, Deputy Director/Commissioner, Office of Child Support Enforcement, and Staff Office Directors the following authority vested in me by the Secretary of Health and Human Services in the memorandum dated August 20, 1991, Delegations of Authority for Social Security Act Programs; 31 U.S.C. 1535; and HHS General Administrative Manual, Chapter 8–77.

(a) *Authorities Delegated.*

1. Authority to administer approved cooperative research, experimental, pilot or demonstration projects under the provisions of sections 1110 and 1115 of the Social Security Act.

2. Authority to approve interagency agreements to procure, provide or exchange services, supplies or equipment.

(b) *Limitations.*

1. The authority listed in #1 above shall be exercised under the condition that projects may be approved and administered by the Office of Planning, Research and Evaluation (OPRE), by the program/staff office or jointly by OPRE with the program/staff office.

2. Where all or any part of an experimental, pilot, demonstration, or other project is wholly financed with Federal funds made available under sections 1110 or 1115 of the Social Security Act, without any State, local or other non-Federal financial participation, that project must be approved by the Secretary of Health and Human Services.

3. This delegation of authority does not include the authority to approve/disapprove projects under section 1115 of the Social Security Act or approve/disapprove waivers of State Plan requirements or costs that would not otherwise be included as expenditures under the provisions of sections 1115(a)(1) and (2) of the Social Security Act.

4. The authority to approve interagency agreements to procure, provide, or exchange services, supplies, or equipment requires the concurrence of the ACF Chief Financial Officer if it exceeds $250,000 (including amendments) within a fiscal year or if it requires the signature of the Assistant Secretary, ACF, or the Secretary of HHS.

(c) *Effective Date.*

This delegation is effective upon the date of signature.

(d) *Effect on Existing Delegations.*

As related to this delegation of authority, this delegation supersedes all previous delegations of authority involving the administration of the cross-program authorities delegated herein.

I hereby ratify and affirm any actions taken by the Principal Deputy Assistant Secretary, Deputy Assistant Secretaries, Program Directors, Program Commissioners, Deputy Director/Commissioner, Office of Child Support Enforcement, and Staff Office Directors, which involved the exercise of the authority delegated herein prior to the effective date of this delegation.

Dated: April 22, 2008.

**Daniel C. Schneider,**

*Assistant Secretary for Children and Families.*

[FR Doc. E8–9898 Filed 5–5–08; 8:45 am]

**BILLING CODE 4184–01–P**

## DEPARTMENT OF HEALTH AND HUMAN SERVICES

### Food and Drug Administration

**[Docket No. FDA–2008–N–0259]**

### Agency Information Collection Activities: Proposed Collection; Comment Request; Guidance for Industry: Fast Track Drug Development Programs: Designation, Development, and Application Review

**AGENCY:** Food and Drug Administration, HHS.

**ACTION:** Notice.

**SUMMARY:** The Food and Drug Administration (FDA) is announcing an opportunity for public comment on the proposed collection of certain information by the agency. 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 of an existing collection of information, and to allow 60 days for public comment in response to the notice. This notice solicits comments on the proposed collection of information concerning requests by sponsors of investigational new drugs and applicants for new drug approvals or biologics licenses for fast track designation as provided in the guidance for industry on fast track drug development programs.

**DATES:** Submit written or electronic comments on the collection of information by July 7, 2008.

**ADDRESSES:** Submit electronic comments on the collection of information to *http://www.regulations.gov*. Submit written comments on the collection of information to the Division of Dockets Management (HFA–305), Food and Drug Administration, 5630 Fishers Lane, rm. 1061, Rockville, MD 20852. All comments should be identified with the docket number found in brackets in the heading of this document.

**FOR FURTHER INFORMATION CONTACT:** Elizabeth Berbakos, Office of the Chief Information Officer (HFA–250), Food and Drug Administration, 5600 Fishers Lane, Rockville, MD 20857, 301–827–1482.

**SUPPLEMENTARY INFORMATION:** 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. ''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 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, FDA is publishing notice of the proposed collection of information set forth in this document.

With respect to the following collection of information, FDA invites comment on these topics: (1) Whether the proposed collection of information is necessary for the proper performance of FDA's functions, including whether the information will have practical utility; (2) the accuracy of FDA'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 respondents, including through the use of automated collection techniques, when appropriate, and other forms of information technology.

**Guidance for Industry: Fast Track Drug Development Programs: Designation, Development, and Application Review (OMB Control Number 0910–0389)—Extension**

Section 112(a) of the Food and Drug Administration Modernization Act of 1997 (FDAMA) (Pub. L. 105–115) amended the Federal Food, Drug, and Cosmetic Act (the act) by adding section 506 (21 U.S.C. 356). The section authorizes FDA to take appropriate action to facilitate the development and expedite the review of new drugs, including biological products, intended to treat a serious or life-threatening condition and that demonstrate a potential to address an unmet medical need. Under FDAMA section 112(b), FDA issued guidance to industry on fast track policies and procedures outlined in section 506 of the act. The guidance discusses collections of information that are specified under section 506 of the act, other sections of the Public Health Service Act (the PHS Act), or implementing regulations. The guidance describes three general areas involving collection of information: (1) Fast track designation requests, (2) premeeting packages, and (3) requests to submit portions of an application. Of these, fast track designation requests and premeeting packages, in support of receiving a fast track program benefit, provide for additional collections of information not covered elsewhere in statute or regulation. Information in support of fast track designation or fast track program benefits that has previously been submitted to the agency, may, in some cases, be incorporated into the request by referring to the information rather than resubmitting it.

Under section 506(a)(1) of the act, an applicant who seeks fast track designation is required to submit a request to the agency showing that the product: (1) Is intended for a serious or life-threatening condition; and (2) the product has the potential to address an unmet medical need. Mostly, the agency expects that information to support a designation request will have been gathered under existing provisions of the act, the PHS Act, or the implementing regulations. If such information has already been submitted to the agency, the information may be summarized in the fast track designation request. The guidance recommends that a designation request include, where applicable, additional information not specified elsewhere by statute or regulation. For example, additional information may be needed to show that a product has the potential to address an unmet medical need where an approved therapy exists for the serious or life-threatening condition to be treated. Such information may include clinical data, published reports, summaries of data and reports, and a list of references. The amount of information and discussion in a designation request need not be voluminous, but it should be sufficient to permit a reviewer to assess whether the criteria for fast track designation have been met.

After the agency makes a fast track designation, a sponsor or applicant may submit a premeeting package which may include additional information supporting a request to participate in certain fast track programs. The premeeting package serves as background information for the meeting and should support the intended objectives of the meeting. As with the request for fast track designation, the agency expects that most sponsors or applicants will have gathered such information to meet existing requirements under the act, the PHS Act, or implementing regulations. These may include descriptions of clinical safety and efficacy trials not conducted under an investigational new drug application (i.e., foreign studies), and information to support a request for accelerated approval. If such information has already been submitted to FDA, the information may be summarized in the premeeting package. Consequently, FDA anticipates that the additional collection of information attributed solely to the guidance will be minimal.

Under section 506(c) of the act, a sponsor must submit sufficient clinical data for the agency to determine, after preliminary evaluation, that a fast track product may be effective. Section 506(c) also requires that an applicant provide a schedule for the submission of information necessary to make the application complete before FDA can commence its review. The guidance does not provide for any new collection of information regarding the submission of portions of an application that is not required under section 506(c) of the act or any other provision of the act. All forms referred to in the guidance have a current OMB approval: FDA Forms 1571 (OMB Control No. 0910–0014); 356h (OMB Control No. 0910–0338); and 3397 (OMB Control No. 0910–0297).

Respondents to this information collection are sponsors and applicants who seek fast track designation under section 506 of the act. The agency estimates the total annual number of respondents submitting requests for fast track designation to the Center for Biologics Evaluation and Research and the Center for Drug Evaluation and Research is approximately 64, and the number of requests received is approximately 77 annually. FDA estimates that the number of hours needed to prepare a request for fast track designation is approximately 60 hours per request.

Not all requests for fast track designation may meet the statutory standard. Of the requests for fast track designation made per year, the agency granted 60 from 54 respondents, and for each of these granted requests a premeeting package was submitted to the agency. FDA estimates that the preparation hours are approximately 100 hours per premeeting package.

FDA estimates the burden of this collection of information as follows:

TABLE 1.—ESTIMATED ANNUAL REPORTING BURDEN[1]

| Reporting Activity | No. of Respondents | Annual Frequency per Response | Total Annual Responses | Hours per Response | Total Hours |
|---|---|---|---|---|---|
| Designation Request | 64 | 1.28 | 77 | 60 | 4,620 |
| Premeeting Packages | 54 | 1.11 | 60 | 100 | 6,000 |
| Total | | | | | 10,620 |

[1] There are no capital costs or operating and maintenance costs associated with this collection of information.

Please note that on January 15, 2008, the FDA Division of Dockets Management Web site transitioned to the Federal Dockets Management System (FDMS). FDMS is a Government-wide, electronic docket management system. Electronic comments or submissions will be accepted by FDA only through FDMS at *http://www.regulations.gov*.

Dated: April 29, 2008.

**Jeffrey Shuren,**

*Associate Commissioner for Policy and Planning.*

[FR Doc. E8–9882 Filed 5–5–08; 8:45 am]

**BILLING CODE 4160–01–S**

## DEPARTMENT OF HEALTH AND HUMAN SERVICES

### National Institutes of Health

### Government-Owned Inventions; Availability for Licensing

**AGENCY:** National Institutes of Health, Public Health Service, HHS.

**ACTION:** Notice.

**SUMMARY:** The inventions listed below are owned by an agency of the U.S. Government and are available for licensing in the U.S. in accordance with 35 U.S.C. 207 to achieve expeditious commercialization of results of federally-funded research and development. Foreign patent applications are filed on selected inventions to extend market coverage for companies and may also be available for licensing.

**ADDRESSES:** Licensing information and copies of the U.S. patent applications listed below may be obtained by writing to the indicated licensing contact at the Office of Technology Transfer, National Institutes of Health, 6011 Executive Boulevard, Suite 325, Rockville, Maryland 20852–3804; telephone: 301–496–7057; fax: 301–402–0220. A signed Confidential Disclosure Agreement will be required to receive copies of the patent applications.

**Human Papillomavirus microRNA Diagnostics and Therapeutics**

*Description of Technology:* Available for licensing and commercial development are patent rights that cover the uses of a p53 specific microRNA (miRNA). It has been reported that the tumor suppressive mRNA miR–34a (a downstream target of p53) is downregulated in HPV-infected primary keratinocytes. miR–34a arrests the cell cycle at G2 phase and promotes apoptosis. Therapeutic restoration of normal expression levels of miR–34a and/or simultaneous stabilization of p53 (inhibited by HPV E6) induces miR–34a accumulation in G0/G1 phase and can arrest tumor growth. Neoplasia and cancer cell progression has also been associated with p18Ink4c overexpression which can be regulated with the introduction of a therapeutic amount of miR–34a. Tumor reduction/suppression by down regulating p18Ink4c is also a therapeutic benefit provided by this invention.

*Applications:* Cervical cancer; Human papillomavirus; Therapeutics.

*Inventors:* Zhi-Ming Zheng and Xiaohong Wang (NCI).

*Publications:*

1. WO Lui *et al.* Patterns of known and novel small RNAs in human cervical cancer. Cancer Res. 2007 Jul 1;67(13):6031–6043.
2. I Martinez *et al.* Human papillomavirus type 16 reduces the expression of microRNA–218 in cervical carcinoma cells. Oncogene 2007 Nov 12; Advance online publication, doi:10.1038/sj.onc.1210919.

*Patent Status:*

U.S. Provisional Application No. 60/983,368 filed 29 Oct 2007 (HHS Reference No. E–029–2008/0–US–01).

U.S. Provisional Application No. 61/041,842 filed 02 Apr 2008 (HHS Reference No. E–029–2008/1–US–01).

*Licensing Status:* Available for licensing.

*Licensing Contact:* Michael A. Shmilovich, Esq.; 301–435–5019; *shmilovm@mail.nih.gov*.

*Collaborative Research Opportunity:* The National Cancer Institute HIV and AIDS Malignancy Branch is seeking statements of capability or interest from parties interested in collaborative research to further develop, evaluate, or commercialize HPV-induced aberrant expression of microRNAs for cervical cancer diagnostics and therapeutics. Please contact John D. Hewes, PhD at 301–435–3121 or *hewesj@mail.nih.gov* for more information.

**Microarray Binding Sensors Using Carbon Nanotube Transistors**

*Description of Technology:* Available for licensing and commercial development are: (a) An apparatus containing microarray binding sensors having biological probe materials and carbon nanotube transistors (CNTs) and (b) various methods of using the highly sensitive CNTs for the electronic detection of nucleic acid hybridization for performing microarray gene expression experiments and detection of DNA–DNA, DNA–RNA, Peptide Nucleic Acid (PNA) –DNA, PNA–RNA, DNA-protein or PNA-protein binding. By analogy to the microarray concept, each transistor is associated with a distinct probe oligonucleotide. Each transistor is operated as a field effect transistor (FET) and the transconductance between the source and drain electrodes is measured before and after a hybridization event. The expected advantages are, besides higher sensitivity and ease of use, the elimination of chemical labeling and enzymatic manipulation and the further miniaturization. The unique distinction of this design over other CNT-based biomolecular sensing schemes is the complete isolation of the CNTs from chemical reactions concomitant with probe immobilization and target capture, and the CNTs functioning only as charge sensors. In contrast, current methods rely on enzymatic amplification of nucleic acids, fluorescent labeled targets, hybridization, amplification of signal and detection by optical scanners, which are time consuming and have limited sensitivity.

*Applications:* The apparatus and method can be used for numerous applications, among them: High-throughput monitoring of genome-wide

DNA, mRNA copy number changes; sequencing of DNA; miRNA levels in cancer; or identifying targets of transcription factors.

Furthermore, given the intensity of effort in linking gene expression with diseases, it is only a matter of time before diagnosis and prognosis of certain ailments can be performed on the basis of gene expression. At the present, most such analyses require costly apparatus and labor-intensive laboratory procedures.

*Development Status:* In the process of developing prototypes.

*Inventors:* Javed Khan (NCI) *et al.*

*Publications:*

1. H Pandana, KH Aschenbach, D Lenski, M Fuhrer, J Khan, RD Gomez. A versatile biomolecular charge based sensor using oxide-gated carbon nanotube transistor arrays. IEEE Sens J., Special Issue, July 2008, in press.

2. K Aschenbach, H Pandana, J Lee, J Khan, M Fuhrer, D Lenski, RD Gomez. Detection of nucleic acid hybridization via oxide gated carbon nanotube field effect transistors (invited). Proceedings of SPIE MEMS and Nanotechnologies, Volume 6959 (2008), in press.

*Patent Status:*

U.S. Patent Application No. 60/743,524 filed 17 Mar 2006 (HHS Reference No. E–056–2007/0–US–01).

PCT Application No. PCT/US2007/06809 filed 19 Mar 2007, which published as WO 2007/109228 on 27 Sep 2007 (HHS Reference No. E–056–2007/0–PCT–02).

U.S. Patent Application No. 11/723,369 filed 19 Mar 2007 (HHS Reference No. E–056–2007/0–US–03).

*Licensing Status:* Available for non-exclusive or exclusive licensing.

*Licensing Contact:* Cristina Thalhammer-Reyero, Ph.D., M.B.A.; 301–435–4507; *thalhamc@mail.nih.gov*.

*Collaborative Research Opportunity:* The Oncogenomics Section, Center for Cancer Research, National Cancer Institute, is seeking statements of capability or interest from parties interested in collaborative research to further develop, evaluate, or commercialize electrical detection of nucleic acid and protein levels. Please contact Javed Khan, M.D. at 301–435–2937 or *khanjav@mail.nih.gov* for more information.

**Segmenting Colon Wall Via Level Set Techniques**

*Description of Technology:* Virtual Colonoscopy (VC) has become a more prevalent and accepted method of colorectal cancer diagnosis. An essential element for detecting cancerous polyps using VC, in conjunction with computer-aided detection, is the accurate segmentation of the colon wall. While the inner boundary of the colon wall, the lumen-mucosal boundary, has often been the focus of previous segmentation work, detection of the outer wall, the serosal tissue boundary, allows for the segmentation of the colon wall, which is useful in determining potential polyps, muscular hypertrophy, and diverticulitis of the colon. Unfortunately, automatic determination of the outer colon wall position often is difficult due to the low contrast between CT attenuation values of the colon wall and the surrounding fat tissue. This invention is a level set based method to determine, from a CT colonography (CTC) scan, the location of the colon serosal tissue boundary. After determining this location, the algorithm segments the entire colon wall at subvoxel accurate precision.

In this algorithm, the loops in the colon caused by over-distention are detected and removed when the centerline calculation is performed. Also, a newly developed method for the detection and segmentation of the outer wall of the colon is used to connect collapsed portions where the lumen segmentation failed to produce a connected centerline. These two methods allow for a complete and accurate centerline to be calculated in uniformly distended colons as well as colons containing segments which are over and/or under-distended.

*Applications:* Diagnostics.

*Inventors:* Robert L. Van Uitert, Ronald M. Summers, Ingmar Bitter (CC).

*Publications:*

1. R Van Uitert, I Bitter. Subvoxel precise skeletons of volumetric data based on fast marching methods. Med Phys. 2007 Feb;34(2):627–638.

2. RL Van Uitert, RM Summers. Automatic correction of level set based subvoxel precise centerlines for virtual colonoscopy using the colon outer wall. IEEE Trans Med Imaging. 2007 Aug;26(8):1069–1078.

3. RM Summers, J Yao, PJ Pickhardt, M Franaszek, I Bitter, D Brickman, V Krishna, JR Choi. Computed tomographic virtual colonoscopy computer-aided polyp detection in a screening population. Gastroenterology. 2005 Dec;129(6):1832–1844.

4. R Van Uitert, I Bitter, RM Summers, JR Choi, PJ Pickhardt. Quantitative assessment of colon distention for polyp detection in CT virtual colonoscopy. Proc SPIE Int Soc Opt Eng. (2006) 6143,61431B:451–457; published online 13 Mar 2006, doi 10.1117/12.653205.

5. R Van Uitert, I Bitter, RM Summers. Detection of colon wall outer boundary and segmentation of the colon wall based on level set methods. Conf Proc IEEE Eng Med Biol Soc. 2006;1:3017–3020.

6. G Iordanescu, RM Summers. Benefits of centerline analysis for CT colonography computer-aided polyp detection. Proc SPIE Int Soc Opt Eng. (2003) 5031:388–397; published online 02 May 2003, doi:10.1117/12.485797.

7. G Iordanescu, RM Summers. Automated centerline for computed tomography colonography. Acad Radiol. 2003 Nov;10(11):1291–1301.

*Patent Status:* U.S. Patent Application No. 11/810,704 filed 05 Jun 2007 (HHS Reference No. E–298–2006/0–US–01).

*Licensing Status:* Available for licensing.

*Licensing Contact:* Michael A. Shmilovich, Esq.; 301–435–5019; *shmilovm@mail.nih.gov*.

Dated: April 28, 2008.

**Steven M. Ferguson,**

*Director, Division of Technology Development and Transfer, Office of Technology Transfer, National Institutes of Health.*

[FR Doc. E8–9871 Filed 5–5–08; 8:45 am]

BILLING CODE 4140–01–P

## DEPARTMENT OF HEALTH AND HUMAN SERVICES

### National Institutes of Health

### National Cancer Institute; Notice of Closed Meetings

Pursuant to section 10(d) of the Federal Advisory Committee Act, as amended (5 U.S.C. Appendix 2), 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 Cancer Institute Special Emphasis Panel; The Colon Cancer Family Registry.

*Date:* May 29, 2008.

*Time:* 8 a.m. to 5 p.m.

*Agenda:* To review and evaluate grant applications.

*Place:* Marriott Courtyard Gaithersburg Washingtonian Ctr, 204 Boardwalk Place, Gaithersburg, MD 20878.

*Contact Person:* Gerald G. Lovinger, PhD, Scientific Review Officer, Special Review and Logistics Branch, Division of Extramural Activities, National Cancer Institute, 6116 Executive Blvd., Room 8101, Bethesda, MD

20892–8329, 301/496–7987, *lovingeg@mail.nih.gov.*

*Name of Committee:* National Cancer Institute Special Emphasis Panel; Molecular and Cellular Oncology.

*Date:* June 4–5, 2008.

*Time:* 8 a.m. to 6 p.m.

*Agenda:* To review and evaluate grant applications.

*Place:* Gaithersburg Marriott Washingtonian Center, 9751 Washingtonian Boulevard, Gaithersburg, MD 20878.

*Contact Person:* Michael B. Small, PhD, Scientific Review Officer, Division of Extramural Activities, National Cancer Institute, National Institutes of Health, 6116 Executive Blvd., Room 8127, Bethesda, MD 20892–8328, 301–402–0996, *smallm@mail.nih.gov.*

(Catalogue of Federal Domestic Assistance Program Nos. 93.392, Cancer Construction; 93.393, Cancer Cause and Prevention Research; 93.394, Cancer Detection and Diagnosis Research; 93.395, Cancer Treatment Research; 93.396, Cancer Biology Research; 93.397, Cancer Centers Support; 93.398, Cancer Research Manpower; 93.399, Cancer Control, National Institutes of Health, HHS)

Dated: April 29, 2008.

**Jennifer Spaeth,**

*Director, Office of Federal Advisory Committee Policy.*

[FR Doc. E8–9874 Filed 5–5–08; 8:45 am]

**BILLING CODE 4140–01–P**

## DEPARTMENT OF HEALTH AND HUMAN SERVICES

### National Institutes of Health

### National Cancer Institute; Notice of Meeting

Pursuant to section 10(a) of the Federal Advisory Committee Act, as amended (5 U.S.C. Appendix 2), notice is hereby given of a meeting of the National Cancer Institute Board of Scientific Advisors.

The meeting will be open to the public, with attendance limited to space available. Individuals who plan to attend and need special assistance, such as sign language interpretation or other reasonable accommodations, should notify the Contact Person listed below in advance of the meeting.

*Name of Committee:* National Cancer Institute Board of Scientific Advisors.

*Date:* June 23–24, 2008.

*Time:* June 23, 2008, 8 a.m. to 6 p.m.

*Agenda:* Director's Report: Ongoing and New Business; Reports of Program Review Group(s); and Budget Presentation; Reports of Special Initiatives; RFA and RFP Concept Reviews; and Scientific Presentations.

*Place:* National Institutes of Health, Building 31, 31 Center Drive, 6th Floor, Conference Room 10, Bethesda, MD 20892.

*Time:* June 24, 2008, 8:30 a.m. to 12 p.m.

*Agenda:* Reports of Special Initiatives; RFA and RFP Concept Reviews; and Scientific Presentations.

*Place:* National Institutes of Health, Building 31, 31 Center Drive, 6th Floor, Conference Room 10, Bethesda, MD 20892.

*Contact Person:* Paulette S. Gray, PhD, Executive Secretary, Director, Division of Extramural Activities, National Cancer Institute, National Institutes of Health, 6116 Executive Boulevard, 8th Floor, Rm. 8001, Bethesda, Md 20892, 301–496–5147, *grayp@mail.nih.gov.*

Any interested person may file written comments with the committee by forwarding the statement to the Contact Person listed on this notice. The statement should include the name, address, telephone number and when applicable, the business or professional affiliation of the interested person.

In the interest of security, NIH has instituted stringent procedures for entrance onto the NIH campus. All visitor vehicles, including taxicabs, hotel, and airport shuttles will be inspected before being allowed on campus. Visitors will be asked to show one form of identification (for example, a government-issued photo ID, driver's license, or passport) and to state the purpose of their visit.

Information is also available on the Institute's/Center's home page: *deainfo.nci.nih.gov/advisory/bsa.htm*, where an agenda and any additional information for the meeting will be posted when available.

(Catalogue of Federal Domestic Assistance Program Nos. 93.392, Cancer Construction; 93.393, Cancer Cause and Prevention Research; 93.394, Cancer Detection and Diagnosis Research; 93.395, Cancer Treatment Research; 93.396, Cancer Biology Research; 93.397, Cancer Centers Support; 93.398, Cancer Research Manpower; 93.399, Cancer Control, National Institutes of Health, HHS)

Dated: April 29, 2008.

**Jennifer Spaeth,**

*Director, Office of Federal Advisory Committee Policy.*

[FR Doc. E8–9875 Filed 5–5–08; 8:45 am]

**BILLING CODE 4140–01–P**

## DEPARTMENT OF HEALTH AND HUMAN SERVICES

### National Institutes of Health

### National Cancer Institute; Notice of Closed Meeting

Pursuant to section 10(d) of the Federal Advisory Committee Act, as amended (5 U.S.C. Appendix 2), 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 Cancer Institute Initial Review Group; Subcommittee G—Education.

*Date:* June 24, 2008.

*Time:* 8 a.m. to 6 p.m.

*Agenda:* To review and evaluate grant applications.

*Place:* Crowne Plaza Washington Silver Spring, 8777 Georgia Ave., Silver Spring, MD 20910.

*Contact Person:* Sonya Roberson, PhD, Scientific Review Officer, Resources and Training Review Branch, Division of Extramural Activities, National Cancer Institute, 6116 Executive Blvd., Room 8109, Bethesda, MD 20892, 301–594–1182, *robersos@mail.nih.gov.*

(Catalogue of Federal Domestic Assistance Program Nos. 93.392, Cancer Construction; 93.393, Cancer Cause and Prevention Research; 93.394, Cancer Detection and Diagnosis Research; 93.395, Cancer Treatment Research; 93.396, Cancer Biology Research; 93.397, Cancer Centers Support; 93.398, Cancer Research Manpower; 93.399, Cancer Control, National Institutes of Health, HHS)

Dated: April 29, 2008.

**Jennifer Spaeth,**

*Director, Office of Federal Advisory Committee Policy.*

[FR Doc. E8–9877 Filed 5–5–08; 8:45 am]

**BILLING CODE 4140–01–P**

## DEPARTMENT OF HEALTH AND HUMAN SERVICES

### National Institutes of Health

### National Cancer Institute; Notice of Closed Meeting

Pursuant to section 10(d) of the Federal Advisory Committee Act, as amended (5 U.S.C. Appendix 2), 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 Cancer Institute Initial Review Group; Subcommittee J—Population and Patient-Oriented Training; Population and Patient-Oriented Training.

*Date:* June 17, 2008.

*Time:* 7:45 a.m. to 6 p.m.

*Agenda:* To review and evaluate grant applications.

*Place:* The Westin Tysons Corner, 7801 Leesburg Pike, Falls Church, VA 22043.

*Contact Person:* Ilda M. Mckenna, PhD, Scientific Review Officer, Research Training Review Branch, Division of Extramural Activities, National Cancer Institute, 6116 Executive Boulevard, Room 8111, Bethesda, MD 20892, 301–496–7481, *mckennai@mail.nih.gov.*

(Catalogue of Federal Domestic Assistance Program Nos. 93.392, Cancer Construction; 93.393, Cancer Cause and Prevention Research; 93.394, Cancer Detection and Diagnosis Research; 93.395, Cancer Treatment Research; 93.396, Cancer Biology Research; 93.397, Cancer Centers Support; 93.398, Cancer Research Manpower; 93.399, Cancer Control, National Institutes of Health, HHS)

Dated: April 29, 2008.

**Jennifer Spaeth,**

*Director, Office of Federal Advisory Committee Policy.*

[FR Doc. E8–9879 Filed 5–5–08; 8:45 am]

**BILLING CODE 4140–01–P**

## DEPARTMENT OF HEALTH AND HUMAN SERVICES

### National Institutes of Health

### Prospective Grant of Exclusive License: Antibody Therapeutics for the Treatment of Cancer in Humans

**AGENCY:** National Institutes of Health, Public Health Service, HHS.

**ACTION:** Notice.

**SUMMARY:** This is notice, in accordance with 35 U.S.C. 209(c)(1) and 37 CFR 404.7(a)(1)(i), that the National Institutes of Health, Department of Health and Human Services, is contemplating the grant of an exclusive patent license to practice the invention embodied in U.S. Patent Application Number 11/895,326, filed August 24, 2007, entitled ''Tumor Markers in Ovarian Cancer'' [E–138–2000/0–US–05]; to Morphotek, Incorporated, having a place of business at Exton, PA. The patent rights in these inventions have been assigned to the United States of America.

The prospective exclusive license territory may be worldwide, and the field of use may be limited to antibodies developed by Licensee's proprietary Human MORPHODOMA® antibody technology or via humanization for anti-claudin-3 antibody therapeutics for ovarian cancer.

**DATES:** Only written comments and/or applications for a license which are received by the NIH Office of Technology Transfer on or before July 7, 2008 will be considered.

**ADDRESSES:** Requests for copies of the patent application, inquiries, comments, and other materials relating to the contemplated exclusive license should be directed to: Jennifer Wong, Technology Licensing Specialist, Office of Technology Transfer, National Institutes of Health, 6011 Executive Boulevard, Suite 325, Rockville, MD 20852–3804; Telephone: (301) 435–4633; Facsimile: (301) 402–0220; E-mail: *wongje@mail.nih.gov*.

**SUPPLEMENTARY INFORMATION:** The technology relates to claudin-3 as an ovarian cancer biomarker. Claudin-3 was identified as a biomarker utilizing SAGE analysis comparing ovarian epithelial tumor cells and normal ovarian epithelial cells. Claudin-3 is a member of a family of transmembrane proteins associated with tight junctions and its function has been associated with invasive ovarian cancer. Inhibition of claudin-3 is a potential therapeutic for the treatment of metastatic ovarian cancer.

The prospective exclusive license will be royalty bearing and will comply with the terms and conditions of 35 U.S.C. 209 and 37 CFR 404.7. The prospective exclusive license may be granted unless within sixty (60) days from the date of this published notice, the NIH receives written evidence and argument that establishes that the grant of the license would not be consistent with the requirements of 35 U.S.C. 209 and 37 CFR 404.7.

Applications for a license in the field of use filed in response to this notice will be treated as objections to the grant of the contemplated exclusive license. Comments and objections submitted to this notice will not be made available for public inspection and, to the extent permitted by law, will not be released under the Freedom of Information Act, 5 U.S.C. 552.

Dated: April 29, 2008.

**David Sadowski,**

*Deputy Director, Division of Technology Development and Transfer, Office of Technology Transfer, National Institutes of Health.*

[FR Doc. E8–9873 Filed 5–5–08; 8:45 am]

**BILLING CODE 4140–01–P**

## DEPARTMENT OF HOMELAND SECURITY

### Transportation Security Administration

**[Docket Nos. TSA–2006–24191; Coast Guard–2006–24196]**

### Transportation Worker Identification Credential (TWIC); Enrollment Dates for the Ports of Houma, LA; Morgan City, LA; Calcite, MI; San Francisco, CA; and Kansas City, MO

**AGENCY:** Transportation Security Administration; United States Coast Guard; DHS.

**ACTION:** Notice.

**SUMMARY:** The Department of Homeland Security (DHS) through the Transportation Security Administration (TSA) issues this notice of the dates for the beginning of the initial enrollment for the Transportation Worker Identification Credential (TWIC) for the Ports of Houma, LA; Morgan City, LA; Calcite, MI; San Francisco, CA; and Kansas City, MO.

**DATES:** TWIC enrollment begins in Houma on May 7, 2008; Morgan City on May 9, 2008; Calcite and San Francisco on May 14, 2008; and Kansas City on May 15, 2008.

**ADDRESSES:** You may view published documents and comments concerning the TWIC Final Rule, identified by the docket numbers of this notice, using any one of the following methods.

(1) Searching the Federal Docket Management System (FDMS) Web page at *http://www.regulations.gov;*

(2) Accessing the Government Printing Office's Web page at *http://www.gpoaccess.gov/fr/index.html;* or

(3) Visiting TSA's Security Regulations Web page at *http://www.tsa.gov* and accessing the link for ''Research Center'' at the top of the page.

**FOR FURTHER INFORMATION CONTACT:** James Orgill, TSA–19, Transportation Security Administration, 601 South 12th Street, Arlington, VA 22202–4220. Transportation Threat Assessment and Credentialing (TTAC), TWIC Program, (571) 227–4545; e-mail: *credentialing@dhs.gov.*

### Background

The Department of Homeland Security (DHS), through the United States Coast Guard and the Transportation Security Administration (TSA), issued a joint final rule (72 FR 3492; January 25, 2007) pursuant to the Maritime Transportation Security Act (MTSA), Pub. L. 107–295, 116 Stat. 2064 (November 25, 2002), and the Security and Accountability for Every Port Act of

2006 (SAFE Port Act), Pub. L. 109–347 (October 13, 2006). This rule requires all credentialed merchant mariners and individuals with unescorted access to secure areas of a regulated facility or vessel to obtain a TWIC. In this final rule, on page 3510, TSA and Coast Guard stated that a phased enrollment approach based upon risk assessment and cost/benefit would be used to implement the program nationwide, and that TSA would publish a notice in the **Federal Register** indicating when enrollment at a specific location will begin and when it is expected to terminate.

This notice provides the start date for TWIC initial enrollment at the Ports of TWIC enrollment begins in Houma, LA on May 7, 2008; Morgan City, LA on May 9, 2008; Calcite, MI and San Francisco, CA on May 14, 2008; and Kansas City, MO on May 15, 2008. The Coast Guard will publish a separate notice in the **Federal Register** indicating when facilities within the Captain of the Port Zone MSU Morgan City, including those in the Ports of Houma and Morgan City; Captain of the Port Zone Sault Ste. Marie, including those in the Port of Calcite; Captain of the Port Zone San Francisco Bay, including those in the Port of San Francisco; and Captain of the Port Zone Upper Miss. River, including those in the Port of Kansas City must comply with the portions of the final rule requiring TWIC to be used as an access control measure. That notice will be published at least 90 days before compliance is required.

To obtain information on the pre-enrollment and enrollment process, and enrollment locations, visit TSA's TWIC Web site at *http://www.tsa.gov/twic.*

Issued in Arlington, Virginia, on April 30, 2008.

**Rex Lovelady,**

*Program Manager, TWIC, Office of Transportation Threat Assessment and Credentialing, Transportation Security Administration.*

[FR Doc. E8–10003 Filed 5–5–08; 8:45 am]

**BILLING CODE 9110–05–P**

## DEPARTMENT OF HOMELAND SECURITY

### U.S. Customs and Border Protection

### Agency Information Collection Activities: Lay Order Period—General Order Merchandise

**AGENCY:** U.S. Customs and Border Protection, Department of Homeland Security.

**ACTION:** 30-Day Notice and request for comments; Extension of an existing information collection: 1651–0079; Proposed collection; comments requested.

**SUMMARY:** U.S. Customs and Border Protection (CBP) of the Department of Homeland Security has submitted the following information collection request to the Office of Management and Budget (OMB) for review and approval in accordance with the Paperwork Reduction Act: Lay Order Period—General Order Merchandise. This is a proposed extension of an information collection that was previously approved. CBP is proposing that this information collection be extended with no change to the burden hours. This document is published to obtain comments from the public and affected agencies. This proposed information collection was previously published in the **Federal Register** (73 FR 11655) on March 4, 2008, allowing for a 60-day comment period. This notice allows for an additional 30 days for public comments. This process is conducted in accordance with 5 CFR 1320.10.

**DATES:** Written comments should be received on or before June 5, 2008.

**ADDRESSES:** Interested persons are invited to submit written comments on the proposed information collection to the Office of Information and Regulatory Affairs, Office of Management and Budget. Comments should be addressed to Nathan Lesser, Desk Officer, Department of Homeland Security/Customs and Border Protection, and sent via electronic mail to *oira_submission@omb.eop.gov* or faxed to (202) 395–6974.

**SUPPLEMENTARY INFORMATION:** U.S. Customs and Border Protection (CBP) encourages the general public and affected Federal agencies to submit written comments and suggestions on proposed and/or continuing information collection requests pursuant to the Paperwork Reduction Act (Pub. L. 104–13). Your comments should address one 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/component, including whether the information will have practical utility;

(2) Evaluate the accuracy of the agencies'/components' 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 collections 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.

*Title:* Lay Order Period—General Order Merchandise Cost Submissions.

*OMB Number:* 1651–0079.

*Form Number:* N/A.

*Abstract:* This collection is required to ensure that the operator of an arriving carrier or transfer agent shall notify a bonded warehouse proprietor of the presence of merchandise that has remained at the place of arrival or unlading without entry beyond the time period provided for by regulation.

*Current Actions:* There are no changes to the information collection. This submission is being submitted to extend the expiration date.

*Type of Review:* Extension (without change).

*Title:* Establishment of a Container Station.

*OMB Number:* 1651–0079.

*Form Number:* N/A.

*Abstract:* This collection is required to ensure that the operator of an arriving carrier or transfer agent shall notify a bonded warehouse proprietor of the presence of merchandise that has remained at the place of arrival or unlading without entry beyond the time period provided for by regulation.

*Affected Public:* Businesses.

*Estimated Number of Respondents:* 390.

*Estimated Number of Total Responses:* 50,700.

*Estimated Time per Response:* 15 minutes.

*Estimated Total Annual Burden Hours:* 12,675.

If additional information is required contact: Tracey Denning, U.S. Customs and Border Protection, 1300 Pennsylvania Avenue, NW., Room 3.2.C, Washington, DC 20229, at 202–344–1429.

Dated: April 28, 2008.

**Tracey Denning,**

*Agency Clearance Officer, Customs and Border Protection.*

[FR Doc. E8–9969 Filed 5–5–08; 8:45 am]

**BILLING CODE 9111–14–P**

## DEPARTMENT OF HOMELAND SECURITY

### U.S. Customs and Border Protection

### Agency Information Collection Activities: Application to Payoff or Discharge Alien Crewman

**AGENCY:** U.S. Customs and Border Protection, Department of Homeland Security.

**ACTION:** 30-Day Notice and request for comments; Extension of an existing information collection: 1651–0106; Proposed collection; comments requested.

**SUMMARY:** U.S. Customs and Border Protection (CBP) of the Department of Homeland Security has submitted the following information collection request to the Office of Management and Budget (OMB) for review and approval in accordance with the Paperwork Reduction Act: Application to Payoff or Discharge Alien Crewman (Form I–408). This is a proposed extension of an information collection that was previously approved. CBP is proposing that this information collection be extended with no change to the burden hours. This document is published to obtain comments from the public and affected agencies. This proposed information collection was previously published in the **Federal Register** (73 FR 11658) on March 4, 2008, allowing for a 60-day comment period. This notice allows for an additional 30 days for public comments. This process is conducted in accordance with 5 CFR 1320.10.

**DATES:** Written comments should be received on or before June 5, 2008.

**ADDRESSES:** Interested persons are invited to submit written comments on the proposed information collection to the Office of Information and Regulatory Affairs, Office of Management and Budget. Comments should be addressed to Nathan Lesser, Desk Officer, Department of Homeland Security/ Customs and Border Protection, and sent via electronic mail to *oira_submission@omb.eop.gov* or faxed to (202) 395–6974.

**SUPPLEMENTARY INFORMATION:** U.S. Customs and Border Protection (CBP) encourages the general public and affected Federal agencies to submit written comments and suggestions on proposed and/or continuing information collection requests pursuant to the Paperwork Reduction Act (Pub. L. 104–13). Your comments should address one 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/component, including whether the information will have practical utility;

(2) Evaluate the accuracy of the agencies'/components' 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 collections 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.

*Title:* Application to Pay Off or Discharge Alien Crewman.

*OMB Number:* 1651–0106.

*Form Number:* I–408.

*Abstract:* This form is used by owner, agent, consignee, master, or commander of any vessel or aircraft to obtain permission from CBP to pay off or discharge any alien crewman.

*Current Actions:* There are no changes to the information collection. This submission is being submitted to extend the expiration date.

*Type of Review:* Extension (without change).

*Affected Public:* Businesses.

*Estimated Number of Respondents:* 85,000.

*Estimated Time per Respondent:* 25 minutes.

*Estimated Total Annual Burden Hours:* 35,360.

If additional information is required contact: Tracey Denning, U.S. Customs and Border Protection, 1300 Pennsylvania Avenue, NW., Room 3.2.C, Washington, DC 20229, at 202–344–1429.

Dated: April 28, 2008.

**Tracey Denning,**

*Agency Clearance Officer, Customs and Border Protection.*

[FR Doc. E8–9971 Filed 5–5–08; 8:45 am]

BILLING CODE 9111–14–P

## DEPARTMENT OF HOMELAND SECURITY

### U.S. Customs and Border Protection

### Agency Information Collection Activities: Declaration of Unaccompanied Articles

**AGENCY:** U.S. Customs and Border Protection, Department of Homeland Security.

**ACTION:** 30-Day notice and request for comments; Extension of an existing information collection: 1651–0030; Proposed collection; comments requested.

**SUMMARY:** U.S. Customs and Border Protection (CBP) of the Department of Homeland Security has submitted the following information collection request to the Office of Management and Budget (OMB) for review and approval in accordance with the Paperwork Reduction Act: Declaration of Unaccompanied Articles. This is a proposed extension of an information collection that was previously approved. CBP is proposing that this information collection be extended with no change to the burden hours. This document is published to obtain comments from the public and affected agencies. This proposed information collection was previously published in the **Federal Register** (73 FR 11656) on March 4, 2008, allowing for a 60-day comment period. This notice allows for an additional 30 days for public comments. This process is conducted in accordance with 5 CFR 1320.10.

**DATES:** Written comments should be received on or before June 5, 2008.

**ADDRESSES:** Interested persons are invited to submit written comments on the proposed information collection to the Office of Information and Regulatory Affairs, Office of Management and Budget. Comments should be addressed to Nathan Lesser, Desk Officer, Department of Homeland Security/ Customs and Border Protection, and sent via electronic mail to *oira_submission@omb.eop.gov* or faxed to (202) 395–6974.

**SUPPLEMENTARY INFORMATION:** U.S. Customs and Border Protection (CBP) encourages the general public and affected Federal agencies to submit written comments and suggestions on proposed and/or continuing information collection requests pursuant to the Paperwork Reduction Act (Pub. L. 104–13). Your comments should address one 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/component, including whether the information will have practical utility;

(2) Evaluate the accuracy of the agencies/components 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 collections 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.

*Title:* Declaration for Unaccompanied Articles.

*OMB Number:* 1651–0030.

*Form Number:* CBP Form-255.

*Abstract:* The Form 255 is completed by each arriving passenger for each parcel or container which is being sent from an Insular Possession to the United States at a later date. This declaration allows that traveler to claim their appropriate allowable exemption.

*Current Actions:* There are no changes to the information collection. This submission is being submitted to extend the expiration date.

*Type of Review:* Extension (without change).

*Affected Public:* Individuals.

*Estimated Number of Respondents:* 7,500.

*Estimated Total Annual Responses:* 15,000.

*Estimated Time per Response:* 5 minutes.

*Estimated Total Annual Burden Hours:* 1,250.

If additional information is required contact: Tracey Denning, U.S. Customs and Border Protection, 1300 Pennsylvania Avenue, NW., Room 3.2.C, Washington, DC 20229, at 202–344–1429.

Dated: April 28, 2008.

**Tracey Denning,**

*Agency Clearance Officer, Customs and Border Protection.*

[FR Doc. E8–9987 Filed 5–5–08; 8:45 am]

**BILLING CODE 9111–14–P**

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## DEPARTMENT OF HOMELAND SECURITY

### U.S. Customs and Border Protection

### Agency Information Collection Activities: Establishment of a Container Station

**AGENCY:** U.S. Customs and Border Protection, Department of Homeland Security.

**ACTION:** 30-Day notice and request for comments; Extension of an existing information collection: 1651–0040; Proposed collection; comments requested.

**SUMMARY:** U.S. Customs and Border Protection (CBP) of the Department of Homeland Security has submitted the following information collection request to the Office of Management and Budget (OMB) for review and approval in accordance with the Paperwork Reduction Act: Establishment of a Container Station. This is a proposed extension of an information collection that was previously approved. CBP is proposing that this information collection be extended with no change to the burden hours. This document is published to obtain comments from the public and affected agencies. This proposed information collection was previously published in the **Federal Register** (73 FR 11656) on March 4, 2008, allowing for a 60-day comment period. This notice allows for an additional 30 days for public comments. This process is conducted in accordance with 5 CFR 1320.10.

**DATES:** Written comments should be received on or before June 5, 2008.

**ADDRESSES:** Interested persons are invited to submit written comments on the proposed information collection to the Office of Information and Regulatory Affairs, Office of Management and Budget. Comments should be addressed to Nathan Lesser, Desk Officer, Department of Homeland Security/Customs and Border Protection, and sent via electronic mail to *oira_submission@omb.eop.gov* or faxed to (202) 395–6974.

**SUPPLEMENTARY INFORMATION:** U.S. Customs and Border Protection (CBP) encourages the general public and affected Federal agencies to submit written comments and suggestions on proposed and/or continuing information collection requests pursuant to the Paperwork Reduction Act (Pub. L. 104–13). Your comments should address one 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/component, including whether the information will have practical utility;

(2) Evaluate the accuracy of the agencies/components 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 collections 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.

*Title:* Establishment of a Container Station.

*OMB Number:* 1651–0040.

*Form Number:* N/A.

*Abstract:* This collection is an application to establish a container station for the vaning and devaning of cargo.

*Current Actions:* There are no changes to the information collection. This submission is being submitted to extend the expiration date.

*Type of Review:* Extension (without change).

*Affected Public:* Businesses.

*Estimated Number of Respondents:* 205.

*Estimated Time per Respondent:* 3 hours.

*Estimated Total Annual Burden Hours:* 615.

If additional information is required contact: Tracey Denning, U.S. Customs and Border Protection, 1300 Pennsylvania Avenue, NW., Room 3.2.C, Washington, DC 20229, at 202–344–1429.

Dated: April 28, 2008.

**Tracey Denning,**

*Agency Clearance Officer, Customs and Border Protection.*

[FR Doc. E8–9989 Filed 5–5–08; 8:45 am]

**BILLING CODE 9111–14–P**

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## DEPARTMENT OF HOMELAND SECURITY

### U.S. Customs and Border Protection

### Agency Information Collection Activities: Bonded Warehouse Regulations

**AGENCY:** U.S. Customs and Border Protection, Department of Homeland Security.

**ACTION:** 30-Day notice and request for comments; Extension of an existing information collection: 1651–0041; Proposed collection; comments requested.

**SUMMARY:** U.S. Customs and Border Protection (CBP) of the Department of Homeland Security has submitted the following information collection request to the Office of Management and Budget (OMB) for review and approval in accordance with the Paperwork Reduction Act: Bonded Warehouse Regulations. This is a proposed extension of an information collection that was previously approved. CBP is proposing that this information collection be extended with no change to the burden hours. This document is published to obtain comments from the public and affected agencies. This proposed information collection was previously published in the **Federal Register** (73 FR 11658) on March 4,

2008, allowing for a 60-day comment period. This notice allows for an additional 30 days for public comments. This process is conducted in accordance with 5 CFR 1320.10.

**DATES:** Written comments should be received on or before June 5, 2008.

**ADDRESSES:** Interested persons are invited to submit written comments on the proposed information collection to the Office of Information and Regulatory Affairs, Office of Management and Budget. Comments should be addressed to Nathan Lesser, Desk Officer, Department of Homeland Security/ Customs and Border Protection, and sent via electronic mail to *oira_submission@omb.eop.gov* or faxed to (202) 395–6974.

**SUPPLEMENTARY INFORMATION:** U.S. Customs and Border Protection (CBP) encourages the general public and affected Federal agencies to submit written comments and suggestions on proposed and/or continuing information collection requests pursuant to the Paperwork Reduction Act (Pub. L. 104–13). Your comments should address one 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/component, including whether the information will have practical utility;

(2) Evaluate the accuracy of the agencies/components 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 collections 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.

*Title:* Bonded Warehouse Regulations.

*OMB Number:* 1651–0041.

*Form Number:* N/A.

*Abstract:* This collection of information is used by CBP to ensure that the legal, regulatory and administrative requirements are met by respondents with respect to bonded warehouses, including establishment of bonded warehouses; receiving free materials at the warehouse; and making alterations, suspensions, relocations or discontinuances of bonded warehouses.

*Current Actions:* There are no changes to the information collection. This submission is being submitted to extend the expiration date.

*Type of Review:* Extension (without change).

*Affected Public:* Businesses.

*Estimated Number of Respondents:* 198.

*Estimated Number of Total Responses:* 9,254.

*Estimated Time per Response:* 32 minutes.

*Estimated Total Annual Burden Hours:* 4,910.

If additional information is required contact: Tracey Denning, U.S. Customs and Border Protection, 1300 Pennsylvania Avenue, NW., Room 3.2.C, Washington, DC 20229, at 202–344–1429.

Dated: April 28, 2008.

**Tracey Denning,**

*Agency Clearance Officer, Customs and Border Protection.*

[FR Doc. E8–9991 Filed 5–5–08; 8:45 am]

**BILLING CODE 9111–14–P**

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## DEPARTMENT OF HOMELAND SECURITY

### U.S. Customs and Border Protection

### Agency Information Collection Activities: Notice of Detention

**AGENCY:** U.S. Customs and Border Protection, Department of Homeland Security.

**ACTION:** 30-Day notice and request for comments; Extension of an existing information collection: 1651–0073; Proposed collection; comments requested.

**SUMMARY:** U.S. Customs and Border Protection (CBP) of the Department of Homeland Security has submitted the following information collection request to the Office of Management and Budget (OMB) for review and approval in accordance with the Paperwork Reduction Act: Notice of Detention. This is a proposed extension of an information collection that was previously approved. CBP is proposing that this information collection be extended with no change to the burden hours. This document is published to obtain comments form the public and affected agencies. This proposed information collection was previously published in the **Federal Register** (73 FR 11657) on March 4, 2008, allowing for a 60-day comment period. This notice allows for an additional 30 days for public comments. This process is conducted in accordance with 5 CFR 1320.10.

**DATES:** Written comments should be received on or before June 5, 2008.

**ADDRESSES:** Interested persons are invited to submit written comments on the proposed information collection to the Office of Information and Regulatory Affairs, Office of Management and Budget. Comments should be addressed to Nathan Lesser, Desk Officer, Department of Homeland Security/ Customs and Border Protection, and sent via electronic mail to *oira_submission@omb.eop.gov* or faxed to (202) 395–6974.

**SUPPLEMENTARY INFORMATION:** U.S. Customs and Border Protection (CBP) encourages the general public and affected Federal agencies to submit written comments and suggestions on proposed and/or continuing information collection requests pursuant to the Paperwork Reduction Act (Pub. L. 104–13). Your comments should address one 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/component, including whether the information will have practical utility;

(2) Evaluate the accuracy of the agencies/components 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 collections 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.

*Title:* Notice of detention.

*OMB Number:* 1651–0073.

*Form Number:* N/A.

*Abstract:* This collection requires a response to the Notice of Detention of merchandise and to provide evidence of admissibility to allow entry.

*Current Actions:* There are no changes to the information collection. This submission is being submitted to extend the expiration date.

*Type of Review:* Extension (without change).

*Affected Public:* Businesses.

*Estimated Number of Respondents:* 1350.

*Estimated Time Per Respondent:* 2 hours.

*Estimated Total Annual Burden Hours:* 2700.

If additional information is required contact: Tracey Denning, U.S. Customs and Border Protection, 1300 Pennsylvania Avenue, NW., Room

3.2.C, Washington, DC 20229, at 202–344–1429.

Dated: April 28, 2008.

**Tracey Denning,**

*Agency Clearance Officer, Customs and Border Protection.*

[FR Doc. E8–9993 Filed 5–5–08; 8:45 am]

**BILLING CODE 9111–14–P**

## DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

**[Docket No. FR–5213–N–01]**

## Section 8 Housing Choice Vouchers: Implementation of the HUD–VA Supportive Housing Program

**AGENCY:** Office of the Assistant Secretary for Public and Indian Housing.

**ACTION:** Notice.

**SUMMARY:** This Notice sets forth the policies and procedures for the administration of tenant-based Section 8 Housing Choice Voucher (HCV) rental assistance under the HUD–Veterans Affairs Supportive Housing (HUD–VASH) program administered by local public housing agencies (PHAs) that have partnered with local Veterans Affairs (VA) medical centers.

**DATES:** Effective date: May 6, 2008.

**FOR FURTHER INFORMATION CONTACT:** David A. Vargas, Director, Office of Housing Voucher Programs, Department of Housing and Urban Development, 451 Seventh Street, SW., Room 4228, Washington, DC, 20410, telephone number (202) 708–2815. (This is not a toll-free number.)

**SUPPLEMENTARY INFORMATION:**

I. Background
II. Special Rules for the HUD–VASH Voucher Program
a. Family Eligibility and Selection
b. Income Eligibility
c. Initial Term of the HCV
d. Initial Lease Term
e. Ineligible Housing
f. Mobility and Portability of HUD–VASH Vouchers
g. Case Management Requirements
h. Turnover of HUD–VASH Vouchers
i. Moving-to-Work (MTW) Agencies
j. Project-based Assistance
k. Section Eight Management Assessment Program (SEMAP)
III. Reporting Requirements

### I. Background

Seventy-five million dollars in Housing Choice Voucher (HCV) program funding will provide rental assistance under a supportive housing program for homeless veterans authorized by section 8(o)(19) of the United States Housing Act of 1937, 42 U.S.C. 1437f(o)(19). The initiative is known as the HUD–VASH program and was authorized pursuant to Division K, Title II, of The Consolidated Appropriations Act, 2008 (Pub. L. 110–161) (''2008 Appropriation Act'') enacted on December 26, 2007 (see proviso (7) under the heading ''Tenant-Based Rental Assistance''). The HUD–VASH program combines HUD HCV rental assistance for homeless veterans with case management and clinical services provided by the Department of Veterans Affairs (VA) at its medical centers and in the community. Ongoing VA case management, health, and other supportive services will be made available to homeless veterans at as many as 132 VA Medical Center (VAMC) supportive services sites across the nation.

The 2008 Appropriation Act required HUD to ''make such funding available, notwithstanding section 204 (competition provision) of this title, to public housing agencies (PHAs) that partner with eligible VA Medical Centers or other entities as designated by the Secretary of the Department of Veterans Affairs, based on geographical need for such assistance as identified by the Secretary of the Department of Veterans Affairs, public housing agency administrative performance, and other factors as specified by the Secretary of Housing and Urban Development in consultation with the Secretary of the Department of Veterans Affairs.''

Based on this language, the VA, in consultation with HUD, identified 132 VAMCs that will participate with the program. In doing so, the VA took into account the population of homeless veterans needing services in the area, the number of homeless veterans served by the homeless programs at each VAMC during Fiscal Years 2006 and FY 2007, geographic distribution, and VA case management resources. There will be at least one site in each of the 50 states and in the District of Columbia and Puerto Rico.

HUD, in consultation with the VA, and in consideration of a PHA's administrative performance, identified eligible PHAs located in the jurisdiction of the VAMCs and invited them to apply for HUD–VASH vouchers. The number of HUD–VASH vouchers awarded to each PHA was determined by HUD and the VA. Approximately 35 rental vouchers were awarded for each professional, full-time HUD–VASH case manager at the local VAMC. HUD–VASH vouchers may be reallocated in the future based on need and usage. A PHA that participates in the HUD–VASH program must partner with their VASH VAMC. Additional information on program requirements and procedures may be found on HUD's Web site at *www.HUD.gov.*

### II. Special Rules for the HUD–VASH Voucher Program

This section sets forth the design features of the HUD–VASH vouchers, including the eligibility of families, portability, case management, and the turnover of these vouchers. The 2008 Appropriation Act states ''that the Secretary of Housing and Urban Development may waive, or specify alternative requirements for (in consultation with the Secretary of the Department of Veterans Affairs), any provision of any statute or regulation that the Secretary of Housing and Urban Development administers in connection with the use of funds made available under this paragraph (except for requirements related to fair housing, nondiscrimination, labor standards, and the environment) upon a finding by the Secretary that any such waivers or alternative requirements are necessary for the effective delivery and administration of such voucher assistance: *Provided further,* That assistance made available under this paragraph shall continue to remain available for homeless veterans upon turnover.''

This notice outlines, below, the waivers or alternative requirements determined by the Secretary to be necessary for the effective delivery and administration of the HUD–VASH program. These waivers or alternative requirements are exceptions to the normal HCV requirements, which otherwise govern the provision of HUD–VASH assistance. In addition, a PHA may request additional statutory or regulatory waivers that it determines are necessary for the effective delivery and administration of the program. These requests may be submitted to the Secretary for review and decision through the Assistant Secretary for Public and Indian Housing.

HUD–VASH vouchers under this part are administered in accordance with the HCV tenant-based rental assistance regulations set forth at 24 CFR part 982. In the HCV program, the PHA pays monthly rental subsidies so that eligible families can afford decent, safe, and sanitary housing. HUD provides housing assistance funds to the PHA, as well as funds for PHA administration of the program.

Under the HCV tenant-based program, families select and rent units that meet program housing-quality standards. If the PHA approves a family's unit and tenancy, the PHA contracts with the owner to make rent subsidy payments (housing assistance payments) directly

to the owner on behalf of the family on a monthly basis. The family enters into a lease with the owner and pays its share of the rent to the owner in accordance with the lease. The housing assistance payment (HAP) contract between the PHA and the owner covers only a single unit and a specific assisted family. If the family moves out of the leased unit, the HAP contract with the owner terminates. The family may generally move to another unit with continued assistance so long as the family is complying with program requirements.

Unless expressly noted below, all regulatory requirements and HUD directives regarding the HCV tenant-based program are applicable to HUD–VASH vouchers, including the use of all HUD-required contracts and other forms. The PHA's local discretionary policies adopted in the PHA's written administrative plan apply to HUD–VASH vouchers, unless such local policy conflicts with the requirements of the HUD–VASH vouchers outlined below.

PHAs are required to maintain records that allow for the easy identification of families receiving HUD–VASH vouchers. PHAs must identify these families in the Public and Indian Housing Information Center (PIC). This record-keeping will help ensure that, in accordance with appropriations renewal language, HUD–VASH vouchers that are in use will remain available for homeless veterans upon turnover.

a. Family Eligibility and Selection

HUD–VASH eligible families are homeless veterans. The 2008 Appropriation Act provides for statutory or regulatory waivers or alternative requirements upon a finding by the Secretary that such waivers or alternatives are necessary for the effective administration and delivery of voucher assistance. The December 17, 2007, Explanatory Statement for the 2008 Appropriation Act provides, ''The Appropriations Committees expect that these vouchers will be made available to all homeless veterans, including recently returning veterans' (153 Cong. Rec. H16514 (daily ed., Dec. 17, 2007)). HUD, through its undersigned Secretary, finds the following waivers necessary to effectively administer and deliver the program to all veterans in accordance with Congressional intent.

Section 8(o)(19) of the United States Housing Act of 1937 (USHA of 1937), which requires homeless veterans to have chronic mental illnesses or chronic substance use disorders with required treatment of these disorders as a condition of receipt of HUD–VASH assistance, is waived.

The VAMC will refer HUD–VASH eligible families to the PHA for the issuance of vouchers. Written documentation of these referrals must be maintained in the tenant file at the PHA. Therefore, the PHA will not have the authority to maintain a waiting list or apply local preferences for HUD–VASH vouchers. Accordingly, section 8(o)(6)(A) of the USHA of 1937, 42 U.S.C. 1437f(o)(6)(A), in regard to preferences, has been waived to provide for the effective administration of the program. In addition, 24 CFR 982.202, 982.204, and 982.207, relating to applicant selection from the waiting list and local preferences, are also waived. Sections 982.203, 982.205, and 982.206 regarding special admissions, cross-listing of the waiting list, and opening and closing the waiting list do not apply to the HUD–VASH program.

The VAMC will screen all families in accordance with its screening criteria. By agreeing to administer the HUD–VASH program, the PHA is relinquishing its authority to determine the eligibility of families in accordance with regular HCV program rules and PHA policies. Specifically, under the HUD–VASH program, PHAs will not have the authority to screen potentially eligible families or deny assistance for any grounds permitted under 24 CFR 982.552 (broad denial for violations of HCV program requirements) and 982.553 (specific denial for criminals and alcohol abusers), with one exception. PHAs will still be required to prohibit admission if any member of the household is subject to a lifetime registration requirement under a state sex offender registration program. Accordingly, the Department is exercising its authority to waive 42 U.S.C. 1437d(s); 42 U.S.C. 13661(a), (b), and (c); and 24 CFR Sections 982.552 and 982.553, with the exception of 982.553(a)(2)(i), which requires denial of admission to certain registered sex offenders.

Civil rights requirements cannot be waived. The HUD–VASH program is administered in accordance with applicable Fair Housing requirements. These requirements prohibit discrimination on the basis of race, color, religion, sex, familial status, national origin, or disability. When disabled veterans are HUD–VASH recipients, HUD's reasonable accommodation standards apply.

b. Income Eligibility

The PHA must determine income eligibility for HUD–VASH families in accordance with 24 CFR 982.201. Income targeting requirements of section 16(b) of the USHA of 1937, as well as 24 CFR 982.201(b)(2), do not apply for HUD–VASH families so that participating PHAs can effectively serve the eligible population specified in the 2008 Appropriation Act; that is, homeless veterans, who may be at a variety of income levels. The PHA may, however, choose to include the admission of extremely low-income HUD–VASH families in its income targeting numbers for the fiscal year in which these families are admitted.

c. Initial Term of the HCV

Recognizing the challenges that HUD–VASH participants may face with their housing search, HUD–VASH vouchers must have an initial search term of at least 120 days. Therefore, § 982.303(a), which states that the initial search term must be at least 60 days, shall not apply, since the initial term must be at least 120 days. Any extensions, suspensions, and progress reports will remain under the policies in the PHA's administrative plan, but will apply after the minimum 120-day initial search term.

d. Initial Lease Term

Under the HCV program, voucher participants must enter into an initial lease with the owner for one year, unless a shorter term would improve housing opportunities for the tenant and the shorter term is a prevailing market practice. To provide a greater range of housing opportunities for HUD–VASH voucher holders, initial leases may be less than 12 months; therefore, both section 8(o)(7)(A) of the USHA of 1937, 42 U.S.C. 1437f(o)(7)(A), and 24 CFR 982.309(a)(2)(ii) are waived.

e. Ineligible Housing

HUD–VASH families will be permitted to live on the grounds of a VAMC in units owned by the VA. Therefore, 24 CFR 982.352(a)(5), which prohibits units on the grounds of a medical, mental, or similar public or private institution, is waived for that purpose only.

f. Mobility and Portability of HUD–VASH Vouchers

An eligible family issued a HUD–VASH voucher must receive case management services provided by the VAMC. Therefore, special mobility and portability procedures must be established. HUD–VASH participant families may reside only in those jurisdictional areas that are accessible to case management services as determined by the partnering VAMC. Since the VAMC will be identifying homeless veterans eligible to participate

in the HUD–VASH program, section 8(r)(1)(B)(i) of the USHA of 1937, 42 U.S.C. 1437f(r)(1(B)(i), which restricts portability in cases where the family did not reside in the jurisdiction of the PHA at the time of application for HCV assistance, and 24 CFR 982.353(a), (b), and (c), which affects where a family can lease a unit with HCV assistance, do not apply.

(1) Portability Moves Where Case Management Is Provided by the Initial PHA's Partnering VAMC

If the family initially leases up, or moves, under portability provisions, but the initial PHA's partnering VAMC will still be able to provide the necessary case management services due to its proximity to the partnering VAMC, the receiving PHA must process the move in accordance with the portability procedures of 24 CFR 982.355. However, since the initial PHA must maintain records on all HUD–VASH families receiving case management services from its partnering VAMC, receiving PHAs must bill the initial PHA. Therefore, 24 CFR 982.355(d), which gives the receiving PHA the option to absorb the family into its own HCV program or bill the initial PHA, is not applicable.

When the receiving PHA completes the HUD–50058 under the scenarios above, the action type that must be recorded on line 2a is ''1'' for a new admission (a family that is new to the HCV program) or ''4'' for a portability move-in (a family that was previously leased up in the jurisdiction of the initial PHA). Whether the family is a new admission or portability move-in, in section 12 of the HUD–50058, line 12d is marked ''Y,'' 12e must be 0 since the family must be absorbed, and 12f must be left blank.

g. Case Management Requirements

The VAMC responsibilities include: (1) The screening of homeless veterans to determine whether they meet the HUD–VASH program participation criteria established by the VA national office; (2) providing appropriate treatment and supportive services to potential HUD–VASH program participants, if needed, prior to PHA issuance of rental vouchers; (3) providing housing search assistance to HUD–VASH participants with rental vouchers; (4) identifying the social service and medical needs of HUD–VASH participants and providing, or ensuring the provision of, regular ongoing case management, outpatient health services, hospitalization, and other supportive services as needed throughout this initiative; and (5) maintaining records and providing information for evaluation purposes, as required by HUD and the VA.

As a condition of HCV rental assistance, a HUD–VASH eligible family must receive the case management services noted above from the VAMC. Therefore, a HUD–VASH participant family's HCV assistance must be terminated for failure to participate, without good cause, in case management as verified by the VAMC. However, a VAMC determination that the participant family no longer requires case management is not grounds for termination of assistance. In such case, and at its option, the PHA may offer the family continued HCV assistance through one of its regular vouchers, to free up the HUD–VASH voucher for another eligible family referred by the VAMC.

h. Turnover of HUD–VASH Vouchers

In accordance with the 2008 Appropriation Act, upon turnover, HUD–VASH vouchers must be issued to eligible families as identified by the VAMC, as noted above.

i. Moving-To-Work (MTW) Agencies

HUD–VASH vouchers must be administered in accordance with this Notice and are not eligible for fungibility under their MTW agreements. HUD–VASH vouchers must be reported on separately from vouchers under the agency's MTW Agreement.

j. Project-Based Assistance

Although HUD–VASH vouchers are tenant-based rental assistance, the Department will consider, on a case-by-case basis, requests from the PHA (with the support of the VAMC) to project-base these vouchers in accordance with 24 CFR part 983.

k. Section Eight Management Assessment Program (SEMAP)

Since leasing of HUD–VASH vouchers will be dependent on referrals from the VAMC, the unit months and budget authority associated with these vouchers will not be included in the SEMAP leasing indicator denominator. Therefore, 24 CFR 985.3(n)(1)(i) and (ii) are waived. However, utilization of these vouchers will be monitored separately through HUD systems.

**III. Reporting Requirements**

A new code (VASH) has been established for use on line 2n of the Family Report (form HUD–50058), which provides for an indication if the family participates in ''other special programs.'' The information collection requested on HUD–50058 has been approved by the Office of Management and Budget (OMB) and given OMB control number 2577–0083. No person is required to respond to, nor shall any person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act (PRA), unless that collection displays a currently valid OMB control number. This code must remain on the HUD–50058 for the duration of the HUD–VASH family's participation in the program. The PHA that administers the HUD–VASH voucher on behalf of the family (initial or receiving PHA under portability) must enter and maintain this code on the HUD–50058.

For any additional systems reporting requirements that may be established, HUD will provide further guidance.

Dated: May 1, 2008.

**Roy A. Bernardi,**

*Deputy Secretary.*

[FR Doc. 08–1220 Filed 5–1–08; 4:00 pm]

BILLING CODE 4210–67–P

## DEPARTMENT OF THE INTERIOR

### Bureau of Land Management

**[NV–050–5853-ES; N–82255 and N–84469; 8–08807; TAS: 14X5432]**

### Notice of Realty Action: Classification/Lease/Conveyance for Recreation and Public Purposes Act of Public Lands in Clark County, NV

**AGENCY:** Bureau of Land Management, Interior.

**ACTION:** Notice.

**SUMMARY:** The Bureau of Land Management (BLM) has examined and found suitable for classification for lease and subsequent conveyance under the provisions of the Recreation and Public Purposes (R&PP) Act, as amended, approximately 8.75 acres of public land in Clark County, Nevada. The St. Matthews Baptist Church proposes to use 5 acres of the land for a church, parking area, adult day care, athletic field, children's play area, landscaping, and related facilities. The Solid Rock Christian Church proposes to use 3.75 acres of the land for a house of worship, community learning/not-for-profit day care center, parking, and related facilities. The proposals by these two churches are distinguished as two distinct actions in this notice.

**DATES:** Interested parties may submit written comments regarding the proposed lease/conveyance or classification of the lands until June 20, 2008.

**ADDRESSES:** Mail written comments to the BLM Field Manager, Las Vegas Field Office, 4701 N. Torrey Pines Drive, Las Vegas, NV 89130.

**FOR FURTHER INFORMATION CONTACT:** Brenda Warner, (702) 515–5084.

**SUPPLEMENTARY INFORMATION:** In accordance with Section 7 of the Taylor Grazing Act, (43 U.S.C. 315f), and Executive Order No. 6910, the following described public land in Clark County, Nevada, has been examined and found suitable for classification for lease and subsequent conveyance under the provisions of the R&PP Act, as amended, (43 U.S.C. 869 *et seq.*):

**Case File Number N–82255—St. Matthews Baptist Church**

*Mount Diablo Meridian, Nevada*

T. 23 S., R. 61 E.,
Sec. 10, N½NW¼SW¼SW¼.
Containing 5 acres, more or less.

In accordance with the R&PP Act, the St. Matthews Baptist Church filed an application for the above described 5 acres of land to be developed as a church. The proposed church and related facilities include a 5,000 square foot sanctuary building (offices, classrooms, interior and exterior kitchen (barbecue area), restrooms, utility/storage rooms, and a lobby), septic field and well, sidewalks, landscaped areas, paved parking areas, adult day care, youth athletic fields, children's play area, and walking paths with rest and meditation areas. Construction of the facilities will take approximately five years or less and will begin shortly after the lease is authorized. Additional detailed information pertaining to this application, plan of development, and site plan is in case file N–82255 located in the BLM Las Vegas Field Office at the above address.

**Case File Number N–84469—Solid Rock Christian Church**

*Mount Diablo Meridian, Nevada*

T. 22 S., R. 61 E.,
Sec. 14, W½NW¼SW¼SW¼SE¼ and SW¼SW¼SW¼SE¼.
Containing 3.75 acres, more or less.

In accordance with the R&PP Act, the Solid Rock Christian Church filed an application for the above described 3.75 acres of land to be developed as a church. The proposed church and related facilities include a 15,000 square foot sanctuary building, community learning/not-for-profit day-care center, parking areas, and related facilities. Construction of the facilities will take approximately three years or less and will begin shortly after the lease is authorized. Additional detailed information pertaining to this application, plan of development, and site plan is in case file N–84469 located in the BLM Las Vegas Field Office at the above address.

Churches are a common applicant under the public purposes provision of the R&PP Act. The St. Matthews Baptist Church and the Solid Rock Christian Church are Internal Revenue Service registered non-profit organizations and are qualified applicants under the R&PP Act.

The land is not needed for any Federal purpose. The lease/conveyance of both cases is consistent with the Las Vegas Resource Management Plan, dated October 5, 1998, and would be in the public interest. The lease/conveyance of both cases, when issued, will be subject to the provisions of the R&PP Act and applicable regulations of the Secretary of the Interior, and will contain the following reservations to the United States:

1. A right-of-way thereon for ditches or canals constructed by the authority of the United States, Act of August 30, 1890 (43 U.S.C. 945); and

2. All minerals, together with the right to prospect for, mine, and remove such deposits from the same under applicable law and such regulations as the Secretary of the Interior may prescribe.

The lease/conveyance of N–82255 will also be subject to:

1. Valid existing rights; and

2. Right-of-way N–77148 for road, drainage, and municipal facility purposes granted to the City of Henderson, its successors or assigns, pursuant to the Act of October 21, 1976 (43 U.S.C. 1761).

The lease/conveyance of N–84469 will also be subject to:

1. Valid existing rights;

2. Rights-of-way N–06486 and N–79652 for communication facility purposes granted to the Central Telephone Company, its successors or assigns, pursuant to the Act of October 21, 1976 (43 U.S.C. 1761); and

5. Right-of-way N–50183 for road and drainage purposes granted to Clark County, its successors or assigns, pursuant to the Act of October 21, 1976 (43 U.S.C. 1761).

On May 6, 2008, the land described above will be segregated from all other forms of appropriation under the public land laws, including the general mining laws, except for lease/conveyance under the R&PP Act, leasing under the mineral leasing laws, and disposals under the mineral material disposal laws.

Interested parties may submit comments involving the suitability of the land for churches and related facilities. Comments on the classification are restricted to whether the land is physically suited for the proposals, whether the use will maximize the future use or uses of the land, whether the use is consistent with local planning and zoning, or if the use is consistent with State and Federal programs.

Interested parties may submit comments regarding each proposed decisions for the two R&PP applications and plans of development, whether the BLM followed proper administrative procedures in reaching the decision to lease/convey under the R&PP Act, or any other factor not directly related to the suitability of the land for R&PP use.

Please be specific as to which of these two proposals is the subject of any comments submitted; St. Matthews Baptist Church and the Solid Rock Christian Church are considered two distinct authorizations under the R&PP Act.

Before including your address, phone number, e-mail 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.

Only written comments submitted by postal service or overnight mail to the Field Manager, BLM Las Vegas Field Office, will be considered properly filed. Electronic mail, facsimile, or telephone comments will not be considered properly filed. Comments, including names and addresses of respondents, will be available for public review. Before including your address, telephone number, e-mail address, or other personal identifying information in your comment, be advised 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.

Any adverse comments will be reviewed by the BLM Nevada State Director. In the absence of any adverse comments, the classification of the land described in this notice will become effective on July 7, 2008. The lands will not be available for lease/conveyance until after the classification becomes effective.

**Authority:** 43 CFR 2741.5.

Dated: April 18, 2008.

**Kimber Liebhauser,**

*Assistant Las Vegas Field Manager, Division of Lands.*

[FR Doc. E8–9932 Filed 5–5–08; 8:45 am]

BILLING CODE 4310–HC–P

## DEPARTMENT OF THE INTERIOR

### Bureau of Land Management

**[WY–957–08–1420–BJ–TRST]**

### Notice of Filing of Plats of Survey, Wyoming

**AGENCY:** Bureau of Land Management, Interior.

**SUMMARY:** The Bureau of Land Management (BLM) is scheduled to file the plats of survey of the lands described below thirty (30) calendar days from the date of this publication in the BLM Wyoming State Office, Cheyenne, Wyoming.

**FOR FURTHER INFORMATION CONTACT:** Bureau of Land Management, 5353 Yellowstone Road, P.O. Box 1828, Cheyenne, Wyoming 82003.

**SUPPLEMENTARY INFORMATION:** This survey was executed at the request of the Bureau of Indian Affairs and is necessary for the management of these lands. The lands surveyed are:

The plat and field notes representing the dependent resurvey of portions of the Wind River Base Line, through Range 2 East, subdivisional lines and subdivision of section lines, and the survey of the subdivision of section 5, Township 1 South, Range 2 East, of the Wind River Meridian, Wyoming, Group No. 774, was accepted April 14, 2008.

The plat and field notes representing the dependent resurvey of a portion of the subdivisional lines and a portion of the subdivision of section 5, and the survey of the subdivision of section 5, and the metes and bounds survey of Parcel A, section 5, Township 1 South, Range 1 West, of the Wind River Meridian, Wyoming, Group No. 775, was accepted April 16, 2008.

The plat and field notes representing the dependent resurvey of portions of the west boundary of the Wind River Indian Reservation, the north boundary, subdivisional lines and the adjusted meanders of the right bank of the Wind River, and the survey of the subdivision of section 3, and the metes and bounds survey of Parcels A and B, section 3, Township 5 North, Range 6 West, of the Wind River Meridian, Wyoming, Group No. 776, was accepted April 21, 2008.

The plat and field notes representing the dependent resurvey of portions of the subdivisional lines and subdivision of section 30, Township 1 North, Range 1 West, of the Wind River Meridian, Wyoming, Group No. 780, was accepted April 25, 2008.

The plat and field notes representing the dependent resurvey of portions of the subdivisional lines and subdivision of section 25, Township 1 North, Range 2 West, of the Wind River Meridian, Wyoming, Group No. 781, was accepted April 25, 2008.

Copies of the preceding described plat and field notes are available to the public at a cost of $1.10 per page.

Dated: April 30, 2008.

**John P. Lee,**

*Chief Cadastral Surveyor, Division of Support Services.*

[FR Doc. E8–9931 Filed 5–5–08; 8:45 am]

BILLING CODE 4467–22–P

## DEPARTMENT OF THE INTERIOR

### Bureau of Land Management

**[OR–130–1020–AL; GP8–0098]**

### Notice of Public Meeting, Eastern Washington Resource Advisory Council Meeting

**AGENCY:** Bureau of Land Management, U.S. Department of the Interior.

**ACTION:** Notice of Public Meeting.

**SUMMARY:** In accordance with the Federal Land Policy and Management Act of 1976 and the Federal Advisory Committee Act of 1972, the U.S. Department of the Interior, Bureau of Land Management (BLM) Eastern Washington Resource Advisory Council will meet as indicated below.

**DATES:** Thursday, June 5th, 2008, at the BLM Spokane District Office, 1103 N. Fancher Rd., Spokane Valley, WA 99212.

**SUPPLEMENTARY INFORMATION:** The meeting will start at 9 a.m., and end at approximately 3:30 p.m. The meeting will be open to the public and there will be an opportunity for public comments at 2:30 p.m. Discussion will focus on the status of projects of interest and identification of topics for future meetings.

**FOR FURTHER INFORMATION CONTACT:** Scott Pavey or Sandie Gourdin, BLM, Spokane District, 1103 N. Fancher Rd., Spokane Valley, WA 99212, or call (509) 536–1200.

Dated April 30, 2008.

**Robert B. Towne,**

*District Manager.*

[FR Doc. E8–9918 Filed 5–5–08; 8:45 am]

BILLING CODE 4310–33–P

## INTERNATIONAL TRADE COMMISSION

**[Investigation Nos. 701–TA–415 and 731–TA–933 and 934 (Review)]**

### Polyethylene Terephthalate Film, Sheet, and Strip From India and Taiwan

#### Determinations

On the basis of the record [1] developed in the subject five-year reviews, the United States International Trade Commission (Commission) determines, pursuant to section 751(c) of the Tariff Act of 1930 (19 U.S.C. § 1675(c)), that revocation of the countervailing duty order on polyethylene terephthalate film, sheet, and strip from India and the antidumping duty orders on polyethylene terephthalate film, sheet, and strip from India and Taiwan would be likely to lead to continuation or recurrence of material injury to an industry in the United States within a reasonably foreseeable time.

#### Background

The Commission instituted these reviews on June 1, 2007 (72 FR 30627) and determined on September 4, 2007 that it would conduct full reviews (72 FR 52582, September 14, 2007). Notice of the scheduling of the Commission's reviews and of a public hearing to be held in connection therewith was given by posting copies of the notice in the Office of the Secretary, U.S. International Trade Commission, Washington, DC, and by publishing the notice in the **Federal Register** on November 5, 2007 (72 FR 64089, November 14, 2007). The hearing was held in Washington, DC, on February 20, 2008, and all persons who requested the opportunity were permitted to appear in person or by counsel.

The Commission transmitted its determinations in these reviews to the Secretary of Commerce on April 25, 2008. The views of the Commission are contained in USITC Publication 3994 (April 2008), entitled *Polyethylene Terephthalate Film, Sheet, and Strip from India and Taiwan: Investigation Nos. 701–TA–415 and 731–TA–933 and 934 (Review).*

By order of the Commission.

Issued: April 30, 2008.

**Marilyn R. Abbott,**

*Secretary to the Commission.*

[FR Doc. E8–9935 Filed 5–5–08; 8:45 am]

BILLING CODE 7020–02–P

[1] The record is defined in sec. 207.2(f) of the Commission's Rules of Practice and Procedure (19 CFR § 207.2(f)).

## DEPARTMENT OF JUSTICE

### Notice of the Availability of the Record of Decision Concerning a Proposal To Develop a Federal Correctional Complex in the Aliceville, AL Area

**AGENCY:** U.S. Department of Justice, Federal Bureau of Prisons.

**ACTION:** Notice of a Record of Decision.

**SUMMARY:** Notice of the Availability of the Record of Decision.

The U.S. Department of Justice, Federal Bureau of Prisons (BOP) announces the availability of the Record of Decision (ROD) concerning the Final Environmental Impact Statement (EIS) for the proposed development of a Federal Correctional Complex (FCC) in the Aliceville, Alabama area.

**Background Information**

Pursuant to Section 102, 42 U.S.C. 4332, of the National Environmental Policy Act (NEPA) of 1969, as amended and the Council on Environmental Quality Regulations (40 CFR Parts 1500–1508), BOP has prepared Draft and Final EISs concerning a proposal to develop a FCC comprising one or more minimum-, medium-, and high-security correctional facilities. Initial development of the FCC would consist of a Federal Correctional Institution (FCI) to house approximately 1,500 adult inmates along with ancillary facilities including administrative structures, a prison industry facility, a satellite work camp to house approximately 250 adult inmates, and staff training facilities.

**Project Information**

The BOP is responsible for carrying out judgements of the Federal courts whenever a period of confinement is ordered. Subsequently, the mission of the BOP is to protect society by confining offenders in the controlled environments of prisons and community-based facilities that are safe, humane, cost-efficient, and appropriately secure, and that provide work and other self-improvement opportunities to assist offenders in becoming law-abiding citizens. Approximately 166,000 inmates are currently housed within the 114 federal correctional facilities that have levels of security ranging from minimum to maximum; a number exceeding the combined rated capacities of all federal correctional facilities. Measures being taken to manage the growth of the federal inmate population include acquisition and adaptation of facilities originally intended for other purposes, the expansion and improvement of existing correctional facilities, and the expanded use of contract beds together with construction of new institutions. Adding capacity through these means allows the BOP to work toward the long-term goal of reduced system-wide crowding. The BOP is facing an especially challenging situation in that the number of inmates originating from the southeastern United States has grown substantially. As a result, the BOP manages many inmates from the southeastern-most United States in facilities throughout the Southeast Region and beyond. Provision of additional bedspace in the Aliceville, Alabama area would allow the BOP to manage inmates originating from the southeastern-most states nearer their families and friends which aids in the rehabilitative process.

The proposed action in the Aliceville, Alabama area is part of the BOP's comprehensive expansion effort and would consist of the construction and operation of a FCC. The principal function of the FCC would be to provide a safe, secure, and humane environment for the care and custody of federal inmates, primarily from the southeastern region of the country. Development of the proposed facility will necessitate the acquisition of approximately 1,270 acres of land by the BOP.

The BOP evaluated alternatives as part of the EIS including the No Action Alternative, development of the proposed project at alternative locations nationwide, and development of the proposed project at one of two alternative sites located near the City of Aliceville in Pickens County, Alabama. Each of the alternative sites is examined in detail in the Draft and Final EISs with development of the proposed project at the North Site identified by the Draft and Final EISs as the Preferred Alternative.

The BOP issued a Draft EIS on October 20, 2007, with publication of the Notice of Availability (NOA) in the **Federal Register** on October 27, 2007. The NOA provided a start date for the 45-day public comment period beginning on October 27, 2007, and ending on December 10, 2007. During the public comment period a public hearing concerning the proposed action and the Draft EIS was held in Aliceville, Alabama on November 15, 2007. Approximately 214 individuals attended the public hearing.

The Final EIS addressed comments received on the Draft EIS, and publication of the NOA in the **Federal Register** concerning the Final EIS occurred on February 22, 2008. The 30-day review period for receipt of public comments concerning the Final EIS ended on March 24, 2008. Approximately 40 comment letters were received during the public review period on the Final EIS. Each of the comment letters were similar to comments received on the Draft EIS and were considered in the decision presented in the ROD.

BOP provided written notices of the availability of the Draft EIS and Final EIS in the **Federal Register**, in two newspapers with local and regional circulations, and through three local public libraries. The BOP also distributed approximately 200 copies (each) of the Draft EIS and Final EIS to federal agencies, state and local governments, elected officials, interested organizations, and individuals.

**Availability of Record of Decision**

The Record of Decision and other information regarding this project are available upon request. To request a copy of the Notice of Availability, please contact: Pamela J. Chandler, Chief, or Issac J. Gaston, Site Selection Specialist, Site Selection and Environmental Review Branch, Federal Bureau of Prisons, 320 First Street, NW., Washington, DC 20534 Tel: 202–514–6470/Fax: 202–616–6024/E-mail: *pchandler@bop.govigaston@bop.gov.*

**FOR FURTHER INFORMATION CONTACT:** Pamela J. Chandler, Issac J. Gaston, Federal Bureau of Prisons.

Dated: April 29, 2008.

**Issac J. Gaston,**

*Site Selection Specialist, Site Selection and Environmental Review Branch.*

[FR Doc. E8–9881 Filed 5–5–08; 8:45 am]

BILLING CODE 4410–50–P

## DEPARTMENT OF JUSTICE

### Notice of Lodging of Consent Decree Under the Comprehensive Environmental Response, Compensation and Liability Act

In accordance with Departmental policy, 28 CFR 50.7 and section 122(d)(2) of the Comprehensive Environmental Response, Compensation and Liability Act (''CERCLA''), 42 U.S.C. 9622(d)(2), notice is hereby given that on April 29, 2008 a proposed consent decree in *United States* v. *Teledyne Technologies Incorporated,* Civil Action No. 3:08–cv–1085, was lodged with the United States District Court for the Northern District of Ohio.

In this action, brought against Teledyne Technologies Incorporated (''Teledyne'') pursuant to Section 107 of CERCLA, 42 U.S.C. 9607, the United

States sought the recovery of response costs incurred by the United States in connection with actual and threatened releases of hazardous substances at and from the former Naval Weapons Industrial Reserve Plant—Toledo (''Facility''), a facility located in Toledo, Ohio that was formerly owned by the United States and that was and continues to be operated by Teledyne. The consent decree resolves claims of the United States against Teledyne and TDY Industries, Inc. (a predecessor for whom Teledyne has assumed liability) pursuant to sections 106 and 107(a) of CERCLA, 42 U.S.C. 9606 and 9607(a), for the recovery of Navy response costs and the work to be performed under the consent decree at the Facility. The consent decree requires Teledyne to pay the United States $525,000 for past response costs incurred by the Navy in connection with the Site. Under the consent decree, Teledyne is also obligated to perform further response actions necessary to achieve regulatory closure by obtaining an Ohio Covenant Not To Sue for the Facility by the State of Ohio pursuant to Chapter 3746 of the Ohio Revised Code, and implementing regulation, otherwise known as the Ohio Voluntary Action Program (''VAP''), or Brownfield Program, in the event that the Toledo-Lucas County Port Authority, the current owner of the Facility, does not achieve regulatory closure by obtaining an Ohio Covenant Not to Sue using a Federal grant, pursuant to the authority of FY 2006 Appropriations Act (Pub. L. 109–148), administered by the Department of Defense's Office of Economic Adjustment.

The Department of Justice will receive, for a period of thirty (30) days from the date of this publication, comments relating to the consent decree. Comments should be addressed to the Assistant Attorney General, Environment and Natural Resources Division, and either emailed to *pubcomment-ees@usdoj.gov* or mailed to P.O. Box 7611, United States Department of Justice, Washington, DC 20044–7611, and should refer to *United States* v. *Teledyne Technologies Incorporated,* D.J. Ref. 90–11–2–08320.

The consent decree may be examined at the Office of the United States Attorney, Four Seagate, Suite 308, Toledo, Ohio 43604. During the public comment period, the consent decree may also be examined on the following Justice Department Web site, *http://www.usdoj.gov/enrd/Consent_Decrees.html.* A copy of the consent decree may also be obtained by mail from the Consent Decree Library, P.O. Box 7611, U.S. Department of Justice, Washington, DC 20044–7611 or by faxing or e-mailing a request to Tonia Fleetwood (*tonia.fleetwood@usdoj.gov*), fax no. (202) 514–0097, phone confirmation number (202) 514–1547. In requesting a copy from the Consent Decree Library, please enclose a check in the amount of $14.50 (25 cents per page reproduction cost) payable to the U.S. Treasury or, if by e-mail or fax, forward a check in that amount to the Consent Decree Library at the stated address.

**William D. Brighton,**

*Assistant Chief, Environmental Enforcement Section, Environment and Natural Resources Division.*

[FR Doc. E8–9893 Filed 5–5–08; 8:45 am]

**BILLING CODE 4410–15–P**

## DEPARTMENT OF LABOR

### Employment Standards Administration

### Proposed Extension of the Approval of Information Collection Requirements

**ACTION:** Notice.

**SUMMARY:** The Department of Labor, as part of its continuing effort to reduce paperwork and respondent burden, conducts a pre-clearance consultation program to provide the general public and Federal agencies with an opportunity to comment on proposed and/or continuing collections of information in accordance with the Paperwork Reduction Act of 1995 (PRA95) [44 U.S.C. 3506(c)(2)(A)]. This program helps to ensure that requested data can be provided in the desired format, reporting burden (time and financial resources) is minimized, collection instruments are clearly understood, and the impact of collection requirements on respondents can be properly assessed. Currently, the Employment Standards Administration is soliciting comments concerning the proposed collection: Office of Federal Contract Compliance Programs Recordkeeping and Reporting Requirements, Supply and Service. A copy of the proposed information collection request can be obtained by contacting the office listed below in the **ADDRESSES** section of this Notice.

**DATES:** Written comments must be submitted to the office listed in the **ADDRESSES** section below on or before July 7, 2008.

**ADDRESSES:** Ms. Hazel M. Bell, U.S. Department of Labor, 200 Constitution Ave., NW., Room S–3201, Washington, DC 20210, telephone (202) 693–0418, fax (202) 693–1451, e-mail *bell.hazel@dol.gov.* Please use only one method of transmission for comments (mail, fax, or e-mail).

**SUPPLEMENTARY INFORMATION:**

*I. Background:* The Office of Federal Contract Compliance Programs (OFCCP) is responsible for the administration of three equal opportunity programs prohibiting employment discrimination and requiring affirmative action. The OFCCP administers Executive Order 11246, as amended; section 503 of the Rehabilitation Act of 1973, as amended; and the affirmative action provisions of the Vietnam Era Veterans' Readjustment Assistance Act of 1974, as amended (VEVRAA), 38 U.S.C. 4212. The regulations implementing the Executive Order program are found at 41 CFR parts 60–1, 60–2, 60–3, 60–4, 60–20, 60–30, 60–40, and 60–50. The regulations implementing section 503 are published at 41 CFR part 60–741. The regulations implementing VEVRAA are found at 41 CFR part 60–250. These regulations require contractors to develop and maintain Affirmative Action Programs (AAP). OFCCP reviews these AAPs through its compliance evaluation process. The Supply and Service Scheduling Letter provides the contractor notice of its selection for a compliance evaluation and requests the submission of its Affirmative Action Programs and supporting documentation.

OFCCP published a Final Rule on August 8, 2007, with an effective date of September 7, 2007, that adopts new regulations implementing the Jobs for Veterans Act amendments to the affirmative action provisions of VEVRAA. The new regulations are codified in a new 41 CFR part 60–300.

In addition, OFCCP published a Final Rule on June 22, 2005, with a July 22, 2005, effective date, revising the regulations implementing section 503 of the Rehabilitation Act of 1973, as amended, to authorize the use of the compliance evaluation approach to determine a contractor's compliance with section 503. Neither Final Rule made any changes in burden hours associated with the Scheduling Letter. This information collection is currently approved for use through November 30, 2008.

*II. Review Focus:* The Department of Labor is particularly interested in comments which:

- 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;
- 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;

• Enhance the quality, utility and clarity of the information to be collected; and

• 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.

*III. Current Actions:* OFCCP seeks a three-year extension on the approval of the Supply and Service Scheduling Letter in order to carry out its responsibility to ensure that contractors develop and maintain Affirmative Action Programs.

*Type of Review:* Extension.

*Agency:* Employment Standards Administration.

*Title:* OFCCP Recordkeeping and Reporting Requirements, Supply and Service.

*OMB Number:* 1215–0072.

*Affected Public:* Business or other for-profit, not-for-profit institutions.

*Total Respondents:* 99,028.

*Total Annual Responses:* 99,028.

*Estimated Average Time per Response:* 101 hours.

*Estimated Total Burden Hours:* 10,045,984.

*Frequency:* Annually.

*Total Burden Cost (capital/startup):* $0.

*Total Burden Cost (operating/maintenance):* $120,019.

Comments submitted in response to this notice will be summarized and/or included in the request for Office of Management and Budget approval of the information collection request; they will also become a matter of public record.

Dated: May 1, 2008.

**Steve Andoseh,**

*Acting Chief, Branch of Management Review and Internal Control, Division of Financial Management, Office of Management, Administration and Planning, Employment Standards Administration.*

[FR Doc. E8–9915 Filed 5–5–08; 8:45 am]

BILLING CODE 4510–CM–P

## NATIONAL ARCHIVES AND RECORDS ADMINISTRATION

### Agency Information Collection Activities: Submission for OMB Review; Comment Request

**AGENCY:** National Archives and Records Administration (NARA).

**ACTION:** Notice.

**SUMMARY:** NARA is giving public notice that the agency has submitted to OMB for approval the information collection described in this notice. The public is invited to comment on the proposed information collection pursuant to the Paperwork Reduction Act of 1995.

**DATES:** Written comments must be submitted to OMB at the address below on or before June 5, 2008 to be assured of consideration.

**ADDRESSES:** Send comments to Desk Officer for NARA, Office of Management and Budget, New Executive Office Building, Washington, DC 20503; fax: 202–395–5167.

**FOR FURTHER INFORMATION CONTACT:** Requests for additional information or copies of the proposed information collection and supporting statement should be directed to Tamee Fechhelm at telephone number 301–837–1694 or fax number 301–713–7409.

**SUPPLEMENTARY INFORMATION:** Pursuant to the Paperwork Reduction Act of 1995 (Pub. L. 104–13), NARA invites the general public and other Federal agencies to comment on proposed information collections. NARA published a notice of proposed collection for this information collection on February 28, 2008 (73 FR 10825). No comments were received. NARA has submitted the described information collection to OMB for approval.

In response to this notice, comments and suggestions should address one or more of the following points: (a) Whether the proposed information collection is necessary for the proper performance of the functions of NARA; (b) the accuracy of NARA'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 information technology; and (e) whether small businesses are affected by this collection. In this notice, NARA is soliciting comments concerning the following information collection:

*Title:* Presidential Library Facilities.

*OMB Number:* 3095–0036.

*Agency Form Number:* None.

*Type of Review:* Regular.

*Affected Public:* Presidential library foundations or other entities proposing to transfer a Presidential library facility to NARA.

*Estimated Number of Respondents:* 1.

*Estimated Time per Response:* 31 hours.

*Frequency of Response:* On occasion.

*Estimated Total Annual Burden Hours:* 31 hours.

*Abstract:* The information collection is required for NARA to meet its obligations under 44 U.S.C. 2112(a)(3) to submit a report to Congress before accepting a new Presidential library facility. The report contains information that can be furnished only by the foundation or other entity responsible for building the facility and establishing the library endowment.

Dated: April 30, 2008.

**Martha Morphy,**

*Assistant Archivist for Information Services.*

[FR Doc. E8–9944 Filed 5–5–08; 8:45 am]

BILLING CODE 7515–01–P

## NATIONAL SCIENCE FOUNDATION

### Notice of Permit Applications Received Under the Antarctic Conservation Act of 1978 (Pub. L. 95–541)

**AGENCY:** National Science Foundation.

**ACTION:** Notice of Permit Applications Received under the Antarctic Conservation Act of 1978, Public Law 95–541.

**SUMMARY:** The National Science Foundation (NSF) is required to publish notice of permit applications received to conduct activities regulated under the Antarctic Conservation Act of 1978. NSF has published regulations under the Antarctic Conservation Act at Title 45 Part 670 of the Code of Federal Regulations. This is the required notice of permit applications received.

**DATES:** Interested parties are invited to submit written data, comments, or views with respect to this permit application by June 5, 2008. This application may be inspected by interested parties at the Permit Office, address below.

**ADDRESSES:** Comments should be addressed to Permit Office, Room 755, Office of Polar Programs, National Science Foundation, 4201 Wilson Boulevard, Arlington, Virginia 22230.

**FOR FURTHER INFORMATION CONTACT:** Nadene G. Kennedy at the above address or (703) 292–7405.

**SUPPLEMENTARY INFORMATION:** The National Science Foundation, as directed by the Antarctic Conservation Act of 1978 (Pub. L. 95–541), as amended by the Antarctic Science, Tourism and Conservation Act of 1996, has developed regulations for the establishment of a permit system for various activities in Antarctica and designation of certain animals and certain geographic areas a requiring special protection. The regulations establish such a permit system to

designate Antarctic Specially Protected Areas.

The applications received are as follows:

**Permit Application No. 2009–003.**

1. *Applicant:* Sam Feola, Director, Raytheon Polar Services Company, 7400 South Tucson Way, Centennial, CO 80112.

*Activity for Which Permit Is Requested:* Enter Antarctic Specially Protected Areas. The applicant plans to enter Cape Crozier (ASPA 124) to install radio equipment that will provide voice and data services for the science team working in the area. Equipment will be located in the fish hut, as well as a small radio link located approximately 100 yards away on the ridge facing Mt. Terror. Additional visits to the site may be necessary to repair the communications equipment should a failure of the radio links occur.

*Location:* Cape Crozier (ASPA 124).

*Dates:* October 1, 2008 to February 18, 2009.

**Permit Application No. 2009–004.**

2. *Applicant:* Sam Feola, Director, Raytheon Polar Services Company, 7400 South Tucson Way, Centennial, CO 80112.

*Activity for Which Permit Is Requested:* Enter Antarctic Specially Protected Areas. The applicant plans to enter New College Valley, Caughley Beach, Cape Bird (ASPA 116) to install radio equipment that will provide voice and data services for the science team working in the area. Equipment will be located in the fish hut, as well as a small radio link located approximately 75 yards away on the ridge nearest Mt. Bird. Additional visits to the site may be necessary to repair the communications equipment should a failure of the radio links occur.

*Location:* New College Valley, Caughley Beach, Cape Bird (ASPA 116).

*Dates:* October 1, 2008 to February 18, 2009.

**Nadene G. Kennedy,**

*Permit Officer, Office of Polar Programs.*

[FR Doc. E8–9943 Filed 5–5–08; 8:45 am]

BILLING CODE 7555–01–P

## NUCLEAR REGULATORY COMMISSION

**[Docket Nos. 50–282 And 50–306]**

## Nuclear Management Company, LLC; Notice of Receipt and Availability of Application for Renewal of Prairie Island Nuclear Generating Plant, Units 1 and 2 Facility Operating Licenses Nos. DPR–42 and DPR–60 for an Additional 20-Year Period

The U.S. Nuclear Regulatory Commission (NRC or Commission) has received an application, dated April 15, 2008, from Nuclear Management Company, LLC, filed pursuant to Section 104b of the Atomic Energy Act of 1954, as amended, and Title 10 of the Code of Federal Regulations Part 54 (10 CFR Part 54), to renew the operating license for the Prairie Island Nuclear Generating Plant, Units 1 and 2 (PINGP). Renewal of the licenses would authorize the applicant to operate the facilities for an additional 20-year period beyond the period specified in the current operating licenses. The current operating licenses for PINGP (DPR–42 and DPR–60) expire on August 09, 2013, and October 29, 2014, respectively. PINGP Units 1 and 2 are pressurized-water reactors designed by Westinghouse that are located 28 miles Southeast of Minneapolis, MN. The acceptability of the tendered application for docketing, and other matters including an opportunity to request a hearing, will be the subject of subsequent **Federal Register** notices.

Copies of the application are available to the public at the Commission's Public Document Room (PDR), located at One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852 or through the internet from the NRC's Agencywide Documents Access and Management System (ADAMS) Public Electronic Reading Room under Accession Number ML081050100. The ADAMS Public Electronic Reading Room is accessible from the NRC Web site at *http://www.nrc.gov/reading-rm/adams.html.* In addition, the application is available at *http://www.nrc.gov/reactors/operating/licensing/renewal/applications.html.* Persons who do not have access to the internet or who encounter problems in accessing the documents located in ADAMS should contact the NRC's PDR Reference staff at 1–800–397–4209, extension 4737, or by e-mail to *pdr@nrc.gov.*

A copy of the license renewal application for the PINGP is also available to local residents near the site at the Red Wing Public Library, 225 East Avenue, Red Wing, MN 55066.

Dated at Rockville, Maryland, this 28th day of April, 2008.

For the Nuclear Regulatory Commission.

**Samson Lee,**

*Acting Director, Division of License Renewal, Office of Nuclear Reactor Regulation.*

[FR Doc. E8–9939 Filed 5–5–08; 8:45 am]

BILLING CODE 7590–01–P

## NUCLEAR REGULATORY COMMISSION

## Biweekly Notice; Applications and Amendments to Facility Operating Licenses Involving No Significant Hazards Considerations

### I. Background

Pursuant to section 189a. (2) of the Atomic Energy Act of 1954, as amended (the Act), the U.S. Nuclear Regulatory Commission (the Commission or NRC staff) is publishing this regular biweekly notice. The Act requires the Commission 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 upon a determination by the Commission that such amendment involves no significant hazards consideration, notwithstanding the pendency before the Commission of a request for a hearing from any person.

This biweekly notice includes all notices of amendments issued, or proposed to be issued from April 10 to April 23, 2008. The last biweekly notice was published on April 22, 2008 (73 FR 21567).

### Notice of Consideration of Issuance of Amendments to Facility Operating Licenses, Proposed No Significant Hazards Consideration Determination, and Opportunity for a Hearing

The Commission has made a proposed determination that the following amendment requests involve no significant hazards consideration. Under the Commission's regulations in 10 CFR 50.92, this means that operation of the facility in accordance with the proposed amendment 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 basis for this proposed determination for each amendment request is shown below.

The Commission is seeking public comments on this proposed determination. Any comments received

within 30 days after the date of publication of this notice will be considered in making any final determination.

Normally, the Commission will not issue the amendment until the expiration of 60 days after the date of publication of this notice. The Commission may issue the license amendment before expiration of the 60-day period provided that its final determination is that the amendment involves no significant hazards consideration. In addition, the Commission may issue the amendment prior to the expiration of the 30-day comment period should 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. Should the Commission take action prior to the expiration of either the comment period or the notice period, it will publish in the **Federal Register** a notice of issuance. Should the Commission make a final No Significant Hazards Consideration Determination, any hearing will take place after issuance. The Commission expects that the need to take this action will occur very infrequently.

Written comments may be submitted by mail to the Chief, Rulemaking, Directives and Editing Branch, Division of Administrative Services, Office of Administration, U.S. Nuclear Regulatory Commission, Washington, DC 20555–0001, and should cite the publication date and page number of this **Federal Register** notice. Written comments may also be delivered to Room 6D22, Two White Flint North, 11545 Rockville Pike, Rockville, Maryland, from 7:30 a.m. to 4:15 p.m. Federal workdays. Copies of written comments received may be examined at the Commission's Public Document Room (PDR), located at One White Flint North, Public File Area O1F21, 11555 Rockville Pike (first floor), Rockville, Maryland. The filing of requests for a hearing and petitions for leave to intervene is discussed below.

Within 60 days after the date of publication of this notice, person(s) may file a request for a hearing with respect to issuance of the amendment to the subject facility operating license and any person whose interest may be affected by this proceeding and who wishes to participate as a party in the proceeding must file a written request via electronic submission through the NRC E-Filing system for a hearing and a petition for leave to intervene. Requests for a hearing and a petition for leave to intervene shall be filed in accordance with the Commission's ''Rules of Practice for Domestic Licensing Proceedings'' in 10 CFR Part 2. Interested person(s) should consult a current copy of 10 CFR 2.309, which is available at the Commission's PDR, located at One White Flint North, Public File Area 01F21, 11555 Rockville Pike (first floor), Rockville, Maryland. Publicly available records will be accessible from the Agencywide Documents Access and Management System's (ADAMS) Public Electronic Reading Room on the Internet at the NRC Web site, *http://www.nrc.gov/reading-rm/doc-collections/cfr/.* If a request for a hearing or petition for leave to intervene is filed within 60 days, the Commission or a presiding officer designated by the Commission or by the Chief Administrative Judge of the Atomic Safety and Licensing Board Panel, will rule on the request and/or petition; and the Secretary or the Chief Administrative Judge of the Atomic Safety and Licensing Board will issue a notice of a hearing or an appropriate order.

As required by 10 CFR 2.309, a petition for leave to intervene shall set forth with particularity the interest of the petitioner in the proceeding, and how that interest may be affected by the results of the proceeding. The petition should specifically explain the reasons why intervention should be permitted with particular reference to the following general requirements: (1) The name, address, and telephone number of the requestor or petitioner; (2) the nature of the requestor's/petitioner's right under the Act to be made a party to the proceeding; (3) the nature and extent of the requestor's/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 requestor's/petitioner's interest. The petition must also set forth the specific contentions which the petitioner/requestor seeks to have litigated at 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/requestor shall provide a brief explanation of the bases for the contention and a concise statement of the alleged facts or expert opinion which support the contention and on which the petitioner/requestor intends to rely in proving the contention at the hearing. The petitioner/requestor must also provide references to those specific sources and documents of which the petitioner is aware and on which the petitioner/requestor intends to rely to establish those facts or expert opinion. The petition must include sufficient information to show that a genuine dispute exists with the applicant on a material issue of law or fact. Contentions shall be limited to matters within the scope of the amendment under consideration. The contention must be one which, if proven, would entitle the petitioner/requestor to relief. A petitioner/requestor who fails to satisfy these requirements 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, and have the opportunity to participate fully in the conduct of the hearing.

If a hearing is requested, and the Commission has not made a final determination on the issue of no significant hazards consideration, the Commission will make a final determination on the issue of no significant hazards consideration. The final determination will serve to decide when the hearing is held. If the final determination is that the amendment request involves no significant hazards consideration, the Commission may issue the amendment and make it immediately effective, notwithstanding the request for a hearing. Any hearing held would take place after issuance of the amendment. If the final determination is that the amendment request involves a significant hazards consideration, any hearing held would take place before the issuance of any amendment.

A request for hearing or a petition for leave to intervene must be filed in accordance with the NRC E-Filing rule, which the NRC promulgated in August 28, 2007 (72 FR 49139). The E-Filing process requires participants to submit and serve documents over the internet or in some cases to mail copies on electronic storage media. Participants may not submit paper copies of their filings unless they seek a waiver in accordance with the procedures described below.

To comply with the procedural requirements of E-Filing, at least five (5) days prior to the filing deadline, the petitioner/requestor must contact the Office of the Secretary by e-mail at *hearingdocket@nrc.gov*, or by calling (301) 415–1677, to request (1) a digital ID certificate, which allows the participant (or its counsel or representative) to digitally sign documents and access the E-Submittal server for any proceeding in which it is participating; and/or (2) creation of an electronic docket for the proceeding (even in instances in which the petitioner/requestor (or its counsel or

representative) already holds an NRC-issued digital ID certificate). Each petitioner/requestor will need to download the Workplace Forms Viewer™ to access the Electronic Information Exchange (EIE), a component of the E-Filing system. The Workplace Forms Viewer™ is free and is available at *http://www.nrc.gov/site-help/e-submittals/install-viewer.html.* Information about applying for a digital ID certificate is available on NRC's public Web site at *http://www.nrc.gov/site-help/e-submittals/apply-certificates.html.*

Once a petitioner/requestor has obtained a digital ID certificate, had a docket created, and downloaded the EIE viewer, it can then submit a request for hearing or petition for leave to intervene. Submissions should be in Portable Document Format (PDF) in accordance with NRC guidance available on the NRC public Web site at *http://www.nrc.gov/site-help/e-submittals.html.* A filing is considered complete at the time the filer submits its documents through EIE. To be timely, an electronic filing must be submitted to the EIE system no later than 11:59 p.m. Eastern Time on the due date. Upon receipt of a transmission, the E-Filing system time-stamps the document and sends the submitter an e-mail notice confirming receipt of the document. The EIE system also distributes an e-mail notice that provides access to the document to the NRC 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 documents on those participants separately. Therefore, applicants and other participants (or their counsel or representative) must apply for and receive a digital ID certificate before a hearing request/petition to intervene is filed so that they can obtain access to the document via the E-Filing system.

A person filing electronically may seek assistance through the ''Contact Us'' link located on the NRC Web site at *http://www.nrc.gov/site-help/e-submittals.html* or by calling the NRC technical help line, which is available between 8:30 a.m. and 4:15 p.m., Eastern Time, Monday through Friday. The help line number is (800) 397–4209 or locally, (301) 415–4737.

Participants who believe that they have a good cause for not submitting documents electronically must file a motion, in accordance with 10 CFR 2.302(g), with their initial paper filing requesting authorization to continue to submit documents in paper format. Such filings must be submitted by: (1) First class mail addressed to the Office of the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, DC 20555–0001, Attention: Rulemaking and Adjudications Staff; or (2) courier, express mail, or expedited delivery service to the Office of the Secretary, Sixteenth Floor, One White Flint North, 11555 Rockville Pike, Rockville, Maryland, 20852, *Attention*: Rulemaking and Adjudications Staff. Participants filing a document in this manner are responsible for serving the document on all other participants. Filing is considered complete by first-class mail as of the time of deposit in the mail, or by courier, express mail, or expedited delivery service upon depositing the document with the provider of the service.

Non-timely requests and/or petitions and contentions will not be entertained absent a determination by the Commission, the presiding officer, or the Atomic Safety and Licensing Board that the petition and/or request should be granted and/or the contentions should be admitted, based on a balancing of the factors specified in 10 CFR 2.309(c)(1)(i)–(viii). To be timely, filings must be submitted no later than 11:59 p.m. Eastern Time on the due date.

Documents submitted in adjudicatory proceedings will appear in NRC's electronic hearing docket which is available to the public at *http://ehd.nrc.gov/EHD_Proceeding/home.asp*, unless excluded pursuant to an order of the Commission, an Atomic Safety and Licensing Board, or a Presiding Officer. Participants are requested not to include personal privacy information, such as social security numbers, home addresses, or home phone numbers in their filings. 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 are requested not to include copyrighted materials in their submission.

For further details with respect to this amendment action, see the application for amendment which is available for public inspection at the Commission's PDR, located at One White Flint North, Public File Area 01F21, 11555 Rockville Pike (first floor), Rockville, Maryland. Publicly available records will be accessible from the ADAMS Public Electronic Reading Room on the Internet at the NRC Web site, *http://www.nrc.gov/reading-rm/adams.html.* If you do not have access to ADAMS or if there are problems in accessing the documents located in ADAMS, contact the PDR Reference staff at 1 (800) 397–4209, (301) 415–4737 or by e-mail to *pdr@nrc.gov.*

*Arizona Public Service Company (APS), et al., Docket Nos. STN 50–528, STN 50–529, and STN 50–530, Palo Verde Nuclear Generating Station, Units 1, 2, and 3, Maricopa County, Arizona*

*Date of amendment request:* January 17, 2008, as supplemented February 29, 2008.

*Description of amendment request:* The proposed amendments would modify the Technical Specifications (TS) to establish more effective and appropriate action, surveillance, and administrative requirements related to ensuring the habitability of the control room envelope (CRE) in accordance with Nuclear Regulatory Commission (NRC)-approved TS Task Force (TSTF) Standard Technical Specification change traveler TSTF–448, Revision 3, ''Control Room Habitability.'' Specifically, the proposed amendments would modify TS 3.7.11, ''Control Room Essential Filtration System (CREFS),'' and add new TS 5.5.17, ''Control Room Envelope Habitability Program,'' to TS Administrative Controls Section 5.5, ''Programs and Manuals.''

The NRC staff issued a ''Notice of Availability of Technical Specification Improvement to Modify Requirements Regarding Control Room Envelope Habitability Using the Consolidated Line Item Improvement Process,'' associated with TSTF–448, Revision 3, in the **Federal Register** on January 17, 2007 (72 FR 2022). The notice included a model safety evaluation, a model no significant hazards consideration (NSHC) determination, and a model license amendment request. In its application dated January 17, 2008, the licensee affirmed the applicability of the model NSHC determination which is presented below.

*Basis for proposed no significant hazards consideration determination:* As required by 10 CFR 50.91(a), an analysis of the issue of NSHC adopted by the licensee is presented below:

Criterion 1—The Proposed Change[s] [Do] Not Involve a Significant Increase in the Probability or Consequences of an Accident Previously Evaluated

The proposed change[s] [do] not adversely affect accident initiators or precursors nor alter the design assumptions, conditions, or configuration of the facility. The proposed change[s] [do] not alter or prevent the ability of structures, systems, and components (SSCs) to perform their intended function to mitigate the consequences of an initiating event within the assumed

acceptance limits. The proposed change[s] [revise] the TS for the CRE [essential filtration] system, which is a mitigation system designed to minimize unfiltered air leakage into the CRE and to filter the CRE atmosphere to protect the CRE occupants in the event of accidents previously analyzed. An important part of the CRE [essential filtration] system is the CRE boundary. The CRE [essential filtration] system is not an initiator or precursor to any accident previously evaluated. Therefore, the probability of any accident previously evaluated is not increased. Performing tests to verify the operability of the CRE boundary and implementing a program to assess and maintain CRE habitability ensure that the CRE [essential filtration] system is capable of adequately mitigating radiological consequences to CRE occupants during accident conditions, and that the CRE [essential filtration] system will perform as assumed in the consequence analyses of design basis accidents. Thus, the consequences of any accident previously evaluated are not increased. Therefore, the proposed change[s] [do] not involve a significant increase in the probability or consequences of an accident previously evaluated.

Criterion 2—The Proposed Change[s] [Do] Not Create the Possibility of a New or Different Kind of Accident From any Accident Previously Evaluated

The proposed change[s] [do] not impact the accident analysis. The proposed change[s] [do] not alter the required mitigation capability of the CRE [essential filtration] system, or its functioning during accident conditions as assumed in the licensing basis analyses of design basis accident radiological consequences to CRE occupants. No new or different accidents result from performing the new surveillance or following the new program. The proposed change[s] [do] not involve a physical alteration of the plant (*i.e.*, no new or different type of equipment will be installed) or a significant change in the methods governing normal plant operation. The proposed change[s] [do] not alter any safety analysis assumptions and is consistent with current plant operating practice. Therefore, [the] change[s] [do] not create the possibility of a new or different kind of accident from any accident previously evaluated.

Criterion 3—The Proposed Change[s] [Do] Not Involve a Significant Reduction in the Margin of Safety

The proposed change[s] [do] not alter the manner in which safety limits, limiting safety system settings or limiting conditions for operation are determined. The proposed change[s] [do] not affect safety analysis acceptance criteria. The proposed change[s] will not result in plant operation in a configuration outside the design basis for an unacceptable period of time without compensatory measures. The proposed change[s] [do] not adversely affect systems that respond to safely shut down the plant and to maintain the plant in a safe shutdown condition. Therefore, the proposed change[s] [do] not involve a significant reduction in a margin of safety. Based upon the reasoning presented above and the previous discussion of the amendment request, the requested change does not involve a no-significant-hazards consideration.

The NRC staff has reviewed the analysis adopted by the licensee and, based on that review, it appears that the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the request for amendments involves NSHC.

*Attorney for licensee:* Michael G. Green, Senior Regulatory Counsel, Pinnacle West Capital Corporation, P.O. Box 52034, Mail Station 8695, Phoenix, Arizona 85072–2034.

*NRC Branch Chief:* Thomas G. Hiltz.

*Entergy Nuclear Operations, Inc., Docket No. 50–333, James A. FitzPatrick Nuclear Power Plant, Oswego County, New York*

*Date of amendment request:* January 22, 2008.

*Description of amendment request:* The proposed amendment would modify the Technical Specification (TS) 3.8.3 requirements related to Diesel Fuel Oil, Lube Oil, and Starting Air by replacing the specific fuel oil and lube oil storage values with the corresponding number of days supply. The specific volumes would be relocated to a licensee-controlled document (*i.e.*, the TS Bases). It would also expand the ''clear and bright'' test in TS 5.5.10 by allowing a water and sediment test to be performed to establish the acceptability of new fuel oil prior to addition to the storage tanks.

*Basis for proposed no significant hazards consideration determination:* As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration, which is presented below:

1. Does the proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?

*Response:* No.

The proposed change to the Diesel Fuel Oil, Lube Oil, and Starting Air Specification relocates the volume of diesel fuel oil and lube oil required to support 7 day operation of the onsite diesel generators, and the volume equivalent to a 6 day supply, to licensee control. The specific volume of fuel oil equivalent to a 7 and 6 day supply is calculated using the NRC approved methodology described in Regulatory Guide 1.137, Revision 1, ''Fuel Oil Systems for Standby Diesel Generators'' and ANSI/ANS [American National Standards Institute/American Nuclear Society] 59.51–1997 (formerly ANSI N195–1976), ''Fuel Oil Systems for Safety-Related Emergency Diesel Generators.'' The specific volume of lube oil equivalent to a 7 and 6 day supply is based on the Emergency Diesel Generator (EDG) manufacturer's consumption values for the run time of the EDG. Because the requirements to maintain a 7 day supply of diesel fuel oil and lube oil are not changed and are consistent with the assumptions in the accident analyses, and the actions taken when the volume of fuel oil and lube oil are less than a 6 day supply have not changed, neither the probability nor the consequences of any accident previously evaluated will be affected. Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

The proposed change to the Diesel Fuel Oil Testing Program adds an option to use already approved testing methodology. Since the methodology is already discussed in ASTM D975 [''Standard Specification for Diesel Fuel Oils''] as an acceptable standard to determine water and sediment content, neither the probability nor the consequences of any accident previously evaluated will be affected. Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the proposed change create the possibility of a new or different kind of accident from any accident previously evaluated?

*Response:* No.

The proposed changes to the Diesel Fuel Oil, Lube Oil and Starting Air Specification and Diesel Fuel Oil Testing Program do not involve physical alterations of the plant (i.e., no new or different type of equipment will be installed) or changes in the methods governing normal plant operation. The changes do not alter assumptions made in the safety analysis but ensure that the diesel generator operates as assumed in the accident analysis. The proposed changes are consistent with the safety analysis assumptions. Therefore, the proposed changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Does the proposed change involve a significant reduction in a margin of safety?

*Response:* No.

The proposed change to the Diesel Fuel Oil, Lube Oil, and Starting Air Specification relocates the volume of diesel fuel oil and lube oil required to support 7 day operation of the onsite diesel generators, and the volume equivalent to a 6 day supply, to

licensee control. As the bases for the existing limits on diesel fuel oil and lube oil are not changed and the methods used to determine these limits have been previously approved, no change is made to the accident analysis assumptions and no margin of safety is reduced as part of this change. Therefore, the proposed change does not involve a significant reduction in a margin of safety.

The proposed change to the Diesel Fuel Oil Testing Program provides an option to use a quantitative method of testing for sediment and water content as an alternative to a qualitative method. This option uses an already accepted method for assessing fuel oil quality. Based on this, there are no alterations to any assumptions used in the accident analysis and this change does not reduce any margin of safety. Therefore, the proposed change does not involve a significant reduction in the margin of safety.

The NRC staff has reviewed the licensee's analysis and, based on this review, it appears that the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the amendment request involves no significant hazards consideration.

*Attorney for licensee:* Mr. William C. Dennis, Assistant General Counsel, Entergy Nuclear Operations, Inc., 440 Hamilton Avenue, White Plains, NY 10601.

*NRC Branch Chief:* Mark G. Kowal.

*Entergy Nuclear Operations, Inc., Docket No. 50–333, James A. FitzPatrick Nuclear Power Plant (JAFNPP), Oswego County, New York*

*Date of amendment request:* February 7, 2008.

*Description of amendment request:* The proposed amendment would revise the Technical Specifications (TS) Surveillance Requirement (SR) 3.1.3.2 frequency in TS 3.1.3, ''Control Rod OPERABILITY'' from ''7 days after the control rod is withdrawn and THERMAL POWER is greater than the [Low Power Setpoint] LPSP of [Rod Worth Minimizer] RWM'' to ''31 days after the control rod is withdrawn and THERMAL POWER is greater than the LPSP of the RWM'' and revise Example 1.4–3 in Section 1.4 ''Frequency'' to clarify the applicability of the 1.25 surveillance test interval extension. The proposed amendment does not adopt the clarification of Source Range Monitor (SRM) TS action for inserting control rods. This clarification was previously adopted during the JAFNPP conversion to Improved Standard Technical Specifications, TS Section 3.3.1.2, required Action E.2, ''Source Range Monitoring [SRM] Instrumentation.''

*Date of publication of individual notice in* **Federal Register**: April 2, 2008 (73 FR 18008).

*Expiration date of individual notice:* May 2, 2008.

*Entergy Operations, Inc., Docket No. 50–313, Arkansas Nuclear One, Unit No. 1, Pope County, Arkansas*

*Date of amendment request:* March 13, 2008.

*Description of amendment request:* The licensee proposes to change the Surveillance Requirement (SR) 3.6.5.8 to require verification that the reactor building spray nozzles are unobstructed following maintenance that could result in nozzle blockage in lieu of the current SR of performing the test every 10 years.

*Basis for proposed no significant hazards consideration determination:* As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration, which is presented below:

1. Does the proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?

*Response:* No.

The Reactor Building Spray System is not an initiator of any analyzed event. The proposed change does not have a detrimental impact on the integrity of any plan structure, system, or component that may initiate an analyzed event. The proposed change will not alter the operation or otherwise increase the failure probability of any plant equipment that can initiate an analyzed accident. This change does not affect the plant design. There is no increase in the likelihood of formation of significant corrosion products. Due to their location at the top of the containment, introduction of foreign material into the spray headers is unlikely. Foreign materials exclusion controls during and following maintenance provides assurance that the nozzles remain unobstructed. Consequently, there is no significant increase in the probability of an accident previously evaluated.

The Reactor Building Spray system is designed to address the consequences of a Loss of Coolant Accident (LOCA) or a Main Steamline Break (MSLB) inside the reactor building. The Reactor Building Spray system is capable of performing its function effectively with the single failure of any active component in the system, any of its subsystems, or any of its support systems.

Therefore, the consequences of an accident previously evaluated are not significantly affected by the proposed change.

2. Does the proposed change create the possibility of a new or different kind of accident from any accident previously evaluated?

*Response:* No.

The proposed change will not physically alter the plant (no new or different type of equipment will be installed) or change the methods governing normal plant operation.

Therefore, the proposed change does not create the possibility of a new or different kind of accident from any previously evaluated.

3. Does the proposed change involve a significant reduction in a margin of safety?

*Response:* No.

The system piping and nozzles are made if material that is not susceptible to corrosion. Obstruction from sources external to the system is highly unlikely due to the location high in the reactor building and not being readily accessible. Strict controls are established to ensure the foreign material is not introduced into the Reactor Building Spray system during maintenance or repairs. Maintenance activities that could introduce significant foreign material into the system require subsequent system cleanliness verification which would prevent nozzle blockage. The spray header nozzles are expected to remain unblocked and available in the event that the safety function is required. The capacity of the system would remain unaffected.

Therefore, the proposed change does not involve a significant reduction in a margin of safety.

The Nuclear Regulatory Commission (NRC) staff has reviewed the licensee's analysis and, based on this review, it appears that the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the amendment request involves no significant hazards consideration.

*Attorney for licensee:* Terence A. Burke, Associate General Counsel—Entergy Nuclear Operations, P.O. Box 31995, Jackson, Mississippi 39286–1995.

*NRC Branch Chief:* Thomas G. Hiltz.

*Entergy Operations, Inc., Docket No. 50–313, Arkansas Nuclear One, Unit No. 1, Pope County, Arkansas*

*Date of amendment request:* March 13, 2008.

*Description of amendment request:* The proposed changes would replace the current Technical Specification (TS) 3.4.12, ''RCS [Reactor Coolant System] Specific Activity'' limit on reactor coolant system (RCS) gross specific activity with a new limit on RCS noble gas specific activity. The noble gas specific activity limit would be based on a new dose equivalent Xe–133 (DEX) definition that would replace the current E Bar average disintegration energy definition. In addition, the current dose equivalent I–131 (DEI) definition would be revised to allow the use of additional thyroid dose conversion factors (DCFs).

*Basis for proposed no significant hazards consideration determination:* As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration, which is presented below:

1. Does the proposed change involve a significant increase in the probability or

consequences of an accident previously evaluated?

*Response:* No.

Reactor coolant specific activity is not an initiator for any accident previously evaluated. The Completion Time when primary coolant gross activity is not within limit is not an initiator for any accident previously evaluated. The current variable limit on primary coolant iodine concentration is not an initiator to any accident previously evaluated. As a result, the proposed change does not significantly increase the probability of an accident. The proposed change will limit primary coolant noble gases to concentrations consistent with the accident analyses. The proposed change to the Completion Time has no impact on the consequences of any design basis accident since the consequences of an accident during the extended Completion Time are the same as the consequences of an accident during the current Completion Time. As a result, the consequences of any accident previously evaluated are not significantly increased.

Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the proposed change create the possibility of a new or different kind of accident from any accident previously evaluated?

*Response:* No.

The proposed change in specific activity limits does not alter any physical part of the plant nor does it affect any plant operating parameter. The change does not create the potential for a new or different kind of accident from any previously calculated.

Therefore, the proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Does the proposed change involve a significant reduction in a margin of safety?

Response: No.

The proposed change revises the limits on noble gas radioactivity in the primary coolant. The proposed change is consistent with the assumptions in the safety analyses and will ensure the monitored values protect the initial assumptions in the safety analyses.

Therefore, the proposed change does not involve a significant reduction in a margin of safety.

The Nuclear Regulatory Commission (NRC) staff has reviewed the licensee's analysis and, based on this review, it appears that the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the amendment request involves no significant hazards consideration.

*Attorney for licensee:* Terence A. Burke, Associate General Counsel—Entergy Nuclear Operations, P.O. Box 31995, Jackson, Mississippi 39286–1995.

*NRC Branch Chief:* Thomas G. Hiltz.

*Entergy Operations, Inc., Docket No. 50–368, Arkansas Nuclear One, Unit No. 2, Pope County, Arkansas*

*Date of amendment request:* March 13, 2008.

*Description of amendment request:* The proposed changes would replace the current TS 3.4.8, ''Reactor Coolant System Specific Activity'' limit on reactor coolant system (RCS) gross specific activity with a new limit on RCS noble gas specific activity. The noble gas specific activity limit would be based on a new dose equivalent Xe-133 (DEX) definition that would replace the current E Bar average disintegration energy definition. In addition, the current dose equivalent I–131 (DEI) definition would be revised to allow the use of additional thyroid dose conversion factors (DCFs).

*Basis for proposed no significant hazards consideration determination:* As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration, which is presented below:

1. Does the proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?

*Response:* No.

Reactor coolant specific activity is not an initiator for any accident previously evaluated. The Completion Time when primary coolant gross activity is not within limit is not an initiator for any accident previously evaluated. The current variable limit on primary coolant iodine concentration is not an initiator to any accident previously evaluated. As a result, the proposed change does not significantly increase the probability of an accident. The proposed change will limit primary coolant noble gases to concentrations consistent with the accident analyses. The proposed change to the Completion Time has no impact on the consequences of any design basis accident since the consequences of an accident during the extended Completion Time are the same as the consequences of an accident during the current Completion Time. As a result, the consequences of any accident previously evaluated are not significantly increased.

Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the proposed change create the possibility of a new or different kind of accident from any accident previously evaluated?

*Response:* No.

The proposed change in specific activity limits does not alter any physical part of the plant nor does it affect any plant operating parameter. The change does not create the potential for a new or different kind of accident from any previously calculated.

Therefore, the proposed change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Does the proposed change involve a significant reduction in a margin of safety?

*Response:* No.

The proposed change revises the limits on noble gas radioactivity in the primary coolant. The proposed change is consistent with the assumptions in the safety analyses and will ensure the monitored values protect the initial assumptions in the safety analyses.

Therefore, the proposed change does not involve a significant reduction in a margin of safety.

The Nuclear Regulatory Commission (NRC) staff has reviewed the licensee's analysis and, based on this review, it appears that the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the amendment request involves no significant hazards consideration.

*Attorney for licensee:* Terence A. Burke, Associate General Counsel—Entergy Nuclear Operations, P. O. Box 31995, Jackson, Mississippi 39286–1995.

*NRC Branch Chief:* Thomas G. Hiltz.

*Entergy Operations, Inc., Docket No. 50–368, Arkansas Nuclear One, Unit No. 2, Pope County, Arkansas*

*Date of amendment request:* March 13, 2008.

*Description of amendment request:* The proposed change will relocate Technical Specification (TS) 3.4.7, ''Reactor Coolant System Chemistry,'' to the Technical Requirements Manual (TRM).

*Basis for proposed no significant hazards consideration determination:* As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration, which is presented below:

1. Does the proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?

*Response:* No.

The proposed change acts to relocate current Reactor Coolant System (RCS) chemistry limits and monitoring requirements from the TSs to the TRM. Monitoring and maintaining RCS chemistry minimizes the potential for corrosion of RCS piping and components. Corrosion effects are considered a long-term impact on RCS structural integrity. Because RCS chemistry will continue to be monitored and controlled, relocating the current TS requirements to the TRM will not present an adverse impact to the RCS and, subsequently, will not impact the probability or consequences of an accident previously evaluated. Furthermore, once relocated to the TRM, changes to RCS chemistry limits or monitoring requirements will be controlled in accordance with 10 CFR 50.59.

Therefore, the proposed change does not involve a significant increase in the

probability or consequences of an accident previously evaluated.

2. Does the proposed change create the possibility of a new or different kind of accident from any accident previously evaluated?

*Response:* No.

The proposed change does not result in any plant modifications or changes in the way the plant is operated. The proposed change only acts to relocate current RCS chemistry limits and monitoring requirements from the TSs to the TRM.

Therefore, the proposed change does not create the possibility of a new or different kind of accident from any previously evaluated.

3. Does the proposed change involve a significant reduction in a margin of safety?

*Response:* No.

The proposed change will maintain limits on RCS chemistry parameters and will continue to provide associated monitoring requirements. Once relocated to the TRM, changes to RCS chemistry limits or monitoring requirements will be controlled in accordance with 10 CFR 50.59. In addition, the RCS chemistry limits are not a structure, system, or component which operating experience or probabilistic risk assessment has shown to be significant to public health and safety.

Therefore, the proposed change does not involve a significant reduction in a margin of safety.

The Nuclear Regulatory Commission (NRC) staff has reviewed the licensee's analysis and, based on this review, it appears that the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the amendment request involves no significant hazards consideration.

*Attorney for licensee:* Terence A. Burke, Associate General Counsel—Entergy Nuclear Operations, P.O. Box 31995, Jackson, Mississippi 39286–1995.

*NRC Branch Chief:* Thomas G. Hiltz.

*Exelon Generation Company, LLC, Docket Nos. 50–352 and 50–353, Limerick Generating Station, Units 1 and 2, Montgomery County, Pennsylvania*

*Date of amendment request:* December 12, 2007.

*Description of amendment request:* The proposed changes are administrative in nature and provide editorial changes to the technical specifications (TSs). The proposed changes involve: (1) Correcting the index; (2) removing cycle specific requirements or notes that have since expired and are no longer applicable; (3) deleting references to previously deleted requirements; (4) changing references to the location of previously relocated information; and (5) other editorial corrections. These proposed changes correct minor inconsistencies that have been introduced over time as a result of previous changes to the TSs or involve changes that are solely editorial in nature.

*Basis for proposed no significant hazards consideration determination:* As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration, which is presented below:

1. Do the proposed changes involve a significant increase in the probability or consequences of an accident previously evaluated?

*Response:* No.

The proposed changes are administrative in nature and do not impact the physical configuration or function of plant structures, systems, or components (SSCs) or the manner in which SSCs are operated, maintained, modified, tested, or inspected. The proposed changes do not impact the initiators or assumptions of analyzed events, nor do they impact mitigation of accidents or transient events.

Therefore, the proposed changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Do the proposed changes create the possibility of a new or different kind of accident from any accident previously evaluated?

*Response:* No.

The proposed changes are administrative in nature and do not alter plant configuration, require that new plant equipment be installed, alter assumptions made about accidents previously evaluated, or impact the function of plant SSCs or the manner in which SSCs are operated, maintained, modified, tested, or inspected. Therefore, the proposed changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Do the proposed changes involve a significant reduction in a margin of safety?

*Response:* No.

The proposed changes are administrative in nature and do not involve any physical changes to plant SSCs or the manner in which SSCs are operated, maintained, modified, tested, or inspected. The proposed changes do not involve a change to any safety limits, limiting safety system settings, limiting conditions of operation, or design parameters for any SSC. The proposed changes do not impact any safety analysis assumptions and do not involve a change in initial conditions, system response times, or other parameters affecting an accident analysis. Therefore, the proposed changes do not involve a significant reduction in a margin of safety.

The NRC staff has reviewed the licensee's analysis and, based on this review, it appears that the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the amendment request involves no significant hazards consideration.

*Attorney for licensee:* J. Bradley Fewell, Esquire, Associate General Counsel, Exelon Generation Company, LLC, 4300 Winfield Road, Warrenville, IL 60555.

*NRC Branch Chief:* Harold K. Chernoff.

*Exelon Generation Company, LLC, and PSEG Nuclear, LLC, Docket Nos. 50–277 and 50–278, Peach Bottom Atomic Power Station (PBAPS),*

*Units 2 and 3, York and Lancaster Counties, Pennsylvania*

*Date of amendment request:* July 13, 2007.

*Description of amendment request:* The proposed amendment would modify the Technical Specifications to support application of Alternative Source Term (AST) methodology at PBAPS Units 2 and 3. The fission product release from the reactor core into containment is referred to as the ''source term,'' and is characterized by the composition and magnitude of the radioactive material, the chemical and physical properties of the material, and the timing of the release from the reactor core as discussed in Technical Information Document (TID) 14844, ''Calculation of Distance Factors for Power and Test Reactor Sites.'' Since the publication of TID 14844, advances have been made in understanding the composition and magnitude, chemical form, and timing of fission product releases from severe nuclear power plant accidents. In light of these insights, NUREG–1465, ''Accident Source Terms for Light-Water Nuclear Power Plants,'' was published in 1995 with revised ASTs for use in the licensing of future light-water reactors.

The Nuclear Regulatory Commission (NRC), in Title 10 of the Code of Federal Regulations, Section 50.67 (10 CFR 50.67), ''Accident source term,'' subsequently allowed the use of the ASTs described in NUREG–1465 at operating plants. This request to apply the AST methodology is made in accordance with 10 CFR 50.67, with the exception that TID 14844 will continue to be used as the radiation dose basis for equipment qualification at PBAPS Units 2 and 3. Application of the AST methodology at PBAPS Units 2 and 3 requires that radiation dose limits specified in 10 CFR 50.67 are adhered to for the exclusion area boundary, the low population zone outer boundary, and the facility control room.

*Basis for proposed no significant hazards consideration determination:* As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards

consideration, which is presented below:

1. The proposed changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

The implementation of alternative source term (AST) assumptions has been evaluated in revisions to the analyses of the following limiting design basis accidents (DBAs) at Peach Bottom Atomic Power Station (PBAPS):

- Loss-of-Coolant Accident,
- Fuel Handling Accident,
- Control Rod Drop Accident, and
- Main Steam Line Break Accident.

Based upon the results of these analyses, it has been demonstrated that, with the requested changes, the dose consequences of these limiting events are within the regulatory guidance provided by the NRC for use with the AST. This guidance is presented in 10 CFR 50.67 and associated Regulatory Guide 1.183, and Standard Review Plan Section 15.0.1. The Alternative Source Term is an input to calculations used to evaluate the consequences of an accident, and does not by itself affect the plant response, or the actual pathway of the radiation released from the fuel. It does, however, better represent the physical characteristics of the release, so that appropriate mitigation techniques may be applied. Therefore, the consequences of an accident previously evaluated are not significantly increased.

The equipment affected by the proposed changes is mitigative in nature, and relied upon after an accident has been initiated. Application of the Alternative Source Term (AST) does not involve any physical changes to the plant design. While the operation of various systems do change as a result of these proposed changes, these systems are not accident initiators. Application of the AST is not an initiator of a design basis accident. The proposed changes to the Technical Specifications (TS), while they revise certain performance requirements, do not involve any physical modifications to the plant. As a result, the proposed changes do not affect any of the parameters or conditions that could contribute to the initiation of any accidents. As such, removal of operability requirements during the specified conditions will not significantly increase the probability of occurrence for an accident previously analyzed. Since design basis accident initiators are not being altered by adoption of the Alternative Source Term analyses, the probability of an accident previously evaluated is not affected.

Therefore, the proposed changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. The proposed changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.

The proposed amendment does not involve a physical alteration of the plant (no new or different type of equipment will be installed and there are no physical modifications to existing equipment associated with the proposed changes). Similarly, it does not physically change any structures, systems or components involved in the mitigation of any accidents; thus, no new initiators or precursors of a new or different kind of accident are created. New equipment or personnel failure modes that might initiate a new type of accident are not created as a result of the proposed amendment.

As such, the proposed amendment will not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. The proposed changes do not involve a significant reduction in a margin of safety.

Safety margins and analytical conservatisms have been evaluated and have been found acceptable. The analyzed events have been carefully selected and margin has been retained to ensure that the analyses adequately bound postulated event scenarios. The dose consequences due to design basis accidents comply with the requirements of 10 CFR 50.67 and the guidance of Regulatory Guide 1.183. The proposed amendment is associated with the implementation of a new licensing basis for PBAPS Design Basis Accidents (DBAs). Approval of the change from the original source term to a new source term taken from Regulatory Guide 1.183 is being requested. The results of the accident analyses, revised in support of the proposed license amendment, are subject to revised acceptance criteria. The analyses have been performed using conservative methodologies, as specified in Regulatory Guide 1.183. Safety margins have been evaluated and analytical conservatism has been utilized to ensure that the analyses adequately bound the postulated limiting event scenario. The dose consequences of these DBAs remain within the acceptance criteria presented in 10 CFR 50.67, ''Accident Source Term'', and Regulatory Guide 1.183.

The proposed changes continue to ensure that the doses at the exclusion area boundary (EAB) and low population zone boundary (LPZ), as well as the Control Room, are within corresponding regulatory limits.

Therefore, operation of PBAPS in accordance with the proposed changes will not involve a significant reduction in a margin of safety.

The NRC staff has reviewed the licensee's analysis and, based on this review, it appears that the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the amendment request involves no significant hazards consideration.

*Attorney for licensee:* Mr. J. Bradley Fewell, Associate General Counsel, Exelon Generation Company LLC, 4300 Winfield Road, Warrenville, IL 60555.

*NRC Branch Chief:* Harold K. Chernoff.

*FPL Energy, Point Beach, LLC, Docket Nos. 50–266 and 50–301, Point Beach Nuclear Plant, Units 1 and 2, Town of Two Creeks, Manitowoc County, Wisconsin*

*Date of amendment request:* March 31, 2008.

*Description of amendment request:* FPL Energy Point Beach, LLC, requests adoption of an approved change to the Standard Technical Specifications (STS) for pressurized-water reactor (PWR) plants (NUREG–1430, NUREG–1431, & NUREG–1432) and plant-specific technical specifications (TS), to replace the current limits on primary coolant gross specific activity with limits on primary coolant noble gas activity. The noble gas activity would be based on dose equivalent Xenon-133 and would take into account only the noble gas activity in the primary coolant. In addition, the current dose equivalent I–131 definition would be revised to allow the use of additional thyroid dose conversion factors. The changes are consistent with Nuclear Regulatory Commission (NRC)-approved Industry/Technical Specification Task Force (TSTF) Standard Technical Specification Change Traveler, TSTF–490, Revision 0.

*Basis for proposed no-significant-hazards-consideration determination:* As required by 10 CFR 50.91(a), an analysis of the issue of no significant hazards consideration is presented below:

Criterion 1—The Proposed Change Does Not Involve a Significant Increase in the Probability or Consequences of an Accident Previously Evaluated Reactor coolant specific activity is not an initiator for any accident previously evaluated. The Completion Time when primary coolant gross activity is not within limit is not an initiator for any accident previously evaluated. The current variable limit on primary coolant iodine concentration is not an initiator to any accident previously evaluated. As a result, the proposed change does not significantly increase the probability of an accident. The proposed change will limit primary coolant noble gases to concentrations consistent with the accident analyses. The proposed change to the Completion Time has no impact on the consequences of any design basis accident since the consequences of an accident during the extended Completion Time are the same as the consequences of an accident during the Completion Time. As a result, the consequences of any accident previously evaluated are not significantly increased.

Criterion 2—The Proposed Change Does Not Create the Possibility of a New or Different Kind of Accident from any Accident Previously Evaluated.

The proposed change in specific activity limits does not alter any physical part of the plant nor does it affect any plant operating parameter.

The change does not create the potential for a new or different kind of accident from any previously calculated.

Criterion 3—The Proposed Change Does Not Involve a Significant Reduction in the Margin of Safety.

The proposed change revises the limits on noble gas radioactivity in the primary coolant. The proposed change is consistent with the assumptions in the safety analyses and will ensure the monitored values protect the initial assumptions in the safety analyses. Based upon the reasoning presented above, the requested change does not involve a significant reduction in the margin of safety.

The NRC staff has reviewed the analysis and based on this review, it appears that the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the amendment request involves no significant hazards consideration.

*Attorney for licensee:* Antonio Fernandez, Esquire, Senior Attorney, FPL Energy Point Beach, LLC, P. O. Box 14000, Juno Beach, FL 33408–0420.

*NRC Branch Chief:* Lois M. James.

*Nuclear Management Company, LLC, Docket No. 50–263, Monticello Nuclear Generating Plant, Wright County, Minnesota*

*Date of amendment request:* March 31, 2008.

*Description of amendment request:* The licensee proposed to increase the current maximum power level authorized by Section 2.C(1) of the renewed facility operating license from 1,775 megawatts thermal (Mwt) to 1,870 Mwt, an approximately five percent increase from the current licensed thermal power. The current maximum power level of 1,775 Mwt was approved in 1998, an increase of 6.3 percent from the original licensed thermal power of 1670 Mwt. Thus, when approved, the licensee's proposed amendment would take the maximum power level to about 12 percent above the original license thermal power. The licensee's application addresses in details each of the following major technical areas: Extended power uprate, containment analysis methods change, increase in credit for containment overpressure for low head emergency core cooling system (ECCS) pumps, and reactor internal pressure differentials (RIPDs) for the steam dryer.

*Basis for proposed no significant hazards consideration determination:* As required by Title 10 of the Code of Federal Regulations (10 CFR) Part 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration (NSHC). The licensee's NSHC analysis, addressing each technical area listed above, is reproduced below:

1. Does the proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?

*Extended Power Uprate*

*Response:* No.

The probability (frequency of occurrence) of [d]esign [b]asis [a]ccidents occurring is not affected by the increased power level, because Monticello Nuclear Generating Plant (MNGP) continues to comply with the regulatory and design basis criteria established for plant equipment. A probabilistic risk assessment demonstrates that the calculated core damage frequencies do not significantly change due to [e]xtended [p]ower [u]prate (EPU). Scram setpoints (equipment settings that initiate automatic plant shutdowns) are established such that there is no significant increase in scram frequency due to EPU. No new challenges to safety-related equipment result from EPU.

The changes in consequences of postulated accidents, which would occur from 102 percent of the EPU [rated thermal power] RTP compared to those previously evaluated, are acceptable. The results of EPU accident evaluations do not exceed the NRC[-] approved acceptance limits. The spectrum of postulated accidents and transients has been investigated, and are shown to meet the plant's currently licensed regulatory criteria. In the area of fuel and core design, for example, the Safety Limit Minimum Critical Power Ratio (SLMCPR) and other applicable Specified Acceptable Fuel Design Limits (SAFDL) are still met. Continued compliance with the SLMCPR and other SAFDLs will be confirmed on a cycle[-]specific basis consistent with the criteria accepted by the NRC.

Challenges to the [r]eactor [c]oolant [p]ressure [b]oundary were evaluated at EPU conditions (pressure, temperature, flow, and radiation) and were found to meet their acceptance criteria for allowable stresses and overpressure margin. Challenges to the containment have been evaluated, and the containment and its associated cooling systems continue to meet the current licensing basis. The increase in the calculated post[-] LOCA suppression pool temperature above the currently assumed peak temperature was evaluated and determined to be acceptable. Radiological release events (accidents) have been evaluated, and have been shown to meet the guidelines of 10 CFR 50.67.

*Containment Analysis Methods Change*

*Response:* No.

The use of passive heat sinks, variable RHR [residual heat removal] heat exchanger capability K-value, and mechanistic heat and mass transfer from the suppression pool surface to the wetwell airspace after 30 seconds for the long[-]term design[-] basis [-]accident loss of coolant accident (DBA–LOCA) containment analysis are not relevant to accident initiation, but rather, pertain to the method used to accurately evaluate postulated accidents. The use of these elements does not, in any way, alter existing fission product boundaries, and provides a conservative prediction of the containment response to DBA–LOCAs. Therefore, the containment analysis method change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

*Increase in Credit for Containment Overpressure for Low Head Emergency Core Cooling System (ECCS) Pumps*

*Response:* No.

These changes update parameters used in the MNGP safety analyses and expand the range and scope of the analyses. This will result in a more realistic analysis of available containment overpressure under design [-]basis accident conditions. The updated analyses affect only the evaluation of previously reviewed accidents. No plant structure, system, or component (SSC) is physically affected by the updated and expanded analyses. No method of operation of any plant SSC is affected. Therefore, there is no significant increase in the probability or consequence of a previously evaluated accident.

*Reactor Internal Pressure Differentials (RIPDs) for the Steam Dryer*

*Response:* No.

The revised steam dryer RIPDs are used in evaluating loads in reactor vessel internals for various conditions (*i.e.*, during normal, upset and faulted conditions). The values more accurately represent the actual plant configuration. No plant structure, system, or component (SSC) is physically affected by the updated and expanded analyses. No method of operation of any plant SSC is affected. Therefore, there is no significant increase in the probability or consequence of a previously evaluated accident.

The analyses supporting the above evaluations were performed at the EPU power level of 2,004 Mwt, which bounds this license amendment request to operate at 1,870 Mwt. Therefore, the proposed changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the proposed change create the possibility of a new or different kind of accident from any accident previously evaluated?

*Extended Power Uprate*

*Response:* No.

Equipment that could be affected by EPU has been evaluated. No new operating mode, safety-related equipment lineup, accident scenario, or equipment failure mode was identified. The full spectrum of accident considerations has been evaluated and no new or different kind of accident has been identified. EPU uses developed technology and applies it within capabilities of existing or modified plant safety[-]related equipment in accordance with the regulatory criteria (including NRC[-]approved codes, standards and methods). No new accidents or event precursors have been identified.

The MNGP TS require revision to implement EPU. The revisions have been assessed and it was determined that the proposed change will not introduce a different accident than that previously evaluated. Therefore, the proposed changes

do not create the possibility of a new or different kind of accident from any accident previously evaluated.

*Containment Analysis Methods Change*

*Response:* No.

The use of passive heat sinks, variable RHR heat exchanger capability K-value, and mechanistic heat and transfer from the suppression pool surface to the wetwell airspace after 30 seconds for the long term DBA–LOCA containment analysis are not relevant to accident initiation, but pertain to the method used to evaluate currently postulated accidents. The use of these analytical tools does not involve any physical changes to plant structures or systems, and does not create a new initiating event for the spectrum of events currently postulated. Further, they do not result in the need to postulate any new accident scenarios. Therefore, the containment analysis method change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

*Increase in Credit for Containment Overpressure for Low Head ECCS Pumps*

*Response:* No.

The proposed change involves the updating and expansion in scope of the existing design bases analysis with respect to the available containment overpressure. No new failure mode or mechanisms have been created for any plant SSC important to safety nor has any new limiting single failure been identified as a result of the proposed analytical changes. Therefore, the change to containment overpressure credited for low pressure ECCS pumps does not create the possibility of a new or different kind of accident from any accident previously evaluated.

*Reactor Internal Pressure Differentials for the Steam Dryer*

*Response:* No.

The revised steam dryer RIPDs are used in evaluating loads in reactor vessel internals for various conditions (i.e., during normal, upset and faulted conditions). The steam dryer RIPDs are not relevant to accident initiation, but only pertain to the method used to evaluate reactor vessel internals loads. The revised steam dryer RIPD values more accurately represent the actual plant configuration. Therefore, the change to steam dryer RIPDs does not create the possibility of a new or different kind of accident from any accident previously evaluated.

The analyses supporting the above evaluations were performed at the EPU power level of 2,004 Mwt, which bounds this license amendment request to operate at 1,870 Mwt. Therefore, the proposed changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Does the proposed change involve a significant reduction in a margin of safety?

*Extended Power Uprate*

*Response:* No.

The EPU affects only design and operational margins. Challenges to the fuel, reactor coolant pressure boundary, and containment were evaluated for EPU conditions. Fuel integrity is maintained by meeting existing design and regulatory limits. The calculated loads on affected structures, systems and components, including the reactor coolant pressure boundary, will remain within their design allowables for design[-]basis event categories. No NRC acceptance criterion is exceeded. Because the MNGP configuration and responses to transients and postulated accidents do not result in exceeding the presently approved NRC acceptance limits, the proposed changes do not involve a significant reduction in a margin of safety.

*Containment Analysis Methods Change*

*Response:* No.

The use of passive heat sinks, variable RHR heat exchanger capability K-value, and mechanistic heat and mass transfer from the suppression pool surface to the wetwell airspace after 30 seconds for the long[-]term DBA–LOCA containment analysis are realistic phenomena and provide a conservative prediction of the plant response to DBA–LOCAs. The increase in pressure and temperature are relatively small and are within design limits. Therefore, the containment analysis methods change does not involve a significant reduction in the margin of safety.

*Increase in Credit for Containment Overpressure for Low Head ECCS Pumps*

*Response:* No.

The proposed changes revise containment response analytical methods and scope for containment pressure to assist in ECCS pump net positive suction head (NPSH). The changes are still based on conservative but more realistic analysis of available containment overpressure determined using analysis methods that minimize containment pressure and maximize suppression pool temperature. These changes do not constitute a significant reduction in the margin of safety.

*Reactor Internal Pressure Differentials for the Steam Dryer*

*Response:* No.

The revised steam dryer RIPDs are used in evaluating loads in reactor vessel internals for various conditions (i.e., during normal, upset and faulted conditions). The revised steam dryer RIPD values more accurately represent the actual plant configuration. The changes are still conservative but more accurately represent the MNGP configuration. These changes do not constitute a significant reduction in the margin of safety.

The analyses supporting the above evaluations were performed at the EPU power level of 2,004 Mwt, which bounds this license amendment request to operate at 1,870 Mwt. Therefore, the proposed changes do not involve a significant reduction in a margin of safety.

The NRC staff has reviewed the licensee's analysis and, based on the NRC staff's own analysis above, it appears that the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the proposed amendment involves no significant hazards consideration.

*Attorney for licensee:* Peter M. Glass, Assistant General Counsel, Xcel Energy Services, Inc., 414 Nicollet Mall, Minneapolis, MN 55401.

*NRC Branch Chief:* Lois M. James.

*Nuclear Management Company, LLC, Docket No. 50–263, Monticello Nuclear Generating Plant, Wright County, Minnesota*

*Date of amendment request:* April 3, 2008.

*Description of amendment request:* The proposed amendment would modify Technical Specifications (TS) requirements related to control room envelope (CRE) habitability in TS Section 3.7.4, ''Control Room Emergency Filtration (CREF) System,'' and Section 5.5, ''Programs and Manuals.'' The proposed changes are consistent with Technical Specification Task Force (TSTF) Standard Technical Specifications (STS) change TSTF–448, Revision 3.

*Basis for proposed no significant hazards consideration determination:* As required by Title 10 of the Code of Federal Regulations (10 CFR) Part 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration (NSHC) by referencing the NRC staff's model NSHC analysis published on January 17, 2007 (72 FR 2022). The NRC staff's model NSHC analysis is reproduced below:

Criterion 1—The Proposed Change Does Not Involve a Significant Increase in the Probability or Consequences of an Accident Previously Evaluated

The proposed change does not adversely affect accident initiators or precursors nor alter the design assumptions, conditions, or configuration of the facility. The proposed change does not alter or prevent the ability of structures, systems, and components (SSCs) to perform their intended function to mitigate the consequences of an initiating event within the assumed acceptance limits. The proposed change revises the TS for the CRE emergency ventilation system, which is a mitigation system designed to minimize unfiltered air leakage into the CRE and to filter the CRE atmosphere to protect the CRE occupants in the event of accidents previously analyzed. An important part of the CRE emergency ventilation system is the CRE boundary. The CRE emergency ventilation system is not an initiator or precursor to any accident previously evaluated. Therefore, the probability of any accident previously evaluated is not increased. Performing tests to verify the operability of the CRE boundary and implementing a program to assess and maintain CRE habitability ensure that the CRE emergency ventilation system is capable of adequately mitigating radiological consequences to CRE occupants during accident conditions, and that the CRE emergency ventilation system will perform as assumed in the consequence analyses of

design basis accidents. Thus, the consequences of any accident previously evaluated are not increased. Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

Criterion 2—The Proposed Change Does Not Create the Possibility of a New or Different Kind of Accident From any Accident Previously Evaluated

The proposed change does not impact the accident analysis. The proposed change does not alter the required mitigation capability of the CRE emergency ventilation system, or its functioning during accident conditions as assumed in the licensing basis analyses of design basis accident radiological consequences to CRE occupants. No new or different accidents result from performing the new surveillance or following the new program. The proposed change does not involve a physical alteration of the plant (i.e., no new or different type of equipment will be installed) or a significant change in the methods governing normal plant operation. The proposed change does not alter any safety analysis assumptions and is consistent with current plant operating practice. Therefore, this change does not create the possibility of a new or different kind of accident from any accident previously evaluated.

Criterion 3—The Proposed Change Does Not Involve a Significant Reduction in the Margin of Safety

The proposed change does not alter the manner in which safety limits, limiting safety system settings or limiting conditions for operation are determined. The proposed change does not affect safety analysis acceptance criteria. The proposed change will not result in plant operation in a configuration outside the design basis for an unacceptable period of time without compensatory measures. The proposed change does not adversely affect systems that respond to safely shut down the plant and to maintain the plant in a safe shutdown condition. Therefore, the proposed change does not involve a significant reduction in a margin of safety.

The NRC staff has reviewed the licensee's referenced analysis, and has found that the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the proposed amendment involves no significant hazards consideration.

*Attorney for licensee:* Peter M. Glass, Assistant General Counsel, Xcel Energy Services, Inc., 414 Nicollet Mall, Minneapolis, MN 55401.

*NRC Branch Chief:* Lois M. James.

*PPL Susquehanna, LLC, Docket Nos. 50–387 and 50–388, Susquehanna Steam Electric Station, Units 1 and 2, Luzerne County, Pennsylvania*

*Date of amendment request:* March 28, 2008.

*Description of amendment request:* The amendments would revise PPL Susquehanna, LLC, Units 1 and 2 (PPL) Technical Specifications (TSs) 3.8.4, ''DC Sources—Operating,'' to establish two new Conditions, A and B the associated Required Actions with their completion times, and also, make some editorial and administrative changes.

*Basis for proposed no significant hazards consideration determination:* As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration, which is presented below:

1. Does the proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?

No. The proposed changes revise the Technical Specifications (TS) for the DC Electrical Power Systems and propose new Actions with increased completion times for an inoperable battery charger. The DC electrical power systems, including associated battery chargers, are not initiators to any accident sequence analyzed in the Final Safety Analysis Report (FSAR). Operation in accordance with the proposed TS ensures that the DC electrical power systems are capable of performing functions as described in the FSAR. Therefore, the mitigative functions supported by the DC Power Systems will continue to provide the protection assumed by the analysis. The integrity of fission product barriers, plant configuration, and operating procedures as described in the FSAR will not be affected by the proposed changes.

Therefore, the proposed changes do not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the proposed change create the possibility of a new or different kind of accident from any accident previously evaluated?

No. The proposed changes only involve revising the TS for the DC electrical power systems. The DC electrical power systems are used to supply equipment used to mitigate an accident. These mitigative functions, supported by the DC electrical power systems are not affected by these changes and they will continue to provide the protection assumed by the safety analysis described in the FSAR. There are no new types of failures or new or different kinds of accidents or transients that could be created by these changes.

Therefore, the proposed changes do not create the possibility of a new or different kind of accident from any accident previously evaluated.

3. Does the proposed change involve a significant reduction in a margin of safety?

No. The margin of safety is established through equipment design, operating parameters, and the setpoints at which automatic actions are initiated. The proposed changes will not adversely affect operation of plant equipment. These changes will not result in a change to the setpoints at which protective actions are initiated. Sufficient DC electrical system capacity is ensured to support operation of mitigation equipment. The equipment fed by the DC electrical sources will continue to provide adequate power to safety related loads in accordance with the safety analysis.

Therefore, the proposed changes do not involve a significant reduction in a margin of safety.

The NRC staff has reviewed the licensee's analysis and, based on this review, it appears that the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the amendment request involves no significant hazards consideration.

*Attorney for licensee:* Bryan A. Snapp, Esquire, Assoc. General Counsel, PPL Services Corporation, 2 North Ninth St., GENTW3, Allentown, PA 18101–1179.

*NRC Branch Chief:* Mark G. Kowal.

*PPL Susquehanna, LLC, Docket Nos. 50–387 and 50–388, Susquehanna Steam Electric Station, Units 1 and 2, Luzerne County, Pennsylvania*

*Date of amendment request:* March 28, 2008.

*Description of amendment request:* The amendments would revise PPL Susquehanna, LLC, Units 1 and 2 (PPL) Technical Specifications (TSs) TS 3.6.4.1 ''Secondary Containment,'' and TS 3.6.4.3 ''Standby Gas Treatment System,'' as follows:

(1) To add a new Required Action option for TS 3.6.4.1 Condition A, to allow additional time to restore secondary containment to OPERABLE when the inoperability is not caused by a loss of secondary containment integrity,

(2) To add a new Actions note TS 3.6.4.1, to allow opening of secondary containment heating ventilation and air conditioning duct access doors and opening of a secondary containment equipment ingress/egress door (102 door) under administrative controls provided no movement of irradiated fuel assemblies in the secondary containment, CORE ALTERATIONS, or operations with a potential for draining the reactor vessel (OPDRVs) are in progress,

(3) To modify the existing note to Surveillance Requirement (SR) 3.6.4.1.3 and add a second note to this same SR, to expand upon the existing SR exception note by adding other types of door access openings that occur for entry and exit of people or equipment, and

(4) The administrative change to remove a one-time allowance in TS 3.6.4.1 and TS 3.6.4.3 ''Standby Gas Treatment System [SGTS],'' that extended the allowable Completion Time for Secondary Containment

inoperable and two SGTS subsystems inoperable in MODE 1, 2, or 3. This allowance was previously incorporated into both Unit 1 and Unit 2 TSs to facilitate Reactor Recirculating Fan Damper Motor work.

*Basis for proposed no significant hazards consideration determination:* As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration, which is presented below:

1. Do the proposed changes involve a significant increase in the probability or consequences of an accident previously evaluated?

*Response:* No.

These changes do not involve any physical change to structures, systems, or components (SSCs) and do not alter the method of operation of any SSCs. The current assumptions in the safety analysis regarding accident initiators and mitigation of accidents are unaffected by these changes. No SSC failure modes or mechanisms are being introduced, and the likelihood of previously analyzed failures remains unchanged.

Operation in accordance with the proposed new Required Action option for TS 3.6.4.1 Condition A and the Notes that are being modified and added in both the Unit 1 and Unit 2 Technical Specifications ensures that the secondary containment remains capable of performing its function. The Required Action change, which will permit up to 72 hours to restore secondary containment vacuum, only provides this additional time when it can be shown that the vacuum loss has not been caused through compromise of the secondary containment boundary.

The proposed Note modifications and additions addressing secondary containment access door and duct access door openings will provide relief from TS requirements that must currently be implemented in response to various routine plant activities. These activities can be managed through administrative controls that will ensure doors can be closed quickly (within 30 minutes) to re-establish secondary containment before the early in-vessel release phase begins (Regulatory Guide 1.183).

These changes do not, therefore, result in an increase in the probability or consequences of an accident previously evaluated.

2. Do the proposed changes create the possibility of a new or different kind of accident from any accident previously evaluated?

*Response:* No.

The proposed changes do not involve a physical alteration of any plant equipment. No new equipment is being introduced, and installed equipment is not being operated in a new or different manner. There are no setpoints, at which protective or mitigative actions are initiated, affected by this change. This change does not alter the manner in which equipment operation is initiated, nor will the function demands on credited equipment be changed. No alterations in the procedures that ensure the plant remains within analyzed limits are being proposed, and no changes are being made to the procedures relied upon to respond to an off-normal event as described in the FSAR [final safety analysis report]. As such, no new failure modes are being introduced. The change does not alter assumptions made in the safety analysis and licensing basis.

Therefore, the proposed changes do not create the possibility of a new or different kind of accident from any previously evaluated.

3. Do the proposed changes involve a significant reduction in a margin of safety?

*Response:* No.

The margin of safety is established through equipment design, operating parameters, and the setpoints at which automatic actions are initiated. The proposed changes are acceptable because the Completion Time for the new Required Action to verify secondary containment boundary integrity within 4 hours has been established to be consistent with the current completion time of Condition A. A failure or inability to complete this verification will result in the implementation of LCO [limiting condition for operation] 3.6.4.1 requirements in the same timeframe that currently exists. Upon successful completion of this verification, however, the proposed change will provide 72 hours to restore secondary containment to an operable status through vacuum restoration. When in this condition, the secondary containment and SGTS are capable of performing their design basis function.

The Note modifications and additions to TS 3.6.4.1 are also acceptable because the revised Notes provide allowances and exemptions to Technical Specification entry for routine plant activities that can be administratively controlled and quickly restored.

The plant response to analyzed events is not affected by these changes and will, continue to provide the margin of safety assumed by the safety analysis.

Therefore, the proposed change does not involve a significant reduction in a margin of safety.

The NRC staff has reviewed the licensee's analysis and, based on this review, it appears that the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the amendment request involves no significant hazards consideration.

*Attorney for licensee:* Bryan A. Snapp, Esquire, Assoc. General Counsel, PPL Services Corporation, 2 North Ninth St., GENTW3, Allentown, PA 18101–1179.

*NRC Branch Chief:* Mark G. Kowal.

*Southern California Edison Company, et al., Docket Nos. 50–361 and 50–362, San Onofre Nuclear Generating Station, Units 2 and 3, San Diego County, California*

*Date of amendment request:* November 30, 2007.

*Description of amendment request:* The proposed Technical Specification changes will provide operational flexibility supported by direct current (DC) electrical subsystem design upgrades that are in progress. These upgrades will provide increased capacity batteries, additional battery chargers, and the means to cross-connect DC subsystems while meeting all design battery loading requirements. With these modifications in place, it will be feasible to perform routine surveillances as well as battery replacements online.

*Basis for proposed no significant hazards consideration determination:* As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration, which is presented below:

1. Will operation of the facility in accordance with this proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?

*Response:* No.

The proposed changes to Technical Specifications (TS) 3.8.4 and 3.8.6 would allow extension of the Completion Time (CT) for inoperable Direct Current (DC) distribution subsystems to manually cross-connect DC distribution buses of the same safety train of the operating unit for 21 days (30 days for upgrade to 1800 amp-hour rated batteries). Currently the CT only allows for 2 hours to ascertain the source of the problem before a controlled shutdown is initiated. Loss of a DC subsystem is not an initiator of an event. However, complete loss of a Train A (subsystems A and C) or Train B (subsystems B and D) DC system would initiate a plant transient/plant trip.

Operation of a DC Train in cross-connected configuration does not affect the quality of DC control and motive power to any system. Therefore, allowing the cross-connect of DC distribution systems does not significantly increase the probability of an accident previously evaluated in Chapter 15 of the Updated Final Safety Analysis Report (UFSAR).

The above conclusion is supported by Probabilistic Risk Assessment (PRA) evaluation which encompasses all accidents, including UFSAR Chapter 15.

New TS Surveillance Requirement (SR) 3.8.4.4 is added to allow the application of the modified performance discharge testing on batteries rated at 1800 amp-hour using a frequency of 30 months. The application of the modified performance test is the preferred choice at SONGS for Class 1 E 1800 amp-hour rated batteries. Therefore, only the modified performance discharge test will be used which uses the combined duty cycle of the cross-connected subsystems AC or B–D. Battery life expectancy is optimized by using a 30-month modified performance test (service and performance test combined). The more rigorous modified performance discharge test will be applied in intervals of 30 months over the entire battery life. Using the same test method and test frequency throughout the battery life ensures that best

trending results are achieved. The test frequency of 30 months will better correspond with scheduling of the more rigorous 60-month interval battery performance of modified performance discharge tests. Based on operating experience, the interval of 30 months is not expected to affect SONGS' capability to detect battery health and capacity.

The relocation of preventive maintenance surveillances and certain operating limits and actions to the Licensee Controlled Specifications and new Battery Monitoring and Maintenance Program will not challenge the ability of the DC electrical power system to perform its design function. Appropriate monitoring and maintenance consistent with industry standards will continue to be performed. In addition, the DC electrical power system is within the scope of 10 CFR 50.65, ''Requirements for monitoring the effectiveness of maintenance at nuclear power plants,'' which will ensure the control of maintenance activities associated with the DC electrical power system. Enhancements from TSTF–360, Rev. 1 and IEEE 450–2002 have been incorporated into TSs 3.8.4, 3.8.5, and 3.8.6. These changes do not impact the probability or consequences of an accident previously evaluated.

Further, changes are made of an editorial nature or provide clarification regarding electrical 'Trains' and 'Subsystems' by using a more conventional terminology. TSs affected by editorial changes include 3.8.1, 3.8.4, 3.8.5, 3.8.6, 3.8.7, 3.8.9, and 3.8.10. The changes being proposed in the TS do not affect assumptions contained in other safety analyses or the physical design of the plant, nor do they affect other Technical Specifications that preserve safety analysis assumptions.

Therefore, operation of the facility in accordance with the proposed amendment would not involve a significant increase in the probability or consequences of an accident previously analyzed.

2. Will operation of the facility in accordance with this proposed change create the possibility of new or different kind of accident from any accident previously evaluated?

*Response:* No.

The proposed changes involve restructuring the TS for the DC electrical power system. The DC electrical power system, including associated battery chargers, is not an initiator to any accident sequence analyzed in the UFSAR. Rather, the DC electrical power system is used to supply equipment used to mitigate an accident.

The proposed change modifies TSs and surveillances for batteries and chargers to meet the improvements of TSTF–360, Rev. 1 and IEEE 450–2002 whose intent is to maintain the same equipment capability as previously assumed in Southern California Edison's (SCE's) commitment to IEEE 450–1980.

The proposed change will allow the cross-tie of DC subsystems and allow extension of the CT for an inoperable subsystem to 21 days (30 days for upgrade to 1800 amp-hour rated batteries). Failure of the cross-tied DC buses and/or associated battery(ies) is bounded by existing evaluations for the failure of an entire electrical train.

Swing battery chargers are added to increase the overall DC system reliability. Administrative and mechanical controls are in place to ensure the design and operation of the DC systems continue to meet the UFSAR design basis.

Therefore, operation of the facility in accordance with this proposed change will not create the possibility of new or different kind of accident from any accident previously evaluated.

3. Will operation of the facility in accordance with this proposed change involve a significant reduction in a margin of safety?

*Response:* No.

The margin of safety is established through equipment design, operating parameters, and the setpoints at which automatic actions are initiated. The proposed changes will not adversely affect operation of plant equipment. These changes will not result in a change to the setpoints at which protective actions are initiated. Sufficient DC capacity to support operation of mitigation equipment is ensured. The changes associated with the new battery maintenance and monitoring program will ensure that the station batteries are maintained in a highly reliable manner. The equipment fed by the DC electrical sources will continue to provide adequate power to safety related loads in accordance with analysis assumptions.

Improvements in accordance with IEEE 450–2002 and TSTF–360, Rev. 1 maintain the same level of equipment performance stated in the UFSAR and the current Technical Specifications.

The addition of swing battery chargers increases the overall DC system reliability. Administrative and mechanical controls will be in place to ensure that the design and operation of the DC systems continue to meet the UFSAR design basis.

The addition of the DC cross-tie capability proposed for TS 3.8.4 has been evaluated, as described previously, using PRA and determined to be of acceptable risk as long as the duration while cross-tied is limited to 30 days. A new Condition has been included as part of this proposed change to ensure that plant operation, with DC buses cross-tied, will not exceed 21 days (30 days for upgrade to 1800 amp-hour rated batteries).

Revising the LCO statement to reflect the SONGS-specific design terminology and renaming existing conditions to make the Condition more consistent with the Standard Technical Specifications (STS) is considered administrative.

Therefore, operation of the facility in accordance with the proposed amendment would not involve a significant reduction in a margin of safety.

The NRC staff has reviewed the licensee's analysis and, based on this review, it appears that the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the amendment request involves no significant hazards consideration.

*Attorney for licensee:* Terence A. Burke, Associate General Counsel—Nuclear Entergy Services, Inc., 1340 Echelon Parkway, Jackson, Mississippi 39213.

*NRC Branch Chief:* Thomas G. Hiltz.

*Southern Nuclear Operating Company, Inc., Georgia Power Company, Oglethorpe Power Corporation, Municipal Electric Authority of Georgia, City of Dalton, Georgia, Docket Nos. 50–321 and 50–366, Edwin I. Hatch Nuclear Plant, Units 1 and 2, Appling County, Georgia*

*Date of amendment request:* August 29, 2006, as supplemented November 6, November 27, 2006, January 30, June 22, July 16, August 13, October 18, December 11, 2007, January 24, February 4, February 25 (two letters, nos. 1389 and 0175), February 27, and March 13, 2008.

*Description of amendment request:* The proposed amendments would revise the licensing and design basis, including the Technical Specifications, with a full scope implementation of an alternative source term (AST). The licensee states that the AST analyses include determination of the onsite radiological doses, specifically the main control room, technical support center and off-site radiological doses resulting from the loss-of-coolant, main steam line break, control rod drop, and fuel-handling design-basis accident (DBA) analyses. The licensee states that the analyses demonstrate that, using AST methodologies, the post-accident onsite and offsite doses remain within regulatory acceptance limits.

*Basis for proposed no significant hazards consideration determination:* As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration, which is presented below:

1. Does the proposed change involve a significant increase in the probability or consequences of an accident previously evaluated?

Adoption of the AST and those plant systems affected by implementing AST do not initiate DBAs. The AST does not affect the design or manner in which the facility is operated; rather, once the occurrence of an accident has been postulated, the new accident source term is an input to analyses that evaluate the radiological consequences. The implementation of the AST and changed Technical Specifications have been incorporated in the analyses for the limiting DBAs at HNP. The structures, systems, and components affected by the proposed change are mitigative in nature and relied upon after an accident has been initiated. Based on the revised analyses, the proposed changes to the Technical Specifications (including revised leakage limits) impose certain performance criteria which do not increase accident initiation probability. The proposed changes do not involve a revision to the parameters

or conditions that could contribute to the initiation of a DBA discussed in Chapter 15 of the Unit 2 Final Safety Analysis Report. Therefore, the proposed change does not result in an increase in the probability of an accident previously identified. Plant specific AST radiological analyses have been performed and, based on the results of these analyses, it has been demonstrated that the dose consequences of the limiting events considered in the analyses are within the regulatory guidance provided by the Nuclear Regulatory Commission for use with the AST. This guidance is presented in [Title 10 of the Code of Federal Regulations, Section 50.67] (10 CFR 50.67), [Accident Source Term] Regulatory Guide 1.183, [Alternative Radiological Source Terms for Evaluating Design Basis Accidents at Nuclear Power Reactors (ML003716792)] and Standard Review Plan, Section 15.0.1. Therefore, the proposed change does not result in a significant increase in the consequences of an accident previously evaluated.

2. Does the proposed change create the possibility of a new or different kind of accident from any previously evaluated?

Implementation of AST and associated changes does not alter or involve any design basis accident initiators. These changes do not affect the design function or mode of operations of systems, structures, or components in the facility prior to a postulated accident. Since systems, structures, and components are operated essentially no differently after the AST implementation, no new failure modes are created by this proposed change. Therefore, the proposed change does not create the possibility of a new or different kind of accident from any previously evaluated.

3. Does the proposed change involve a significant decrease in the margin of safety?

The changes proposed are associated with a revision to the licensing basis for HNP. Approval of the licensing basis change from the original source term to the AST is requested by this application for a license amendment. The results of the accident analyses revised in support of the proposed change are subject to the acceptance criteria in 10 CFR 50.67. The analyzed events have been carefully selected, and the analyses supporting these changes have been performed using approved methodologies and conservative inputs to ensure that analyzed events are bounding and safety margin has been retained. The dose consequences of these limiting events are within the acceptance criteria presented in 10 CFR 50.67, Regulatory Guide 1.183, and Standard Review Plan 15.0.1. Therefore, because the proposed changes continue to result in dose consequences within the applicable regulatory limits, the changes are considered to not result in a significant reduction in the margin of safety.

The NRC staff has reviewed the licensee's analysis and, based on this review, it appears that the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the amendment request involves no significant hazards consideration.

*Attorney for licensee:* Ernest L. Blake, Jr., Esquire, Shaw, Pittman, Potts and Trowbridge, 2300 N Street, NW., Washington, DC 20037.

*NRC Branch Chief:* Melanie C. Wong.

*Tennessee Valley Authority, Docket No. 50 390, Watts Bar Nuclear Plant, Unit 1, Rhea County, Tennessee*

*Date of amendment request:* March 27, 2008.

*Description of amendment request:* The proposed amendment would revise the allowable value for Function 3, ''Containment Purge Exhaust Radiation Monitors,'' in Technical Specifications (TSs) Table 3.3.6–1, ''Containment Vent Isolation Instrumentation,'' of Limiting Conditions for Operation 3.3.6, during Modes 1 through 4. The current allowable value was found to be non-conservative for operating Modes 1 through 4 because the basis for the specified value inappropriately credited the containment purge exhaust filters, which are only required during movement of irradiated fuel assemblies within containment. The current allowable value remains acceptable during movement of irradiated fuel assemblies within containment.

*Basis for proposed no significant hazards consideration determination:* As required by 10 CFR 50.91(a), the licensee has provided its analysis of the issue of no significant hazards consideration, which is presented below:

1. Does the proposed amendment involve a significant increase in the probability or consequences of an accident previously evaluated?

*Response:* No.

The proposed change is associated with radiation effluent monitoring and isolation of Containment Purge exhaust flow in the event of a design basis SBLOCA [small break loss of coolant accident]. The change is not associated with equipment or processes which can initiate a design basis accident. Consequently, this change does not affect the probability of an accident previously evaluated.

The revised purge exhaust monitor allowable value will ensure the monitors isolate the purge exhaust and will limit the offsite doses associated with a SBLOCA to well within the limits of 10 CFR 100. This change serves to ensure the consequences of an accident previously evaluated remain bounded by the plant's current licensing basis. Therefore, the consequences of accidents previously evaluated are not increased by this change.

Therefore, the proposed change does not involve a significant increase in the probability or consequences of an accident previously evaluated.

2. Does the proposed amendment create the possibility of a new or different kind of accident from any accident previously evaluated?

*Response:* No.

The proposed change is associated with radiation effluent monitoring and isolation of Containment Purge exhaust flow in the event of a design basis SBLOCA. The change is not associated with equipment or processes which can initiate a design basis accident. The change does not introduce new accident initiators or physical changes in plant equipment.

Therefore, the proposed change does not create the possibility of a new or different kind of accident from any previously evaluated.

3. Does the proposed amendment involve a significant reduction in a margin of safety?

*Response:* No.

The proposed change involves a conservative change in the Containment Purge exhaust radiation monitor allowable value in TS Table 3.3.6–1. The new allowable value reflects a change in the monitor analytical limit which does not assume credit for the Containment Purge exhaust filters. The proposed allowable value will ensure the monitors will isolate the purge exhaust as assumed in the existing design basis SBLOCA analysis.

Therefore, the proposed change does not involve a significant reduction in a margin of safety.

The NRC staff has reviewed the licensee's analysis and, based on this review, it appears that the three standards of 10 CFR 50.92(c) are satisfied. Therefore, the NRC staff proposes to determine that the amendment request involves no significant hazards consideration.

*Attorney for licensee:* General Counsel, Tennessee Valley Authority, 400 West Summit Hill Drive, ET 11A, Knoxville, Tennessee 37902.

*NRC Branch Chief:* L. Raghavan.

## Notice of Issuance of Amendments to Facility Operating Licenses

During the period since publication of the last biweekly 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.

Notice of Consideration of Issuance of Amendment to Facility Operating License, Proposed No Significant Hazards Consideration Determination, and Opportunity for A Hearing in connection with these actions was published in the **Federal Register** as indicated.

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.

For further details with respect to the action see (1) the applications for amendment, (2) the amendment, and (3) the Commission's related letter, Safety Evaluation and/or Environmental Assessment as indicated. All of these items are available for public inspection at the Commission's Public Document Room (PDR), located at One White Flint North, Public File Area 01F21, 11555 Rockville Pike (first floor), Rockville, Maryland. Publicly available records will be accessible from the Agencywide Documents Access and Management Systems (ADAMS) Public Electronic Reading Room on the internet at the NRC Web site, *http://www.nrc.gov/reading-rm/adams.html.* If you do not have access to ADAMS or if there are problems in accessing the documents located in ADAMS, contact the PDR Reference staff at 1 (800) 397–4209, (301) 415–4737 or by e-mail to *pdr@nrc.gov.*

*AmerGen Energy Company, LLC, Docket No. 50–289, Three Mile Island Nuclear Station, Unit 1 (TMI–1), Dauphin County, Pennsylvania*

*Date of application for amendment:* April 12, 2007.

*Brief description of amendment:* The amendment modifies the TMI–1 technical specifications related to control room envelope habitability consistent with Technical Specification Task Force (TSTF) Traveler TSTF–448.

*Date of issuance:* April 16, 2008.

*Effective date:* As of the date of issuance and shall be implemented within 120 days of issuance.

*Amendment No.:* 264.

*Facility Operating License No. DPR–50.* Amendment revised the license and the technical specifications.

*Date of initial notice in* ***Federal Register:*** June 5, 2007 (72 FR 31100). The supplements dated January 18, 2008, and March 14, 2008, provided additional information that clarified the application, did not expand the scope of the application as originally noticed and did not change the NRC staff's original proposed no significant hazards determination.

The Commission's related evaluation of the amendment is contained in a Safety Evaluation dated April 16, 2008.

*No significant hazards consideration comments received:* No.

*Carolina Power & Light Company, Docket Nos. 50–325 and 50–324, Brunswick Steam Electric Plant, Units 1 and 2, Brunswick County, North Carolina*

*Date of application for amendments:* January 22, 2007, as supplemented on June 21, July 18, July 31, and October 15, 2007, and January 24, February 14, March 5, and March 21, 2008.

*Brief description of amendments:* Change the Technical Specifications (TSs) to support the transition to AREVA fuel and core design methodologies.

*Date of issuance:* March 27, 2008.

*Effective date:* Date of issuance, to be implemented on Unit 1 prior to startup from the 2008 refueling outage, and to be implemented on Unit 2 prior to startup from the 2009 refueling outage.

*Amendment Nos.:* 246 and 274.

*Facility Operating License Nos. DPR–71 and DPR–62:* Amendments change the TSs.

*Date of initial notice in* ***Federal Register:*** December 4, 2007 (72 FR 68208). The supplements dated January 24, February 14, March 5, and March 21, 2008, provided additional information that clarified the application, did not expand the scope of the application as originally noticed, and did not change the staff's original proposed no significant hazards consideration determination as published in the **Federal Register**.

The Commission's related evaluation of the amendments is contained in a Safety Evaluation dated March 27, 2008.

*No significant hazards consideration comments received:* No.

*Energy Northwest, Docket No. 50–397, Columbia Generating Station, Benton County, Washington*

*Date of application for amendment:* November 7, 2007.

*Brief description of amendment:* The amendment deletes License Condition 2.F, which requires reporting of violations of certain other requirements contained in Section 2.C of the license.

*Date of issuance:* April 15, 2008.

*Effective date:* As of its date of issuance and shall be implemented within 90 days from the date of issuance.

*Amendment No.:* 206.

*Facility Operating License No. NPF–21:* The amendment revised the Facility Operating License.

*Date of initial notice in* ***Federal Register:*** December 4, 2007 (72 FR 68211) The Commission's related evaluation of the amendment is contained in a Safety Evaluation dated April 15, 2008.

*No significant hazards consideration comments received:* No.

*Entergy Nuclear Operations, Inc., Docket No. 50–255, Palisades Plant, Van Buren County, Michigan*

*Date of application for amendment:* May 22, 2007.

*Brief description of amendment:* The amendment incorporates technical specification (TS) changes based on Nuclear Regulatory Commission (NRC)-approved TS Task Force (TSTF)–497–A, ''Changes to Reflect Revision of 10 CFR 50.55a,'' Revision 0, as modified by NRC-approved TSTF–497, ''Limit Inservice Testing Program [Surveillance Requirements] SR 3.0.2 Application to Frequencies of Two years or Less.'' Specifically, the amendment revises Palisades Nuclear Plant TS Section 5.5.7, ''Inservice Testing Program,'' to update references to the American Society of Mechanical Engineers code and applicability of the provisions of SR 3.0.2.

*Date of issuance:* April 15, 2008.

*Effective date:* As of the date of issuance and shall be implemented within 60 days.

*Amendment No.:* 232.

*Renewed Facility Operating License No. DPR–20:* Amendment revised the Renewed Facility Operating License and Technical Specifications.

*Date of initial notice in* ***Federal Register:*** August 28, 2007 (72 FR 49575). The Commission's related evaluation of the amendment is contained in a Safety Evaluation dated April 15, 2008.

*No significant hazards consideration comments received:* No.

*Entergy Nuclear Vermont Yankee, LLC and Entergy Nuclear Operations, Inc., Docket No. 50–271, Vermont Yankee Nuclear Power Station, Vernon, Vermont*

*Date of application for amendment:* October 18, 2007.

*Brief description of amendment:* The amendment revised the Technical Specifications to change requirements related to emergency diesel generator (EDG) fuel oil tank volume, EDG fuel oil testing and reactor building crane inspections.

*Date of Issuance:* April 17, 2008.

*Effective date:* As of the date of issuance, and shall be implemented within 60 days.

*Amendment No.:* 231.

*Facility Operating License No. DPR–28:* Amendment revised the License and Technical Specifications.

*Date of initial notice in **Federal Register:*** December 18, 2007 (72 FR 71711).

The Commission's related evaluation of this amendment is contained in a Safety Evaluation dated April 17, 2008.

*No significant hazards consideration comments received:* No.

*Entergy Operations, Inc., Docket No. 50–382, Waterford Steam Electric Station, Unit 3, St. Charles Parish, Louisiana*

*Date of amendment request:* April 24, 2007, as supplemented by electronic mail dated February 12, 2008.

*Brief description of amendment:* The change adds Optimized ZIRLO as an acceptable fuel rod cladding material in the Waterford Steam Electric Station, Unit 3, Technical Specification (TS) 5.3.1, ''Fuel Assemblies.'' TS 5.3.1 currently identifies, in part, Zircaloy or ZIRLO™ fuel rod cladding as the allowable fuel rod cladding material.

*Date of issuance:* April 16, 2008.

*Effective date:* As of the date of issuance and shall be implemented 60 days from the date of issuance.

*Amendment No.:* 215.

*Facility Operating License No. NPF–38:* The amendment revised the Facility Operating License and Technical Specifications.

*Date of initial notice in **Federal Register:*** May 22, 2007 (72 FR 28720). The supplemental electronic mail dated February 12, 2008, provided additional information that clarified the application, did not expand the scope of the application as originally noticed, and did not change the staff's original proposed no significant hazards consideration determination. The Commission's related evaluation of the amendment is contained in a Safety Evaluation dated April 16, 2008.

*No significant hazards consideration comments received:* No.

*Entergy Operations, Inc., Docket No. 50–382, Waterford Steam Electric Station, Unit 3, St. Charles Parish, Louisiana*

*Date of amendment request:* August 2, 2007, as supplemented by letters dated January 17, March 10, and electronic mail dated March 24, 2008. In addition, Entergy submitted for review and approval the revised emergency core cooling system (ECCS) performance analysis by letter dated August 9, 2007, as supplemented by letter dated January 21, 2008; and a supplement to the ECCS performance analysis by letter dated October 4, 2007, as supplemented by letter dated March 4, 2008.

*Brief description of amendment:* The changes to the technical specifications add new analytical methods and modify the containment average air temperature and safety injection tank level to support the implementation of Combustion Engineering 16 x 16 Next Generation Fuel (NGF) as defined in Westinghouse Topical Report WCAP–16500–P beginning in Cycle 16 commencing after the spring 2008 refueling outage.

*Date of issuance:* April 15, 2008.

*Effective date:* As of the date of issuance and shall be shall be implemented prior to startup following the spring 2008 refueling outage.

*Amendment No.:* 214.

*Facility Operating License No. NPF–38:* The amendment revised the Facility Operating License and Technical Specifications.

*Date of initial notice in **Federal Register:*** September 11, 2007 (72 FR 51858). The supplemental letters dated January 17, and March 10, 2008, and electronic mail dated March 24, 2008, for changes to the TSs; the supplemental letter dated January 21, 2008, for review and approval of the revised ECCS performance analysis; and the supplemental letter dated March 4, 2008, for review and approval of the supplement to the ECCS performance analysis, provided additional information that clarified the application, did not expand the scope of the application as originally noticed, and did not change the NRC staff's original proposed no significant hazards consideration determination as published in the **Federal Register**.

The Commission's related evaluation of the amendment is contained in a Safety Evaluation dated April 15, 2008.

*No significant hazards consideration comments received:* No.

*Exelon Generation Company, LLC, Docket Nos. STN 50–456 and STN 50–457, Braidwood Station (Braidwood), Units 1 and 2, Will County, Illinois*

*Date of application for amendment:* February 25, 2008, as supplemented by letters dated March 27, 2008, and April 9, 2008.

*Brief description of amendment:* The amendments revise Technical Specification (TS) 5.5.9, ''Steam Generator (SG) Program,'' and TS 5.6.9, ''Steam Generator (SG) Tube Inspection Report.'' For TS 5.5.9, the amendment replaces the existing alternate repair criteria in the provisions for SG tube repair criteria, during Braidwood, Unit 2, Refueling Outage 13 and the subsequent operating cycle. For TS 5.6.9, three new reporting requirements are added to the existing seven requirements for Braidwood Station (Braidwood), Unit 2. These changes only affect Braidwood, Unit 2; however, this action is docketed for Braidwood, Units 1 and 2, because the TS are common to both units.

*Date of issuance:* April 18, 2008.

*Effective date:* As of the date of issuance and shall be implemented prior to the return to service from Braidwood, Unit 2, spring 2008 Refueling Outage 13.

*Amendment Nos.:* Unit 1–150; Unit 2–150.

*Facility Operating License Nos. NPF–72 and NPF–77:* The amendment revised the TSs and License.

*Date of initial notice in **Federal Register:*** March 11, 2008 (73 FR 13029).

The March 27, 2008, and April 9, 2008, supplemental letters provided additional information that clarified the application, did not expand the scope of the application as originally noticed, and did not change the staff's original proposed no significant hazards consideration determination.

The Commission's related evaluation of the amendments is contained in a Safety Evaluation dated April 18, 2008.

*No significant hazards consideration comments received:* No.

*Indiana Michigan Power Company, Docket Nos. 50–315, Donald C. Cook Nuclear Plant, Units 1 and 2 (DCCNP–1 and DCCNP–2), Berrien County, Michigan*

*Date of application for amendments:* February 29, 2008.

*Brief description of amendments:* The amendments revised the licensing basis of ice condenser ice fusion time, specifying conditions under which plant operation may proceed in less than 5 weeks after ice baskets have been reloaded.

*Date of issuance:* April 16, 2008.

*Effective date:* As of the date of issuance, and shall be implemented prior to Unit 1 entering Mode 4 at the end of the 2008 refueling outage.

*Amendment No.:* 303 (for DCCNP–1) and 286 (for DCCNP–2).

*Facility Operating License Nos. DPR–58 and DPR–74:* Amendments revised the Renewed Operating Licenses.

*Date of initial notice in **Federal Register:*** March 12, 2008 (73 FR 13253)

The Commission's related evaluation of the amendment is contained in a safety evaluation dated April 16, 2008.

*No significant hazards consideration comments received:* No.

*Tennessee Valley Authority, Docket No. 50–328, Sequoyah Nuclear Plant, Unit 2, Hamilton County, Tennessee*

*Date of application for amendment:* July 26, 2007, as supplemented by letters dated October 3 and December 21, 2007, and February 29, 2008.

*Brief description of amendment:* The proposed amendment would add a new reference to Technical Specification 6.9.1.14.a, which lists documents that have been approved by the U.S. Nuclear Regulatory Commission for use in determining the core operating limits. The new reference is the Areva NP, Inc., Topical Report EMF–2103P–A, ''Realistic Large Break LOCA [Loss-Of-Coolant Accident] Methodology for Pressurized Water Reactors.''

*Date of issuance:* April 10, 2008.

*Effective date:* As of the date of issuance and shall be implemented within 45 days.

*Amendment No.* 311.

*Facility Operating License No. DPR–79:* Amendment revises the technical specifications.

*Date of initial notice in* ***Federal Register:*** August 28, 2007 (72 FR 49583). The supplemental letters dated October 3 and December 21, 2007, and February 29, 2008, provided additional information that clarified the application, did not expand the scope of the application as originally noticed, and did not change the staff's original proposed no significant hazards consideration determination as published in the **Federal Register**.

The Commission's related evaluation of the amendment is contained in a Safety Evaluation dated April 10, 2008.

*No significant hazards consideration comments received:* No.

**Previously Published Notices of Consideration of Issuance of Amendments to Facility Operating Licenses, Proposed No Significant Hazards Consideration Determination, and Opportunity for a Hearing**

The following notices were previously published as separate individual notices. The notice content was the same as above. They were published as individual notices either because time did not allow the Commission to wait for this biweekly notice or because the action involved exigent circumstances. They are repeated here because the biweekly notice lists all amendments issued or proposed to be issued involving no significant hazards consideration.

For details, see the individual notice in the **Federal Register** on the day and page cited. This notice does not extend the notice period of the original notice.

*Arizona Public Service Company, et al., Docket No. STN 50–529, Palo Verde Nuclear Generating Station, Unit 2, Maricopa County, Arizona*

*Date of amendment request:* April 10, 2008.

*Brief Description of amendment request:* The proposed amendment would revise Technical Specification (TS) 3.5.5, Refueling Water Tank (RWT) to increase the minimum required RWT level indications and the corresponding borated water volumes in TS Figure 3.5.5–1, ''Minimum Required RWT Volume,'' by 3 percent. This change will ensure that there is adequate water volume available in the RWT to ensure that the engineered safety feature pumps and the new containment recirculation sump strainers will meet their design functions during loss-of-coolant accidents.

*Date of publication of individual notice in* ***Federal Register:*** April 17, 2008 (73 FR 20961).

*Expiration date of individual notice:* May 1, 2008.

Dated at Rockville, Maryland, this 28th day of April, 2008.

For the Nuclear Regulatory Commission.

**Catherine Haney,**

*Director, Division of Operating Reactor Licensing, Office of Nuclear Reactor Regulation.*

[FR Doc. E8–9679 Filed 5–5–08; 8:45 am]

**BILLING CODE 7590–01–P**

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## NUCLEAR REGULATORY COMMISSION

**[Docket No. 50–133]**

## Environmental Assessment and Finding of No Significant Impact Related to Issuance of Exemption for the Humboldt Bay Power Plant Unit 3, License DPR–007, Humboldt, California

**AGENCY:** U.S. Nuclear Regulatory Commission.

**ACTION:** Environmental Assessment and Finding of No Significant Impact.

**FOR FURTHER INFORMATION CONTACT:** John Hickman, Division of Waste Management and Environmental Protection, Office of Federal and State Materials and Environmental Management Programs, U.S. Nuclear Regulatory Commission, Mail Stop: T8F5, Washington, DC 20555–0001. Telephone: (301) 415–3017; e-mail *john.hickman@nrc.gov.*

**SUPPLEMENTARY INFORMATION:**

### I. Introduction

The U.S. Nuclear Regulatory Commission (NRC) staff is considering a request dated November 5, 2007, by the Pacific Gas and Electric Company (PG&E or the Licensee), to approve a request for exemption from the requirements set forth in 10 CFR 50.54(p) and 10 CFR Part 73. The requested exemptions from the security requirements for Humboldt Bay Power Plant (HBPP) would be effective after the spent fuel has been removed from the reactor site by the licensee and relocated to the new Independent Spent Fuel Storage Installation (ISFSI).

This Environmental Assessment (EA) has been developed in accordance with the requirements of 10 CFR 51.21.

### II. Environmental Assessment

*Background*

HBPP was permanently shut down in July 1976, and until recently was in safe storage condition (SAFSTOR). SAFSTOR is defined as a method of decommissioning in which the nuclear facility is placed and maintained in safe condition for an extended period of time to permit radioactive material to decay to levels that facilitate subsequent decontamination and decommissioning of the facility. A decommissioning plan was approved in July 1988. Subsequent to the 1997 decommissioning rule, the licensee converted its decommissioning plan into its Defueled Safety Analysis Report which is updated every two years. A Post Shutdown Decommissioning Activities Report was issued by the licensee in February 1998. On September 2, 2005, the NRC approved the HB ISFSI Physical Security Plan (PSP) that PG&E submitted on July 11, 2005. On November 17, 2005, the NRC issued Materials License SNM–2514 for the HBPP ISFSI that included approval of the HBPP ISFSI PSP. In approving the Humboldt Bay ISFSI PSP, the NRC found that the plan meets the security requirements in 10 CFR Part 72 Subpart H, ''Physical Protection,'' meets the requirements in 10 CFR 73.51, ''Requirements for the Physical Protection of Stored Spent Nuclear Fuel and High-Level Radioactive Waste,'' and provides reasonable assurance that physical protection of the spent nuclear fuel stored at the ISFSI will not constitute an unreasonable risk to public health and safety. Currently, the licensee is maintaining the reactor security plan consistent with the requirements of 10 CFR Part 73 and 10 CFR 50.54(p). Contingent upon approval of the subject exemption and associated amendment, the ISFSI PSP will become effective upon the complete transfer of spent nuclear fuel from the spent fuel pool to the ISFSI.

*Proposed Action*

The proposed action would eliminate the security plan requirements for the 10 CFR Part 50 licensed site after the

spent nuclear fuel has been transferred to the 10 CFR Part 72 licensed ISFSI.

*Need for Proposed Action*

Sections 50.54(p) and Part 73 of Title 10 of the Code of Federal Regulations require that reactor licensees establish and maintain physical protection and security for activities involving nuclear fuel within the 10 CFR Part 50 licensed area of a facility. The proposed action is needed because there will no longer be any nuclear fuel in the 10 CFR Part 50 licensed facility to protect against radiological sabotage or diversion after the transfer of the spent nuclear fuel to the HBPP ISFSI. Subpart H of 10 CFR Part 72 establishes the physical protection requirements that will be applicable here, and relies on 10 CFR 73.51 to define the requirements for physical protection of spent nuclear fuel stored in an ISFSI under a specific license issued pursuant to 10 CFR Part 72. The HBPP ISFSI has a separate NRC approved security plan to protect the spent nuclear fuel stored there from radiological sabotage and diversion. The proposed action will allow the licensee to conserve resources for decommissioning activities.

## III. Environmental Impacts of the Proposed Action

*Radiological Impacts*

The NRC has completed its evaluation of the proposed action and concludes that exempting the facility from certain security requirements will not have any adverse environmental impacts. There will be minor savings of energy and vehicular use associated with the security force no longer performing patrols, checks, and normal security functions.

The proposed action will not significantly increase the probability or consequences of accidents, no changes are being made in the types of any effluents that may be released off site, and there is no significant increase in occupational or public radiation exposure. Therefore, there are no significant radiological environmental impacts associated with the proposed action.

*Non-Radiological Impacts*

With regard to potential non-radiological impacts, the proposed action does not involve any historic sites. It does not affect non-radiological plant effluents and has no other environmental impact. Therefore, there are no significant non-radiological environmental impacts associated with the proposed action.

*Cumulative Impacts*

The NRC has determined that there are no adverse cumulative impacts associated with this proposed action.

*Alternatives to the Proposed Action*

The alternative to considering the exemption request for approval is to deny the request, which is equivalent to the no-action alternative. Denial of the application would result in no change in current environmental impacts. The environmental impacts of the proposed action and the alternative action are similar.

*Agencies and Persons Consulted*

The NRC contacted the California Radiologic Health Branch in the State Department of Health Services concerning this request. There were no comments, concerns or objections from the state official.

NRC staff determined that the proposed action is not a major decommissioning activity and will not affect listed or proposed endangered species, nor critical habitat. Therefore, no further consultation is required under Section 7 of the Endangered Species Act. Likewise, NRC staff determined that the proposed action is not the type of activity that has the potential to cause previously unconsidered effects on historic properties, as consultation for licensing of the ISFSI has been conducted previously. There are no additional impacts to historic properties associated with the change in security requirements. Therefore, no consultation is required under Section 106 of the National Historic Preservation Act.

## IV. Finding of No Significant Impact

On the basis of this EA, the NRC concludes that the proposed action will not have a significant effect on the quality of the human environment. Accordingly, the NRC has determined that a finding of no significant impact is appropriate, and that preparation of an environmental impact statement is not warranted.

## V. Further Information

For further information with respect to the proposed action, see the licensee's letter, ''License Amendment Request 07–03, Deletion of Paragraph 2.C.1 of Facility Operating License No. DPR–7, Exemption from 10 CFR 50.54(p) and 10 CFR Part 73, and Rescission of NRC Orders EA–02–077 and EA–03–099,'' November 5, 2007. (ML073120016).

The NRC Public Documents Room is located at NRC Headquarters in Rockville, Maryland, and can be contacted at (800) 397–4209. Documents may be examined, and/or copied for a fee, at the NRC's Public Document Room (PDR), located at One White Flint North, 11555 Rockville Pike (first floor), Rockville, Maryland. Publicly available records will be accessible electronically from the Agencywide Documents Access and Management System's (ADAMS) Public Library component on the NRC Web site, *http://www.nrc.gov* (the Public Electronic Reading Room).

Persons who do not have access to ADAMS or who encounter problems in accessing the documents located in ADAMS should contact the NRC PDR Reference staff by telephone at 1–800–397–4209, or 301–415–4737, or by e-mail at *pdr@nrc.gov.*

Dated at Rockville, Maryland, this 25th day of April, 2008.

For the Nuclear Regulatory Commission.

**Keith I. McConnell,**

*Deputy Director, Decommissioning and Uranium Recovery Licensing Directorate, Division of Waste Management and Environmental Protection, Office of Federal and State Materials and Environmental Management Programs.*

[FR Doc. E8–9937 Filed 5–5–08; 8:45 am]

BILLING CODE 7590–01–P

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## NUCLEAR REGULATORY COMMISSION

**[Docket No. 030–03297]**

## Notice of Availability of Environmental Assessment and Finding of No Significant Impact for License Amendment to Byproduct Materials License No. 45–00048–17, for the Unrestricted Release of the Virginia Commonwealth University's Incineration Facility in Ashland, VA

**AGENCY:** Nuclear Regulatory Commisson.

**ACTION:** Issuance of Environmental Assessment and Finding of No Significant Impact for License Amendment.

**FOR FURTHER INFORMATION CONTACT:** Penny Lanzisera, Medical Branch, Division of Nuclear Materials Safety, Region I, 475 Allendale Road, King of Prussia, Pennsylvania 19406; telephone (610) 337–5169; fax number (610) 337–5269; or by e-*mail: pan@nrc.gov*.

**SUPPLEMENTARY INFORMATION:**

## I. Introduction

The U.S. Nuclear Regulatory Commission (NRC) is considering the issuance of a license amendment to Byproduct Materials License No. 45–

00048–17. This license is held by Virginia Commonwealth University (the Licensee), located at several campuses in Richmond and Ashland, Virginia. Issuance of the amendment would authorize release of the Consumat Incinerator and areas adjacent to the Incinerator (together identified herein as the Facility) at the Animal Resources Hanover Farm, 119–121 Cheroy Road, Ashland, Virginia, for unrestricted use. The Licensee requested this action in a letter dated June 13, 2007. The NRC has prepared an Environmental Assessment (EA) in support of this proposed action in accordance with the requirements of Title 10, Code of Federal Regulations (CFR), Part 51 (10 CFR Part 51). Based on the EA, the NRC has concluded that a Finding of No Significant Impact (FONSI) is appropriate with respect to the proposed action. The amendment will be issued to the Licensee following the publication of this FONSI and EA in the **Federal Register**.

## II. Environmental Assessment

*Identification of Proposed Action*

The proposed action would approve the Licensee's June 13, 2007, license amendment request, resulting in release of the Facility for unrestricted use. License No. 45–00048–17 was issued on March 20, 1962, pursuant to 10 CFR Part 30, and has been amended periodically since that time. This license authorizes the Licensee to use unsealed byproduct material for purposes of conducting research and development activities on laboratory bench tops and in hoods. The license includes a license condition allowing disposal of licensed material by incineration at the Facility.

The Facility is situated on the 88 acre Animal Resources Hanover Farm. Most of the site's acreage is used as a farm by the Licensee's Division of Animal Resources. The site on which the Facility is located is in a residential area. At the site, incineration of licensed materials was confined to the Consumat Incinerator.

In the mid-1980's, the Licensee ceased licensed activities and initiated a survey, and decontamination of the Facility. Based on the Licensee's historical knowledge of the site and the conditions of the Facility, the Licensee determined that only routine decontamination activities, in accordance with their NRC-approved, operating radiation safety procedures, were required. The Licensee was not required to submit a decommissioning plan to the NRC because worker cleanup activities and procedures are consistent with those approved for routine operations. The Licensee conducted surveys of the Facility and provided information to the NRC to demonstrate that it meets the criteria in Subpart E of 10 CFR Part 20 for unrestricted release.

*Need for the Proposed Action*

The Licensee has ceased conducting licensed activities at the Facility, and seeks the unrestricted use of its Facility.

**Environmental Impacts of the Proposed Action**

The historical review of licensed activities conducted at the Facility shows that such activities involved use of the following radionuclides with half-lives greater than 120 days: hydrogen–3 and carbon–14. Prior to performing the final status survey, the Licensee conducted decontamination activities, as necessary, in the areas of the Facility affected by these radionuclides.

The Licensee conducted a final status survey of the Facility on July 23, 2007. This survey covered the Consumat Incinerator and adjacent surface soil. The final status survey report was attached to the Licensee's letter dated August 9, 2007. The Licensee elected to demonstrate compliance with the radiological criteria for unrestricted release as specified in 10 CFR 20.1402 by using the screening approach described in NUREG–1757, ''Consolidated NMSS Decommissioning Guidance,'' Volume 2. The Licensee used the radionuclide-specific derived concentration guideline levels (DCGLs), developed there by the NRC, which comply with the dose criterion in 10 CFR 20.1402. These DCGLs define the maximum amount of residual radioactivity on building surfaces, equipment, and materials, and in soils, that will satisfy the NRC requirements in Subpart E of 10 CFR Part 20 for unrestricted release. The Licensee's final status survey results were below these DCGLs and are in compliance with the As Low As Reasonably Achievable (ALARA) requirement of 10 CFR 20.1402. The NRC thus finds that the Licensee's final status survey results are acceptable.

Based on its review, the staff has determined that the affected environment and any environmental impacts associated with the proposed action are bounded by the impacts evaluated by the ''Generic Environmental Impact Statement in Support of Rulemaking on Radiological Criteria for License Termination of NRC-Licensed Nuclear Facilities'' (NUREG–1496) Volumes 1–3 (ML042310492, ML042320379, and ML042330385). The staff finds there were no significant environmental impacts from the use of radioactive material at the Facility. The NRC staff reviewed the docket file records and the final status survey report to identify any non-radiological hazards that may have impacted the environment surrounding the Facility. No such hazards or impacts to the environment were identified. The NRC has identified no other radiological or non-radiological activities in the area that could result in cumulative environmental impacts.

The NRC staff finds that the proposed release of the Facility for unrestricted use is in compliance with 10 CFR 20.1402. Although the Licensee will continue to perform licensed activities at other areas of the Ashland site, the Licensee must ensure that this decommissioned area does not become recontaminated. Before the license can be terminated, the Licensee will be required to show that the entire Ashland site, including previously-released areas, complies with the radiological criteria in 10 CFR 20.1402. Based on its review, the staff considered the impact of the residual radioactivity at the Facility and concluded that the proposed action will not have a significant effect on the quality of the human environment.

*Environmental Impacts of the Alternatives to the Proposed Action*

Due to the largely administrative nature of the proposed action, its environmental impacts are small. Therefore, the only alternative the staff considered is the no-action alternative, under which the staff would leave things as they are by simply denying the amendment request. This no-action alternative is not feasible because it conflicts with 10 CFR 30.36(d), requiring that decommissioning of byproduct material facilities be completed and approved by the NRC after licensed activities cease. The NRC's analysis of the Licensee's final status survey data confirmed that the Facility meets the requirements of 10 CFR 20.1402 for unrestricted release. Additionally, denying the amendment request would result in no change in current environmental impacts. The environmental impacts of the proposed action and the no-action alternative are therefore similar, and the no-action alternative is accordingly not further considered.

*Conclusion*

The NRC staff has concluded that the proposed action is consistent with the NRC's unrestricted release criteria specified in 10 CFR 20.1402. Because the proposed action will not significantly impact the quality of the human environment, the NRC staff

concludes that the proposed action is the preferred alternative.

*Agencies and Persons Consulted*

NRC provided a draft of this Environmental Assessment to the State of Virginia for review on February 29, 2008. On March 11, 2008, the State of Virginia responded by email. The State agreed with the conclusions of the EA, and otherwise had no comments.

The NRC staff has determined that the proposed action is of a procedural nature, and will not affect listed species or critical habitat. Therefore, no further consultation is required under Section 7 of the Endangered Species Act. The NRC staff has also determined that the proposed action is not the type of activity that has the potential to cause effects on historic properties. Therefore, no further consultation is required under Section 106 of the National Historic Preservation Act.

**III. Finding of No Significant Impact**

The NRC staff has prepared this EA in support of the proposed action. On the basis of this EA, the NRC finds that there are no significant environmental impacts from the proposed action, and that preparation of an environmental impact statement is not warranted. Accordingly, the NRC has determined that a Finding of No Significant Impact is appropriate.

**IV. Further Information**

Documents related to this action, including the application for license amendment and supporting documentation, are available electronically at the NRC's Electronic Reading Room at *http://www.nrc.gov/reading-rm/adams.html.* From this site, you can access the NRC's Agencywide Document Access and Management System (ADAMS), which provides text and image files of NRC's public documents. The documents related to this action are listed below, along with their ADAMS accession numbers.

[1]. Letters dated June 13, 2007 [ML071730550], August 9, 2007 [ML072270622], and September 11, 2007 [ML072600094];

[2]. NUREG–1757, ''Consolidated NMSS Decommissioning Guidance;''

[3]. Title 10, Code of Federal Regulations, Part 20, Subpart E, ''Radiological Criteria for License Termination;''

[4]. Title 10, Code of Federal Regulations, Part 51, ''Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions;'' and

[5]. NUREG–1496, ''Generic Environmental Impact Statement in Support of Rulemaking on Radiological Criteria for License Termination of NRC-Licensed Nuclear Facilities.''

If you do not have access to ADAMS, or if there are problems in accessing the documents located in ADAMS, contact the NRC Public Document Room (PDR) Reference staff at 1–800–397–4209, 301–415–4737, or by e-mail to *pdr@nrc.gov*. These documents may also be viewed electronically on the public computers located at the NRC's PDR, O 1 F21, One White Flint North, 11555 Rockville Pike, Rockville, MD 20852. The PDR reproduction contractor will copy documents for a fee.

Dated at 475 Allendale Road, King of Prussia, Pennsylvania this 28th day of April 2008.

For the Nuclear Regulatory Commission.

**Pamela J. Henderson,**

*Chief, Medical Branch, Division of Nuclear Materials Safety, Region I.*

[FR Doc. E8–9916 Filed 5–5–08; 8:45 am]

BILLING CODE 7590–01–P

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## NUCLEAR REGULATORY COMMISSION

**[Docket No. 50–206]**

## Southern California Edison; Notice of Consideration of Issuance of Amendment to San Onofre Nuclear Generation Station Unit 1 Facility Operating License and Opportunity for a Hearing

**AGENCY:** U.S. Nuclear Regulatory Commission.

**ACTION:** Notice of license amendment, and opportunity to request a hearing.

**FOR FURTHER INFORMATION CONTACT:** James C. Shepherd, Project Manager, Reactor Decommissioning Branch, Division of Waste Management and Environmental Protection, Office of Federal and State Materials and Environmental Management Programs, U.S. Nuclear Regulatory Commission, Rockville, MD 20852. Telephone: (301) 415–6712; fax number: (301) 415–6712; e-mail: *James.Shepherd@nrc.gov.*

The Nuclear Regulatory Commission (NRC) has received, by letter dated December 19, 2007 (ML080580468), a license amendment application from Southern California Edison (the Licensee), regarding its San Onofre Nuclear Generating Station (SONGS) Unit 1 site located in San Onofre, California. License No. DPR–13 authorizes the licensee to decommission Unit 1 to the unrestricted use criteria of 10 CFR 20.1402. In accordance with provisions of 10 CFR 50.83 (Release of Part of a Power Reactor Facility or Site for Unrestricted Use), the Licensee requests release from the NRC license, for unrestricted use, a parcel of the ocean bottom leased from the California State Lands Commission, as well as the offshore portion of the Circulating Water System beneath that parcel of seabed floor. The structures comprising this portion of the system have been isolated from the plant. Following approval of this amendment, the Licensee will abandon these structures in place.

An NRC administrative review, documented in a letter to Southern California Edison dated January 18, 2008 (ML080170571), found the application acceptable to begin a technical review. If the NRC approves the amendment, the approval will be documented in an amendment to NRC License No. DPR–13. However, before approving the proposed amendment, the NRC will need to make the findings required by the Atomic Energy Act of 1954, as amended, and NRC's regulations. These findings will be documented in a Safety Evaluation Report and an Environmental Assessment.

Within 60 days of the date this notice is published in the **Federal Register**, any person(s) whose interest may be affected may file a request for hearing/petition to intervene. As required by 10 CFR 2.309, a petition for leave to intervene shall set forth with particularity the interest of the petitioner/requestor in the proceeding, and how that interest may be affected by the results of the proceeding. The petition should specifically explain the reasons why intervention should be permitted with particular reference to the following general requirements: (1) The name, address and telephone number of the requestor or petitioner; (2) the nature of the requestor's/petitioner's right under the Act to be made a party to the proceeding; (3) the nature and extent of the requestor's/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 requestor's/petitioner's interest. The petition must also identify the specific contentions which the petitioner/requestor seeks to have litigated at 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/requestor shall provide a brief explanation of the bases for the contention and a concise statement of the alleged facts or expert opinion which 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 those specific sources and documents of which the petitioner is aware and on which the petitioner intends to rely to establish those facts or expert opinion. The petition must include sufficient information to show that a genuine dispute exists with the applicant on a material issue of law or fact. Contentions shall be limited to matters within the scope of the amendment under consideration. The contention must be one which, if proven, would entitle the petitioner/requestor to relief. A petitioner/requestor who fails to satisfy these requirements 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, and have the opportunity to participate fully in the conduct of the hearing.

A request for hearing or a petition for leave to intervene must be filed in accordance with the NRC E-Filing rule, which the NRC promulgated on August 28, 2007 (72 FR 49139). The E-Filing process requires participants to submit and serve documents over the internet or in some cases to mail copies on electronic storage media. Participants may not submit paper copies of their filings unless they seek a waiver in accordance with the procedures described below.

To comply with the procedural requirements of E-Filing, at least five (5) days prior to the filing deadline, the petitioner/requestor must contact the Office of the Secretary by e-mail at *hearingdocket@nrc.gov,* or by calling (301) 415–1677, to request (1) a digital ID certificate, which allows the participant (or its counsel or representative) to digitally sign documents and access the E-Submittal server for any proceeding in which it is participating; and/or (2) creation of an electronic docket for the proceeding (even in instances in which the petitioner/requestor (or its counsel or representative) already holds an NRC-issued digital ID certificate). Each petitioner/requestor will need to download the Workplace Forms Viewer™ to access the Electronic Information Exchange (EIE), a component of the E-Filing system. The Workplace Forms Viewer™ is free and is available at *http://www.nrc.gov/site-help/e-submittals/install-viewer.html.* Information about applying for a digital ID certificate is available on NRC's public Web site at *http://www.nrc.gov/site-help/e-submittals/apply-certificates.html.*

Once a petitioner/requestor has obtained a digital ID certificate, had a docket created, and downloaded the EIE viewer, it can then submit a request for hearing or petition for leave to intervene. Submissions should be in Portable Document Format (PDF) in accordance with NRC guidance available on the NRC public Web site at *http://www.nrc.gov/site-help/e-submittals.html.* A filing is considered complete at the time the filer submits its documents through EIE. To be timely, an electronic filing must be submitted to the EIE system no later than 11:59 p.m. Eastern Time on the due date. Upon receipt of a transmission, the E-Filing system time-stamps the document and sends the submitter an e-mail notice confirming receipt of the document. The EIE system also distributes an e-mail notice that provides access to the document to the NRC 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 documents on those participants separately. Therefore, applicants and other participants (or their counsel or representative) must apply for and receive a digital ID certificate before a hearing request/petition to intervene is filed so that they can obtain access to the document via the E-Filing system.

A person filing electronically may seek assistance through the ''Contact Us'' link located on the NRC Web site at *http://www.nrc.gov/site-help/e-submittals.html* or by calling the NRC technical help line, which is available between 8:30 a.m. and 4:15 p.m., Eastern Time, Monday through Friday. The help line number is (800) 397–4209 or locally, (301) 415–4737.

Participants who believe that they have a good cause for not submitting documents electronically must file a motion, in accordance with 10 CFR 2.302(g), with their initial paper filing requesting authorization to continue to submit documents in paper format. Such filings must be submitted by: (1) First class mail addressed to the Office of the Secretary of the Commission, U.S. Nuclear Regulatory Commission, Washington, DC 20555–0001, Attention: Rulemaking and Adjudications Staff; or (2) courier, express mail, or expedited delivery service to the Office of the Secretary, Sixteenth Floor, One White Flint North, 11555 Rockville, Pike, Rockville, Maryland, 20852, Attention: Rulemaking and Adjudications Staff. Participants filing a document in this manner are responsible for serving the document on all other participants. Filing is considered complete by first-class mail as of the time of deposit in the mail, or by courier, express mail, or expedited delivery service upon depositing the document with the provider of the service.

Non-timely requests and/or petitions and contentions will not be entertained absent a determination by the Commission, the presiding officer, or the Atomic Safety and Licensing Board that the petition and/or request should be granted and/or the contentions should be admitted, based on a balancing of the factors specified in 10 CFR 2.309(c)(1)(i)–(viii).

Documents submitted in adjudicatory proceedings will appear in NRC's electronic hearing docket which is available to the public at *http://ehd.nrc.gov/EHD_Proceeding/home.asp,* unless excluded pursuant to an order of the Commission, an Atomic Safety and Licensing Board, or a Presiding Officer. Participants are requested not to include personal privacy information, such as social security numbers, home addresses, or home phone numbers in their filings. 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 are requested not to include copyrighted materials in their submissions.

For further details with respect to this license amendment application, see the application for amendment dated December 19, 2007 (ML080580468). Documents are generally available for public inspection at the Commission's PDR, located at One White Flint North, Public File Area O1 F21, 11555 Rockville Pike (first floor), Rockville, Maryland. Publicly available records will be accessible electronically from the ADAMS Public Electronic Reading Room on the Internet at the NRC Web site, *http://www.nrc.gov/reading-rm/adams.html.* Persons who do not have access to ADAMS or who encounter problems in accessing the documents located in ADAMS should contact the NRC PDR Reference staff by telephone at 1–800–397–4209, or 301–415–4737, or by e-mail to *pdr@nrc.gov.*

Dated at Rockville, Maryland, this 25th day of April.

For the Nuclear Regulatory Commission.

**Keith I. McConnell,**

*Deputy Director, Decommissioning and Uranium Recovery Licensing Directorate, Division of Waste Management and Environmental Protection, Office of Federal and State Materials and Environmental Management Programs.*

[FR Doc. E8–9940 Filed 5–5–08; 8:45 am]

**BILLING CODE 7590–01–P**

## NUCLEAR REGULATORY COMMISSION

### Sunshine Federal Register Notice

**AGENCY HOLDING THE MEETINGS:** Nuclear Regulatory Commission.

**DATES:** Weeks of May 5, 12, 19, 26, June 2, 9, 2008.

**PLACE:** Commissioners' Conference Room, 11555 Rockville Pike, Rockville, Maryland.

**STATUS:** Public and Closed.

**Week of May 5, 2008**

There are no meetings scheduled for the Week of May 5, 2008.

**Week of May 12, 2008—Tentative**

*Wednesday, May 14, 2008*

11 a.m.—Discussion of Security Issues (Closed—Ex. 1).

*Friday, May 16, 2008*

9 a.m.—Briefing on NRC Infrastructure (Public Meeting), (Contact: Peter Rabideau, 301 415–7323).

This meeting will be webcast live at the Web address—*http://www.nrc.gov.*

**Week of May 19, 2008—Tentative**

There are no meetings scheduled for the Week of May 19, 2008.

**Week of May 26, 2008—Tentative**

*Tuesday, May 27, 2008*

1:30 p.m.—NRC All Hands Meeting (Public Meeting), Marriott Bethesda North Hotel, 5701 Marinelli Road, Rockville, MD 20852.

*Wednesday, May 28, 2008*

9:30 a.m.—Briefing on Equal Employment Opportunity (EEO) and Workforce Planning (Public Meeting) (Contact: Kristin Davis, 301 492–2266).

This meeting will be webcast live at the Web address—*http://www.nrc.gov.*

**Week of June 2, 2008—Tentative**

*Wednesday, June 4, 2008*

9:30 a.m.—Briefing on Results of the Agency Action Review Meeting (AARM) (Public Meeting) (Contact: Shaun Anderson, 301 415–2039).

This meeting will be webcast live at the Web address—*http://www.nrc.gov.*

*Thursday, June 5, 2008*

1:30 p.m.—Meeting with Advisory Committee on Reactor Safeguards (ACRS) (Public Meeting) (Contact: Tanny Santos, 301 415–7270).

This meeting will be webcast live at the Web address—*http://www.nrc.gov.*

**Week of June 9, 2008—Tentative**

There are no meetings scheduled for the Week of June 9, 2008.

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*The schedule for Commission meetings is subject to change on short notice. To verify the status of meetings, call (recording)—(301) 415–1292. Contact person for more information: Michelle Schroll, (301) 415–1662.

* * * * *

*Additional Information:* Affirmation of ''a. AmerGen Energy Company, LLC (License Renewal for Oyster Creek Nuclear Generating Station), Docket No. 50–219–LR, Citizens' Petition for Review of LBP–07–17 and Other Interlocutory Decisions in the Oyster Creek Proceeding (Tentative)'' and ''b. Oyster Creek, Indian Point, Pilgrim, and Vermont Yankee License Renewals, Docket Nos. 50–219–LR, 50–247–LR, 50–286–LR, 50–293–LR, 50–271–LR, Petition to Suspend Proceedings (Tentative)'' previously tentatively scheduled on Tuesday, April 29, 2008, has been postponed. No new date has been set.

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The NRC Commission Meeting Schedule can be found on the Internet at: *http://www.nrc.gov/about-nrc/policy-making/schedule.html.*

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The NRC provides reasonable accommodation to individuals with disabilities where appropriate. If you need a reasonable accommodation to participate in these public meetings, or need this meeting notice or the transcript or other information from the public meetings in another format (e.g. braille, large print), please notify the NRC's Disability Program Coordinator, Rohn Brown, at 301–492–2279, TDD: 301–415–2100, or by e-mail at *REB3@nrc.gov.* Determinations on requests for reasonable accommodation will be made on a case-by-case basis.

* * * * *

This notice is distributed by mail to several hundred subscribers; if you no longer wish to receive it, or would like to be added to the distribution, please contact the Office of the Secretary, Washington, DC 20555 (301–415–1969). In addition, distribution of this meeting notice over the Internet system is available. If you are interested in receiving this Commission meeting schedule electronically, please send an electronic message to *dkw@nrc.gov.*

Dated: May 1, 2008.

**R. Michelle Schroll,**

*Office of the Secretary.*

[FR Doc. 08–1224 Filed 5–2–08; 10:07 am]

BILLING CODE 7590–01–P

## NUCLEAR REGULATORY COMMISSION

**[Docket No. 50–336]**

### Dominion Nuclear Connecticut, Inc; Notice of Withdrawal of Application for Amendment to Renewed Facility Operating License No. DPR–65 Millstone Power Station, Unit No. 2

The U.S. Nuclear Regulatory Commission (the Commission) has granted the request of Dominion Nuclear Connecticut, Inc., (the licensee) to withdraw its February 20, 2007, application for proposed amendment to Renewed Facility Operating License No. DPR–65 for the Millstone Power Station, Unit No. 2 (MPS2), located in New London County, Connecticut.

The proposed amendment would have revised the MPS2 Technical Specifications to eliminate Surveillance Requirement 4.5.2.e, which verifies charging pump flowrate. The Commission had previously issued a Notice of Consideration of Issuance of Amendment published in the **Federal Register** on December 4, 2007 (72 FR 68209). However, by letter dated April 17, 2008, the licensee withdrew the proposed change. For further details with respect to this action, see the application for amendment dated February 20, 2007, as supplemented by letter dated March 6, 2008, and the licensee's letter dated April 17, 2008, which withdrew the application for a license amendment. Documents may be examined, and/or copied for a fee, at the NRC's Public Document Room (PDR), located at One White Flint North, Public File Area O1 F21, 11555 Rockville Pike (first floor), Rockville, Maryland. Publicly available records will be accessible electronically from the Agencywide Documents Access and Management Systems (ADAMS) Public Electronic Reading Room on the internet at the NRC Web site, *http://www.nrc.gov/reading-rm.html.* Persons who do not have access to ADAMS or who encounter problems in accessing the documents located in ADAMS should contact the NRC PDR Reference staff by telephone at 1–800–397–4209, or 301–415–4737 or by e-mail to *pdr@nrc.gov.*

Dated at Rockville, Maryland, this 28th day of April, 2008.

For the Nuclear Regulatory Commission.

**John D. Hughey,**

*Project Manager, Plant Licensing Branch I–2, Division of Operating Reactor Licensing, Office of Nuclear Reactor Regulation.*

[FR Doc. E8–9936 Filed 5–5–08; 8:45 am]

BILLING CODE 7590–01–P

## SECURITIES AND EXCHANGE COMMISSION

**[Investment Company Act Release No. 28258; 813–362]**

## The Bessemer Group, Incorporated, et al.; Notice of Application

April 29, 2008.

**AGENCY:** Securities and Exchange Commission (''Commission'').

**ACTION:** Notice of application for an order under sections 6(b) and 6(e) of the Investment Company Act of 1940 (the ''Act'') granting an exemption from all provisions of the Act, except section 9 and sections 36 through 53 and the rules and regulations under the Act. With respect to sections 17 and 30 of the Act, and the rules and regulations thereunder, and rule 38a–1 under the Act, the exemption is limited as set forth in the application.

*Summary of Application:* Applicants request an order to exempt certain limited liability companies and other investment vehicles formed for the benefit of eligible employees of The Bessemer Group, Incorporated (''Bessemer'') and its affiliates from certain provisions of the Act. Each limited liability company or other investment vehicle will be an ''employees' securities company'' within the meaning of section 2(a)(13) of the Act.

*Applicants:* Bessemer Employee Investment Fund I LLC, Bessemer Employee Fund-Fifth Avenue LLC, Bessemer Employee Fund-OWGREF LLC (each a ''Bessemer Employee Fund''), Bessemer, and Bessemer Trust Company, N.A. (''BTNA'').

*Filing Dates:* The application was filed on March 30, 2006, and amended on March 12, 2008. Applicants have agreed to file an amendment during the notice period, the substance of which is reflected in this notice.

*Hearing or Notification of Hearing:* An order granting the application will be issued unless the Commission orders a hearing. Interested persons may request a hearing by writing to the Commission's Secretary and serving applicants with a copy of the request, personally or by mail. Hearing requests should be received by the Commission by 5:30 p.m. on May 27, 2008, and should be accompanied by proof of service on applicants, in the form of an affidavit or, for lawyers, a certificate of service. Hearing requests should state the nature of the writer's interest, the reason for the request, and the issues contested. Persons who wish to be notified of a hearing may request notification by writing to the Commission's Secretary.

**ADDRESSES:** Secretary, U.S. Securities and Exchange Commission, 100 F Street, NE., Washington, DC 20549–1090; Applicants, 630 Fifth Avenue, New York, NY 10111.

**FOR FURTHER INFORMATION CONTACT:** Christine Y. Greenlees, Senior Counsel, at (202) 551–6879, or Mary Kay Frech, Branch Chief, at (202) 551–6821 (Division of Investment Management, Office of Investment Company Regulation).

**SUPPLEMENTARY INFORMATION:** The following is a summary of the application. The complete application may be obtained for a fee at the Commission's Public Reference Branch, 100 F Street, NE., Washington DC 20549–1520 (telephone (202) 551–5850).

### Applicants' Representations

1. Bessemer is a bank holding company registered under the Bank Holding Company Act of 1956. The shares of Bessemer are privately held by descendants of Henry Phipps directly and through a series of trusts for the benefit of descendants of Henry Phipps. BTNA, a national bank, is a wholly-owned subsidiary of Bessemer. BTNA provides trust, custody, investment management and other fiduciary services to very high net worth individuals and family groups. Bessemer also has several other wholly-owned direct and indirect subsidiaries that are banks or trust companies. Bessemer and its ''affiliates,'' as defined in rule 12b–2 under the Securities Exchange Act of 1934 (the ''1934 Act''), are referred to collectively as ''Bessemer'' or ''Bessemer entities.''

2. Bessemer has established the Bessemer Employee Funds as part of a program designed to create capital building opportunities that are competitive with those at other financial institutions and to facilitate Bessemer's recruitment and retention of high caliber professionals. Bessemer expects to establish in the future other investment vehicles on terms substantially the same as those described in the application for the Bessemer Employee Funds (the ''Other Employee Funds,'' and together with Bessemer Employee Funds, the ''Employee Funds'').

3. Each of the Employee Funds is or will be a limited partnership or limited liability company, organized under the laws of the state of Delaware or another jurisdiction. Each Employee Fund will be an ''employees' securities company'' within the meaning of section 2(a)(13) of the Act. Each of the Employee Funds will operate as a non-diversified closed-end management investment company.

4. Each Employee Fund will have a Manager (as defined below) that is controlled by, or is under common control with, Bessemer and that is either (i) Registered as an investment adviser under the Investment Advisers Act of 1940 (''Advisers Act''), (ii) exempt from the registration requirements of the Advisers Act by virtue of section 203(b)(3) of the Advisers Act, or (iii) excluded from the definition of investment adviser under the Advisers Act because it is a bank. The initial Manager of Bessemer Employee Funds is BTNA, and the Manager of each Other Employee Fund is or will be BTNA or an affiliate that controls, is controlled by or is under common control with BTNA. BTNA is exempt from registration under the Advisers Act. The term ''Manager'' refers to BTNA, and any other affiliate that controls, is controlled by or is under common control with BTNA that acts as the manager of an Employee Fund. The Manager will manage, operate, and control each of the Employee Funds. However, the Manager may exercise its authority through its board of managers or directors, including a committee of Bessemer employees. The Manager will delegate management responsibility only to entities that control, are controlled by, or are under common control with Bessemer.

5. The Employee Funds will invest in one or more private ''fund of funds'' managed by BTNA and operated primarily for investment by clients of BTNA and its affiliates (the ''Underlying Funds''),[1] or alongside the Underlying Funds in the private investment funds and other investments in which the Underlying Funds invest.

6. A Bessemer Employee Fund may pay an administrative fee to its Manager. A Bessemer Employee Fund may also pay the Manger or Bessemer annually any ''carried interest'' to which the Manager is entitled (from the Employee Fund or from a Third Party Fund managed by the Manager or a Bessemer entity in which the Employee Fund invests).[2]

[1] Applicants are not requesting any exemption from any provision of the Act or any rule thereunder that may govern an Employee Fund's eligibility to invest in an Underlying Fund relying on section 3(c)(1) or 3(c)(7) of the Act or an Underlying Fund's status under the Act.

[2] A ''carried interest'' is an allocation to the Manager based on the net gains of an investment program. A Manager that is registered under the Advisers Act may charge a carried interest only if permitted by rule 205–3 under the Advisers Act. Any carried interest paid to a Manager that is not registered under the Advisers Act will be structured to comply with section 205(b)(3) of the Advisers

7. Interests (''Interests'') in the Employee Funds will be offered without registration in reliance on section 4(2) of the Securities Act of 1933 (the ''Securities Act'') or Regulation D under the Securities Act (''Regulation D''), and will be sold only to Bessemer, Eligible Employees (as defined below), and certain related interests of Eligible Employees as described below. Prior to offering Interests to an Eligible Employee, the Manager must reasonably believe that the Eligible Employee will be a sophisticated investor capable of understanding and evaluating the risks of participating in an Employee Fund without the benefit of regulatory safeguards and is able to afford a loss of any investment. All investors in an Employee Fund will be ''Members'' or ''Participants.''

8. An ''Eligible Employee'' is an individual who is a current or former employee, officer, or director of Bessemer or its direct and indirect subsidiaries and an ''accredited investor'' as defined in rule 501(a)(5) or 501(a)(6) of Regulation D.[3] In the discretion of Bessemer and at the request of an Eligible Employee, Interests may be assigned by such Eligible Employee to a Qualified Participant (as defined below) of an Eligible Employee or purchased by the Qualified Participant. A ''Qualified Participant'' is an individual or entity that is an Eligible Family Member or Qualified Entity (in each case as defined below), respectively, of an Eligible Employee and, if such individual or entity is purchasing an Interest, come within one of the categories of an ''accredited investor'' under rule 501(a) of Regulation D. An ''Eligible Family Member'' is a parent, sibling, spouse, child, spouse of a child, or grandchild of an Eligible Employee (including step and adoptive relationships). A ''Qualified Entity'' is (a) A trust of which the trustee, grantor and/or beneficiary is an Eligible Employee, (b) a partnership, limited liability company, corporation or other entity controlled by an Eligible Employee, or (c) an individual retirement account, trust or other entity established solely for the benefit of the Eligible Employee or Eligible Family Members of an Eligible Employee. Bessemer may in its discretion circumscribe more narrowly the permitted categories of Qualified Participants and Qualified Entities that may invest or own an Interest in an Employee Fund.

9. The terms of an Employee Fund will be fully disclosed to each Eligible Employee at the time the Eligible Employee is invited to participate in the Employee Fund, and the Eligible Employee will be furnished with a copy of the operating agreement for the Employee Fund (the ''Employee Fund Agreement''). An Employee Fund will send its Members an audited financial statement as soon as practicable after the end of its fiscal year. In addition, as soon as practicable after the end of each fiscal year of each Employee Fund, the Manager of such Employee Fund will send a report to each Member of such Employee Fund setting forth the tax information necessary for the preparation by the Member of his, her or its federal and state income tax returns.

10. Interests in the Employee Funds will be non-transferable except with the prior written consent of the Manager. No person or entity will be admitted into an Employee Fund unless the person or entity is an Eligible Employee, a Qualified Participant of an Eligible Employee, or a Bessemer entity. No sales load will be charged in connection with the sale of Interests.

11. An Eligible Employee's Interest may be subject to repurchase or cancellation if the Eligible Employee's relationship with Bessemer terminates for any reason other than death, disability or normal retirement. Upon repurchase or cancellation, the Manager will pay to the Eligible Employee at least the lesser of (a) the net amount paid by the Eligible Employee to acquire the Interest (less prior distributions, plus a specified rate of return as determined by the Manager), or (b) the fair value of the Interest as determined in good faith at the time of repurchase or cancellation by the Manager. The terms of any repurchase or cancellation will apply equally to any Qualified Participant of an Eligible Employee.

12. Subject to the terms of the applicable Employee Fund Agreement, an Employee Fund will be permitted to enter into transactions involving (a) A Bessemer entity, (b) a portfolio investment, (c) any Member or person or entity affiliated with a Member, (d) an investment fund or separate account, organized primarily for the benefit of investors who are not affiliated with Bessemer, over which a Bessemer entity exercises investment discretion (a ''Third Party Fund''), or (e) any partner or other investor of a Third Party Fund that is not affiliated with Bessemer (a ''Third Party Investor''). Prior to entering into any of these transactions, the Manager or its delegate must determine that the terms are fair to the Members.

13. If the Manager or another Bessemer entity makes loans to an Other Employee Fund, the loans would bear interest at a rate no less favorable to the Employee Fund than the rate that could be obtained on an arm's length basis. An Employee Fund will not borrow from any person if the borrowing would cause any person not named in section 2(a)(13) of the Act to own securities of the Employee Fund (other than short-term paper). Any indebtedness of an Employee Fund will be non-recourse to the Members other than the Manager.

14. An Employee Fund will not acquire any security issued by a registered investment company if, immediately after the acquisition, the Employee Fund will own more than 3% of the outstanding voting stock of the registered investment company.

**Applicants' Legal Analysis**

1. Section 6(b) of the Act provides, in part, that the Commission will exempt employees' securities companies from the provisions of the Act to the extent that the exemption is consistent with the protection of investors. Section 6(b) provides that the Commission will consider, in determining the provisions of the Act from which the company should be exempt, the company's form of organization and capital structure, the persons owning and controlling its securities, the price of the company's securities and the amount of any sales load, how the company's funds are invested, and the relationship between the company and the issuers of the securities in which it invests. Section 2(a)(13) defines an employees' securities company, in relevant part, as any investment company all of whose securities (other than short-term paper) are beneficially owned (a) By current or former employees, or persons on retainer, of one or more affiliated employers, (b) by immediate family members of such persons, or (c) by such employer or employers together with any of the persons in (a) or (b).

2. Section 7 of the Act generally prohibits investment companies that are not registered under section 8 of the Act

Act as if an Employee Fund were a business development company as defined in the Advisers Act.

[3] Bessemer may also, in its discretion, purchase and full fund Interests in an Employee Fund and grant such Interests as bonuses to certain employees of Bessemer under non-contributory compensation programs in which the employee does not have the right to determine whether to participate. The recipients of such bonuses would become owners of equity interests in the Employee Funds without payment of consideration. The employees receiving bonus grants in an Employee Fund under such a program would not be required to be limited to persons who meet the accredited investor, sophistication, educational, professional, experience and related criteria or income levels described herein, and would be treated as ''Eligible Employees'' in respect of Interests received under such bonus grants.

from selling or redeeming their securities. Section 6(e) of the Act provides that, in connection with any order exempting an investment company from any provision of section 7, certain provisions of the Act, as specified by the Commission, will be applicable to the company and other persons dealing with the company as though the company were registered under the Act. Applicants request an order under sections 6(b) and 6(e) of the Act exempting the Employee Funds from all provisions of the Act, except section 9 and sections 36 through 53 of the Act, and the rules and regulations under the Act. With respect to sections 17 and 30 of the Act, and the rules and regulations thereunder, and rule 38a–1 under the Act, the exemption is limited as set forth in the application.

3. Section 17(a) generally prohibits any affiliated person of a registered investment company, or any affiliated person of an affiliated person, acting as principal, from knowingly selling or purchasing any security or other property to or from the company. Applicants request an exemption from section 17(a) to permit: (a) A Bessemer entity or a Third Party Fund (or any affiliated person of any such entity or Third Party Fund), acting as principal, to engage in any transaction directly or indirectly with any Employee Fund or any company controlled by such Employee Fund; (b) any Employee Fund to invest in or engage in any transaction with any Bessemer entity (or any affiliated person of any such entity) or a Third Party Fund, acting as principal (i) in which such Employee Fund, any company controlled by such Employee Fund or any Bessemer entity or Third Party Fund has invested or will invest, or (ii) with which such Employee Fund, any company controlled by such Employee Fund or any Bessemer entity or Third Party Fund is or will become otherwise affiliated; and (c) any Third Party Investor, acting as principal, to engage in any transaction directly or indirectly with an Employee Fund and any company controlled by the Employee Fund.

4. Applicants submit that an exemption from section 17(a) is consistent with the purposes of the Employee Funds and the protection of investors. Applicants state that the Participants in each Employee Fund will have been fully informed of the possible extent of such Employee Fund's dealings with Bessemer. Applicants also state that, as professionals employed in the investment, banking and financial services businesses, the Participants will be able to understand and evaluate the attendant risks. Applicants assert that the community of interest among the Participants in each Employee Fund and Bessemer is the best insurance against any risk of abuse.

5. Section 17(d) of the Act and rule 17d–1 under the Act prohibit any affiliated person of a registered investment company, or any affiliated person of such person, acting as principal, from participating in any joint arrangement with the company unless authorized by the Commission. Applicants request relief to permit affiliated persons of each Employee Fund (including, without limitation, the Manager, Bessemer, other Bessemer entities and a Third Party Fund), or affiliated persons of any of these persons (including, without limitation, the Third Party Investors) to participate in, or effect any transaction in connection with, any joint enterprise or other joint arrangement or profit-sharing plan in which such Employee Fund or a company controlled by such Employee Fund is a participant.

6. Applicants assert that compliance with section 17(d) would cause the Employee Fund to forego investment opportunities simply because a Participant in such Employee Fund or other affiliated person of such Employee Fund (or any affiliate of such a person) also had, or contemplated making, a similar investment. Applicants also submit that the types of investment opportunities considered by an Employee Fund often require each participant to make available funds in an amount that may be substantially greater than may be available to such Employee Fund alone. Applicants contend that, as a result, the only way in which an Employee Fund may be able to participate in such opportunities may be to co-invest with other persons, including its affiliates. Applicants assert that the flexibility to structure co-investments and joint investments will not involve abuses of the type section 17(d) and rule 17d–1 were designed to prevent.

7. Side-by-side investments held by a Third Party Fund, or by a Bessemer entity pursuant to a contractual obligation to a Third Party Fund, will not be subject to condition 3 below. Applicants note that it is common for a Third Party Fund to require that Bessemer invest its own capital in Third Party Fund investments, and that such Bessemer investments be subject to substantially the same terms as those applicable to the Third Party Fund's investments. Applicants believe it is important that the interests of the Third Party Fund take priority over the interests of the Employee Funds, and that the activities of the Third Party Fund not be burdened or otherwise affected by activities of the Employee Funds. In addition, applicants assert that the relationship of an Employee Fund to a Third Party Fund is fundamentally different from such Employee Fund's relationship to Bessemer. Applicants contend that the focus of, and the rationale for, the protections contained in the requested relief are to protect the Employee Funds from any overreaching by Bessemer in the employer/employee context, whereas the same concerns are not present with respect to the Employee Funds vis-á-vis the investors of a Third Party Fund.

8. Section 17(e) of the Act and rule 17e–1 under the Act limit the compensation an affiliated person may receive when acting as agent or broker for a registered investment company. Applicants request an exemption from section 17(e) to permit a Bessemer entity (including the Manager), acting as an agent or broker, to receive placement fees, advisory fees, or other compensation from an Employee Fund in connection with the purchase or sale by the Employee Fund of securities, provided that such placement fees, advisory fees or other compensation can be deemed ''usual and customary.'' Applicants state that for purposes of the application, fees or other compensation that are charged or received by a Bessemer entity will be deemed ''usual and customary'' only if (a) The Employee Fund is purchasing or selling securities alongside other unaffiliated third parties (including Third Party Funds) who are also similarly purchasing or selling securities, (b) the fees or other compensation that are being charged to the Employee Fund are also being charged to the unaffiliated third parties (including Third Party Funds), and (c) the amount of securities being purchased or sold by the Employee Fund does not exceed 50% of the total amount of securities being purchased or sold by the Employee Fund and the unaffiliated third parties (including Third Party Funds). Applicants assert that, because Bessemer does not wish to appear to be favoring the Employee Funds, compliance with section 17(e) would prevent an Employee Fund from participating in transactions where the Employee Fund is being charged lower fees than unaffiliated third parties. Applicants assert that the fees or other compensation paid by an Employee Fund to a Bessemer entity are those established at arm's length with unaffiliated third parties.

9. Rule 17e–1(b) under the Act requires that a majority of directors who are not ''interested persons'' (as defined in section 2(a)(19) of the Act) take actions and make approvals regarding commissions, fees, or other remuneration. Rule 17e–1(c) under the Act requires each Employee Fund to comply with the fund governance standards defined in rule 0–1(a)(7) under the Act (the ''Fund Governance Standards''). Applicants request an exemption from rule 17e–1 to the extent necessary to permit each Employee Fund to comply with paragraph (b) of the rule and without having to satisfy the Fund Governance Standards as required by paragraph (c) of the rule without the necessity of having a majority of the directors or managers of the Manager who are not interested persons take such actions and make such approvals as are set forth in rule 17e–1. Applicants state that because all the directors or managers of the Manager will be affiliated persons, without the relief requested, an Employee Fund could not comply with rule 17e–1. Applicants state that each Employee Fund will comply with rule 17e–1 by having a majority of the board of directors or managers of the Manager, or a committee of Bessemer employees to whom the Manager may delegate its functions (such as the trust committee of the Bessemer trust department or an advisory board established for the Employee Fund), take such actions and make such approvals as are set forth in rule 17e–1. Applicants state that each Employee Fund will comply with all other requirements of rule 17e–1.

10. Section 17(f) of the Act designates the entities that may act as investment company custodians, and rule 17f–1 under the Act imposes certain requirements when the custodian is a member of a national securities exchange. Applicants request an exemption from section 17(f) and rule 17f–1 to permit a Bessemer entity to act as custodian without a written contract. Applicants also request an exemption from the rule 17f–1(b)(4) requirement that an independent accountant periodically verify the assets held by the custodian. Applicants state that, given the community of interest of all the parties involved and the existing requirement for an independent annual audit, compliance with this requirement would be unnecessary. Each Employee Fund will otherwise comply with all the provisions of rule 17f–1.

11. Applicants also request an exemption from rule 17f–2 to permit the following exceptions from the requirements of rule 17f–2: (a) An Employee Fund's investments may be kept in the locked files of a Bessemer entity; (b) for purposes of paragraph (d) of the rule, (i) Employees of Bessemer will be deemed to be employees of the Employee Funds, (ii) officers or managers of the Manager of an Employee Fund will be deemed to be officers of the Employee Fund, and (iii) the Manager of an Employee Fund, its board of directors or managers, or a committee of Bessemer employees to whom the Manager may delegate its functions will be deemed to be the board of directors of such Employee Fund; and (c) in place of the verification procedure under paragraph (f) of the rule, verification will be effected quarterly by two employees of Bessemer. Applicants expect that many of the Employee Funds' investments will be evidenced only by partnership agreements, participation agreements or similar documents, rather than by negotiable certificates that could be misappropriated. Applicants believe that these instruments are most suitably kept in the files of a Bessemer entity, where they can be referred to as necessary.

12. Section 17(g) of the Act and rule 17g–1 under the Act generally require the bonding of officers and employees of a registered investment company who have access to its securities or funds. Rule 17g–1 requires that a majority of directors who are not interested persons take certain actions and give certain approvals relating to fidelity bonding. The rule also requires that the board of directors of any investment company relying on the rule satisfy the Fund Governance Standards. Applicants request relief to permit the Manager's board of directors or managers, who may be deemed interested persons, to take actions and make determinations as set forth in the rule. Applicants state that, because all the members of a board of managers or directors of a Manager will be affiliated persons, an Employee Fund could not comply with rule 17g–1 without the requested relief. Specifically, each Employee Fund will comply with rule 17g–1 by having a majority of the members of the board of directors or managers of the Manager, its board of directors or managers, or a committee of Bessemer employees to whom the Manager may delegate its functions take such actions and make such approvals as are set forth in rule 17g–1. Applicants also request an exemption from the requirements of paragraph (g) of rule 17g–1 relating to the filing of copies of fidelity bonds and related information with the Commission and the provision of notices to the board of directors, paragraph (h) of rule 17g–1 relating to the appointment of a person to make the filings and provide the notices required by paragraph (g), and paragraph (j)(3) of rule 17g–1 relating to compliance with the Fund Governance Standards. Applicants state that each Employee Fund will comply with all other requirements of rule 17g–1.

13. Section 17(j) of the Act and paragraph (b) of rule 17j–1 under the Act make it unlawful for certain enumerated persons to engage in fraudulent or deceptive practices in connection with the purchase or sale of a security held or to be acquired by a registered investment company. Rule 17j–1 also requires that every registered investment company adopt a written code of ethics and that every access person of a registered investment company report personal securities transactions. Applicants request an exemption from the provisions of rule 17j–1, except for the anti-fraud provisions of paragraph (b), because they are unnecessarily burdensome as applied to the Employee Funds.

14. Applicants request an exemption from the requirements in sections 30(a), 30(b), and 30(e) of the Act, and the rules under those sections, that registered investment companies prepare and file with the Commission and mail to their shareholders certain periodic reports and financial statements. Applicants contend that the forms prescribed by the Commission for periodic reports have little relevance to an Employee Fund and would entail administrative and legal costs that outweigh any benefit to the Participants in such Employee Fund. Applicants request exemptive relief to the extent necessary to permit each Employee Fund to report annually to the Participants in such Employee Fund. Applicants also request an exemption from section 30(h) of the Act to the extent necessary to exempt the Manager of each Employee Fund, members of the Manager, or any board of managers or directors or committee of Bessemer employees to whom the Manager may delegate its functions, and any other persons who may be deemed to be members of an advisory board of such Employee Fund from filing Forms 3, 4, and 5 under section 16(a) of the 1934 Act with respect to their ownership of Interests in such Employee Fund. Applicants assert that, because there will be no trading market and the transfers of Interests will be severely restricted, these filings are unnecessary for the protection of investors and burdensome to those required to make them.

15. Rule 38a–1 requires investment companies to adopt, implement and

periodically review written policies reasonably designed to prevent violation of the federal securities law and to appoint a chief compliance officer. Each Employee Fund will comply will rule 38a–1(a), (c) and (d), except that (a) Because the Employee Fund does not have a board of directors, the board of managers or directors of the Manager of each Employee Fund will fulfill the responsibilities assigned to the Employee Fund's board of directors under the rule, (b) since the board of managers or directors of the Manager does not have any disinterested members, approval by a majority of disinterested board members required by rule 38a–1 will not be obtained, and (c) because the board of managers or directors of the Manager does not have any independent members, the Employee Funds will comply with the requirement in rule 38a–1(a)(4)(iv) that the chief compliance officer meet with the independent board members by having the chief compliance officer meet with the board of managers or directors of the Manager as constituted.

**Applicants' Conditions**

Applicants agree that any order granting the requested relief will be subject to the following conditions:

1. Each proposed transaction otherwise prohibited by section 17(a) or section 17(d) and rule 17d–1 to which an Employee Fund is a party (the ''Section 17 Transactions'') will be effected only if the Manager determines that:

(a) The terms of the Section 17 Transaction, including the consideration to be paid or received, are fair and reasonable to the Members of such Employee Fund and do not involve overreaching of such Employee Fund or its Members on the part of any person concerned, and

(b) The Section 17 Transaction is consistent with the interests of the Members of such Employee Fund, such Employee Fund's organizational documents and such Employee Fund's reports to its Members.

In addition, the Manager of each Employee Fund will record and preserve a description of all Section 17 Transactions, the Manager's findings, the information or materials upon which the findings are based and the basis for the findings. All records relating to an investment program will be maintained until the termination of such investment program and for at least six years thereafter, and will be subject to examination by the Commission and its staff.[4]

2. In connection with the Section 17 Transactions, the Manager of each Employee Fund will adopt, and periodically review and update, procedures designed to ensure that reasonable inquiry is made, prior to the consummation of any Section 17 Transaction, with respect to the possible involvement in the transaction of any affiliated person or promoter of or principal underwriter for such Employee Fund, or any affiliated person of such a person, promoter or principal underwriter.

3. The Manager of each Employee Fund will not invest the funds of such Employee Fund in any investment in which a ''Co-Investor'' (as defined below) has acquired or proposes to acquire the same class of securities of the same issuer and where the investment transaction involves a joint enterprise or other joint arrangement within the meaning of rule 17d–1 in which such Employee Fund and the Co-Investor are participants unless any such Co-Investor agrees to, prior to disposing of all or part of its investment, (a) give such Manager sufficient, but not less than one day's, notice of its intent to dispose of its investment, and (b) refrain from disposing of its investment unless such Employee Fund has the opportunity to dispose of such Employee Fund's investment prior to or concurrently with, and on the same terms as, and *pro rata* with, the Co-Investor. The term ''Co-Investor'' with respect to any Employee Fund means any person who is: (a) An ''affiliated person'' (as such term is defined in section 2(a)(3) of the Act) of such Employee Fund (other than a Third Party Fund); (b) Bessemer; (c) an officer or director of Bessemer; or (d) an entity (other than a Third Party Fund) in which the Manager of such Employee Fund acts as a manager or has a similar capacity to control the sale or disposition of the entity's securities. The restrictions contained in this condition shall not be deemed to limit or prevent the disposition of an investment by a Co-Investor: (a) To its direct or indirect wholly-owned subsidiary, to any company (a ''parent'') of which such Co-Investor is a direct or indirect wholly-owned subsidiary, or to a direct or indirect wholly-owned subsidiary of its parent; (b) to immediate family members of such Co-Investor or a trust or other investment vehicle established for any such immediate family member; (c) when the investment is comprised of securities that are listed on any exchange registered as a national securities exchange under section 6 of the 1934 Act; (d) when the investment is comprised of securities that are NMS stocks pursuant to section 11A(a)(2) of the 1934 Act and rule 600(a) of Regulation NMS thereunder; (e) when the investment is comprised of securities that are listed on, or traded on, any foreign securities exchange or board of trade that satisfies regulatory requirements under the law of the jurisdiction in which such foreign securities exchange or board of trade is organized similar to those that apply to a national securities exchange or a national market system for securities; or (f) when the investment is comprised of securities that are government securities as defined in section 2(a)(16) of the Act or other securities that meet the definition of ''Eligible Security'' in rule 2a–7 under the Act.

4. Each Employee Fund and the Manager will maintain and preserve, for the life of such Employee Fund and for at least six years thereafter, such accounts, books, and other documents as constitute the record forming the basis for the audited financial statements that are to be provided to the Participants in such Employee Fund, and each annual report of such Employee Fund required to be sent to such Participants, and agree that all such records will be subject to examination by the Commission and its staff.[5]

5. The Manager of each Employee Fund will send to each Participant in such Employee Fund who had an interest in such Employee Fund, at any time during the fiscal year then ended, Employee Fund financial statements audited by such Employee Fund's independent accountants. At the end of each fiscal year, the Manager will make a valuation or have a valuation made of all of the assets of the Employee Fund as of such fiscal year end in a manner consistent with customary practice with respect to the valuation of assets of the kind held by the Employee Fund. In addition, within 90 days after the end of each fiscal year of each Employee Fund, or as soon as practicable after the end of each fiscal year of each Employee Fund, the Manager of such Employee Fund will send a report to each person who was a Participant in such Employee Fund at any time during the fiscal year

[4] Each Employee Fund will preserve the accounts, books and other documents required to be maintained in an easily accessible place for the first two years.

[5] Each Employee Fund will preserve the accounts, books and other documents required to be maintained in an easily accessible place for the first two years.

then ended, setting forth such tax information as shall be necessary for the preparation by the Participant of that Participant's federal and state income tax returns, and a report of the investment activities of the Employee Fund during that fiscal year.

6. If an Employee Fund makes purchases or sales from or to an entity affiliated with the Employee Fund by reason of an officer, director or employee of Bessemer (a) serving as an officer, director, general partner or investment adviser of the entity, or (b) having a 5% or more investment in the entity, such individual will not participate in the Employee Fund's determination of whether or not to effect the purchase or sale.

For the Commission, by the Division of Investment Management, under delegated authority.

**Florence E. Harmon,**

*Deputy Secretary.*

[FR Doc. E8–9910 Filed 5–5–08; 8:45 am]

BILLING CODE 8010–01–P

## SECURITIES AND EXCHANGE COMMISSION

### Sunshine Act Meeting

Notice is hereby given, pursuant to the provisions of the Government in the Sunshine Act, Public Law 94–409, that the Securities and Exchange Commission will hold a Closed Meeting on May 8, 2008 at 10 a.m.

Commissioners, Counsel to the Commissioners, the Secretary to the Commission, and recording secretaries will attend the Closed Meeting. Certain staff members who have an interest in the matters may also be present.

The General Counsel of the Commission, or his designee, has certified that, in his opinion, one or more of the exemptions set forth in 5 U.S.C. 552b(c)(3) (5), (7), (9)(B), and (10) and 17 CFR 200.402(a)(3), (5), (7), 9(ii) and (10), permit consideration of the scheduled matters at the Closed Meeting.

Commissioner Casey, as duty officer, voted to consider the items listed for the Closed Meeting in closed session.

The subject matter of the Closed Meeting scheduled for May 8, 2008 will be:

Formal orders of investigation;

Institution and settlement of injunctive actions;

Institution and settlement of administrative proceedings of an enforcement nature; and an opinion.

At times, changes in Commission priorities require alterations in the scheduling of meeting items.

For further information and to ascertain what, if any, matters have been added, deleted or postponed, please contact: the Office of the Secretary at (202) 551–5400.

Dated: May 1, 2008.

**Nancy M. Morris,**

*Secretary.*

[FR Doc. E8–10020 Filed 5–5–08; 8:45 am]

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## SECURITIES AND EXCHANGE COMMISSION

**[Release No. 34–57739; File No. SR–Amex–2008–17]**

### Self-Regulatory Organizations; American Stock Exchange LLC; Order Granting Approval of Proposed Rule Change, as Modified by Amendment No. 1 Thereto, to Adopt Listing Rules for Fixed Income-Linked Securities, Futures-Linked Securities, and Combination-Linked Securities

April 30, 2008.

### I. Introduction

On February 29, 2008, the American Stock Exchange LLC (''Amex'' or ''Exchange'') 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 generic listing standards for Fixed Income-Linked Securities, Futures-Linked Securities, and Combination-Linked Securities. On March 20, 2008, the Exchange filed Amendment No. 1 to the proposed rule change. The proposed rule change, as amended, was published for comment in the **Federal Register** on March 27, 2008.[3] The Commission received no comments on the proposal. This order approves the proposed rule change, as modified by Amendment No. 1 thereto.

### II. Description of the Proposal

The Exchange proposes to add new Sections 107G, 107H, and 107I of the Amex *Company Guide* to provide generic listing standards for Fixed Income-Linked Securities, Futures-Linked Securities, and Combination-Linked Securities (collectively, the ''New Linked Securities''). The primary purpose of the proposed rule change is to enable the listing and trading of the New Linked Securities pursuant to Rule 19b–4(e) [4] under the Act, without individual Commission approval of each such product pursuant to section 19(b)(2) of the Act.[5] The Exchange represents that within five business days after commencement of trading of a series of New Linked Securities under proposed Sections 107G, 107H, and 107I of the Amex Company Guide, as applicable, the Exchange will file a Form 19b–4(e).[6]

*General Issuer and Issue Eligibility*

As with Index-Linked Securities under current Section 107D of the Amex *Company Guide,*[7] Commodity-Linked Securities under Section 107E,[8] and Currency-Linked Securities under Section 107F of the Amex Company Guide,[9] the New Linked Securities do not give the holder any right to receive a portfolio component or any other ownership right or interest in the portfolio or underlying components comprising the applicable Reference Asset (as defined herein) and may or

[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

[3] *See* Securities Exchange Act Release No. 57539 (March 20, 2008), 73 FR 16395.

[4] Rule 19b–4(e) provides that the listing and trading of a new derivative securities product by a self-regulatory organization (''SRO'') shall not be deemed a proposed rule change, pursuant to section (c)(1) of Rule 19b–4 (17 CFR 240.19b–4(c)(1)), if the Commission has approved, pursuant to section 19(b) of the Act (15 U.S.C. 78s(b)), the SRO's trading rules, procedures, and listing standards for the product class that would include the new derivatives securities product, and the SRO has a surveillance program for the product class. *See* 17 CFR 240.19b–4(e).

[5] 15 U.S.C. 78s(b)(2). The Exchange also seeks to make a technical change to Section 107D of the Amex *Company Guide* as part of the proposal. *See infra* note 7.

[6] 17 CFR 240.19b–4(e)(2)(ii); 17 CFR 249.820.

[7] Index-Linked Securities are securities that provide for the payment at maturity of a cash amount based on the performance of an underlying index or indexes. As part of this proposed rule change, the Exchange seeks to make a technical change to Section 107D of the Amex *Company Guide* to define such underlying index or indexes as the ''Equity Reference Asset.'' Such securities may or may not provide for the repayment of the original principal investment amount. *See* Section 107D and Section 107D(d) of the Amex *Company Guide.*

[8] Commodity-Linked Securities are securities that provide for the payment at maturity of a cash amount based on the performance of one or more commodities, commodity futures, options or other commodity derivatives or Commodity-Based Trust Shares (as defined in Amex rule 1200A), or a basket or index of any of the foregoing (the ''Commodity Reference Asset''). Such securities may or may not provide for the repayment of the original principal investment amount. *See* Section 107E of the Amex *Company Guide.*

[9] Currency-Linked Securities are securities that provide for the payment at maturity of a cash amount based on the performance of one or more currencies, or options or currency futures or other currency derivatives or Currency Trust Shares (as defined in Amex Rule 1200B), or a basket or index of any of the foregoing (the ''Currency Reference Asset''). Such securities may or may not provide for the repayment of the original principal investment amount. *See* Section 107F of the Amex *Company Guide.*

may not provide for the repayment of the original principal investment amount. Likewise, the general standards set forth in Section 107D(a)–(f), Section 107E(a)–(f), and Section 107F(a)–(f) of the Amex Company Guide will similarly apply to the New Linked Securities.[10] Specifically, the Exchange will apply the following requirements to all issuers of New Linked Securities:

- The issuer will be expected to have a minimum tangible net worth of $250,000,000 and to otherwise exceed certain earnings requirements. In the alternative, the issuer will be expected: (1) To have a minimum tangible net worth of $150,000,000; and (2) not to have issued index-linked note offerings (including the New Linked Securities), the original issue price of which, combined with all the issuer's other index-linked note offerings listed on a national securities exchange, exceeds 25% of the issuer's tangible net worth at the time of issuance.
- The issuer must be in compliance with Rule 10A–3 under the Act.[11]

*In addition, the Exchange will apply the following requirements to each issue of New Linked Securities:*

- The issue must have a minimum public distribution of at least 1,000,000 trading units with a minimum of 400 public shareholders. This minimum public distribution and minimum public shareholders requirements will not be applicable to an issue traded in thousand dollar denominations or if the securities are redeemable at the option of the holders thereof on at least a weekly basis.
- The issue must have a principal amount/aggregate market value of not less than $4 million.
- The issue must have a term of at least one year, but not greater than 30 years.
- The issue must be the nonconvertible debt of the issuer.
- The payment at maturity may or may not provide for a multiple of the direct or inverse performance of the underlying Reference Asset; however, in no event will a loss or negative payment at maturity be accelerated by a multiple that exceeds twice the performance of the underlying Reference Asset.

*Fixed Income-Linked Securities*

Fixed Income-Linked Securities will be subject to the criteria proposed in new Section 107G of the Amex *Company Guide* for initial and continued listing. Fixed Income-Linked Securities are securities that provide for the payment at maturity of a cash amount based on the performance of one or more indexes or portfolios of debt securities that are notes, bonds, debentures or evidence of indebtedness that include, but are not limited to, U.S. Department of Treasury securities (''Treasury Securities''), government-sponsored entity securities (''GSE Securities''), municipal securities, trust preferred securities, supranational debt and debt of a foreign country or subdivision thereof, or a basket or index of any of the foregoing (collectively, ''Fixed Income Reference Asset'').

*For the initial listing of Fixed Income-Linked Securities, the Fixed Income Reference Asset must either:* (1) Have been approved for the trading of options or other derivatives by the Commission under Section 19(b)(2) of the Act and the rules thereunder, and the conditions set forth in the Commission's approval order, including comprehensive surveillance sharing agreements, continue to be satisfied; or (2) meet the following requirements:[12]

- Components of the Fixed Income Reference Asset that, in the aggregate, account for at least 75% of the weight of the Fixed Income Reference Asset must each have a minimum original principal amount outstanding of $100 million or more;
- A component of the Fixed Income Reference Asset may be a convertible security; however, once the convertible security component converts to the underlying equity security, the component is removed from the Fixed Income Reference Asset;
- No component of the Fixed Income Reference Asset (excluding Treasury Securities and GSE Securities) may represent more than 30% of the weight of the Fixed Income Reference Asset, and the five highest weighted components in the Fixed Income Reference Asset may not, in the aggregate, account for more than 65% of the weight of the Fixed Income Reference Asset;
- An underlying Fixed Income Reference Asset (excluding one consisting entirely of exempted securities)[13] must include a minimum of 13 non-affiliated issuers;
- *Component securities that, in the aggregate, account for at least 90% of the weight of the Fixed Income Reference Asset must be one of the following:* (1) From issuers that are required to file reports pursuant to Sections 13 and 15(d) of the Act;[14] (2) from issuers that have a worldwide market value of their outstanding common equity held by non-affiliates of $700 million or more; (3) from issuers that have outstanding securities that are notes, bonds, debentures, or evidence of indebtedness having a total remaining principal amount of at least $1 billion; (4) exempted securities as defined in Section 3(a)(12) of the Act;[15] or (5) from issuers that are a government of a foreign country or a political subdivision of a foreign country; and
- The Fixed Income Reference Asset must be widely disseminated to the public by one or more major market vendors at least once per trading day.

*The Exchange will commence delisting or removal proceedings:*[16]

- If any of the initial listing criteria for Fixed Income-Linked Securities are not continuously maintained;
- If the aggregate market value or the principal amount of the Fixed Income Index-Linked Securities publicly held is less than $400,000;
- The value of the Fixed Income Reference Asset is no longer calculated or available, and a new Fixed Income Reference is substituted, unless the new Fixed Income Reference Asset meets the requirements of proposed Section 107G of the *Company Guide*; or
- If such other event shall occur or condition exists that, in the opinion of the Exchange, makes further dealings on the Exchange inadvisable.

*Futures-Linked Securities*

Futures-Linked Securities will be subject to the criteria in proposed

[10] *See* Section 107A of the Amex *Company Guide* (setting forth the ''General Criteria'' relating to minimum issuer eligibility requirements based on assets, earnings, and stockholders' equity, and minimum issue requirements based on public distribution, public shareholders, and principal amount/aggregate market value).

[11] *See* 17 CFR 240.10A–3.

[12] The Exchange notes that the quantitative criteria for Fixed Income Reference Assets are substantially similar to those set forth under Commentary .04 to Amex Rule 1000–AEMI and Commentary .03 to Amex Rule 1000A–AEMI, relating to Portfolio Depositary Receipts and Index Fund Shares, respectively, based on a fixed income index or portfolio. *See* Securities Exchange Act Release No. 55437 (March 9, 2007), 72 FR 12233 (March 15, 2007) (SR–Amex–2006–118) (approving the adoption of ''fixed income'' and ''combination'' generic listing standards for exchange-traded funds).

[13] ''Exempted securities'' is defined in Section 3(a)(12) of the Act (15 U.S.C. 78c(a)(12)). The Exchange notes that, for purposes of a Fixed Income Reference Asset, an ''exempted security'' may include Treasury Securities, municipal securities and/or GSE Securities.

[14] *See* 15 U.S.C. 78m; 15 U.S.C. 78o(d).

[15] *See* 15 U.S.C. 78c(a)(12).

[16] The Exchange notes that the proposed continued listing standards for each of Fixed Income-Linked Securities, Futures-Linked Securities, and Combination-Linked Securities are substantially similar to those standards under Sections 107D, 107E, and 107F currently applicable to Index-Linked Securities, Commodity-Linked Securities, and Currency-Linked Securities, respectively. *See* Sections 107D, 107E, and 107F of the Amex *Company Guide*.

Section 107H of the Amex *Company Guide* for initial and continued listing. Futures-Linked Securities are securities that provide for the payment at maturity of a cash amount based on the performance of one or more indexes or portfolios of: (1) Futures on Treasury Securities, GSE Securities, supranational debt and debt of a foreign country or a subdivision thereof, or options or other derivatives on any of the foregoing; or (2) interest rate futures or options or derivatives on the foregoing (collectively, ''Futures Reference Asset'').

*The issue must meet one of the initial listing standards set forth below:*

- The Futures Reference Asset must have been reviewed and approved for the trading of Futures Securities or options or other derivatives by the Commission under Section 19(b)(2) of the Act and rules thereunder, and the conditions set forth in the Commission's approval order, including with respect to comprehensive surveillance sharing agreements, continue to be satisfied; or
- The pricing information for components of a Futures Reference Asset must be derived from a market which is an Intermarket Surveillance Group (''ISG'') member or affiliate member or with which the Exchange has a comprehensive surveillance sharing agreement. A Futures Reference Asset may include components representing not more than 10% of the dollar weight of such Futures Reference Asset for which the pricing information is derived from markets that do not meet the specified requirements; provided, however, that no single component subject to this exception exceeds 7% of the dollar weight of the Futures Reference Asset.

*In addition, the issue must meet both of the following initial listing criteria:* (1) The value of the Futures Reference Asset must be calculated and widely disseminated by one or more major market data vendors on at least a 15-second basis during trading on the Exchange; and (2) in the case of Futures-Linked Securities that are periodically redeemable, the indicative value of the subject Futures-Linked Securities must be calculated and widely disseminated by one or more major market data vendors on at least a 15-second basis during trading on the Exchange.

*The Exchange will commence delisting or removal proceedings:*

- If any of the initial listing criteria for Futures-Linked Securities are not continuously maintained;
- If the aggregate market value or the principal amount of the Futures-Linked Securities publicly held is less than $400,000;
- The value of the Futures Reference Asset is no longer calculated or available, and a new Futures Reference Asset is substituted, unless the new Futures Reference Asset meets the requirements of proposed Section 107H of the Amex *Company Guide*; or
- If such other event shall occur or condition exists that, in the opinion of the Exchange, makes further dealings on the Exchange inadvisable.

*Combination-Linked Securities*

Combination-Linked Securities will be subject to the criteria in proposed Section 107I of the Amex *Company Guide* for initial and continued listing. Combination-Linked Securities are securities that provide for the payment at maturity of a cash amount based on the performance of any combination of two or more Equity Reference Assets, Commodity Reference Assets, Currency Reference Assets, Fixed Income Reference Assets, or Futures Reference Assets (collectively, ''Combination Reference Asset,'' and together with Equity Reference Assets, Commodity Reference Assets, Currency Reference Assets, Fixed Income Reference Assets, and Futures Reference Assets, collectively, ''Reference Assets''). In addition, a Combination Reference Asset may include as a component a notional investment in cash or a cash equivalent based on a widely accepted overnight loan interest rate, London Interbank Offered Rate (''LIBOR''), Prime Rate, or an implied interest rate based on observed market spot and foreign currency forward rates. The Exchange states that, for purposes of a notional investment as a component of a Multifactor Reference Asset, a long LIBOR weighting would represent a leverage charge offsetting long positions in the underlying Reference Assets.

*For the initial listing of a series of Combination-Linked Securities, each component of the Combination Reference Asset must:* (1) Have been reviewed and approved for the trading of options or other derivatives by the Commission under Section 19(b)(2) of the Act and rules thereunder, and the conditions set forth in the Commission's approval order, including with respect to comprehensive surveillance sharing agreements, continued to be satisfied; or (2) meet the following requirements:

- Each Reference Asset included in the Combination Reference Asset must meet the applicable initial and continued listing criteria set forth in Sections 107D, 107E, 107F, 107G and/or 107H of the Amex *Company Guide*;
- The value of the Combination Reference Asset must be calculated and widely disseminated to the public on at least a 15-second basis during the time the Combination-Linked Securities trade on the Exchange; and
- In the case of Combination-Linked Securities that are periodically redeemable, the indicative value of the Combination-Linked Securities must be calculated and widely disseminated by one or more major market data vendors on at least a 15-second basis during the time the Combination-Linked Securities trade on the Exchange.

*The Exchange will commence delisting or removal proceedings:*

- If any of the initial listing criteria for Combination-Linked Securities are not continuously maintained;
- If the aggregate market value or the principal amount of the Combination-Linked Securities publicly held is less than $400,000;
- The value of the Combination Reference Asset is no longer calculated or available, and a new Combination Reference is substituted, unless the new Combination Reference Asset meets the requirements of Section 107I of the Amex *Company Guide*; or
- If such other event shall occur or condition exists that, in the opinion of the Exchange, makes further dealings on the Exchange inadvisable.

*Applicable Exchange Rules*

The New Linked Securities traded on the Exchange's equity trading floor will be subject to all Exchange rules governing the trading of equity securities. The Exchange's equity margin rules and the Exchange's regular trading hours (9:30 a.m. to 4 p.m. Eastern Time) will apply to transactions in the New Linked Securities. New Linked Securities listed and traded as bond or debt securities will be subject to the rules applicable to bond or debt securities, however, those New Linked Securities redeemable at the option of the holders thereof on at least a weekly basis will be subject to the trading rules applicable to exchange-traded funds.[17]

*Information Circular*

Upon evaluating the nature and complexity of each New Linked Security, the Exchange represents that it will prepare and distribute, if appropriate, an Information Circular to member organizations describing the products. Accordingly, the particular structure and corresponding risks of a New Linked Security will be highlighted and disclosed. The Information Circular will disclose whether the New Linked Security will trade as equity or debt, subject to

[17] *See* proposed Sections 107G(k), 107H(k), and 107I(k) of the Amex *Company Guide*.

appropriate trading rules including, among others, rules governing priority, parity and precedence of orders, specialist responsibilities, account opening, and margin.

*The Information Circular will also detail the Exchange's suitability rule that requires a member organization recommending a transaction in these Securities:* (1) To determine that such transaction is suitable for the customer (Amex Rule 411); and (2) to have a reasonable basis for believing that the customer can evaluate the special characteristics, and is able to bear the financial risks, of such transaction. In addition, the Information Circular will reference the requirement that Amex member organizations must deliver a prospectus to investors purchasing newly issued New Linked Securities prior to or concurrently with the confirmation of a transaction.

*Surveillance*

The Exchange states that it will closely monitor activity in the New Linked Securities to identify and deter any potential improper trading activity. Additionally, the Exchange represents that its surveillance procedures are adequate to properly monitor the trading of the New Linked Securities. Specifically, the Exchange will rely on its existing surveillance procedures governing equities, options, and exchange-traded funds.[18] The Exchange has developed procedures to closely monitor activity in the New Linked Securities and the underlying indexes and/or portfolios to identify and deter potential improper trading activity. To the extent applicable, the Exchange will be able to obtain trading and beneficial holder information from the primary trading markets for the portfolio components in relation to the New Linked Securities, either pursuant to bilateral information sharing agreements with those markets or because those markets are SRO members or affiliate members of ISG.

*Firewall Procedures*

If an underlying index is maintained by a broker-dealer, the broker-dealer is required to erect a ''firewall'' around the personnel responsible for the maintenance of such underlying index or who have access to information concerning changes and adjustments to the underlying index, and the underlying index must be calculated by a third party who is not a broker-dealer. Any advisory committee, supervisory board, or similar entity that advises an index license provider or that makes decisions regarding the underlying index or portfolio composition, methodology, and related matters must implement and maintain, or be subject to, procedures designed to prevent the use and dissemination of material, non-public information regarding the applicable underlying index or portfolio.[19] The Exchange further proposes to apply Amex Rules 1203A and 1203B [20] and 1204A and 1204B [21] to Futures-Linked Securities and Combination-Linked Securities, to the extent such Combination-Linked Securities are comprised in part of Futures, Commodity, or Currency Reference Assets.

*Trading Halts*

If the indicative value or the Reference Asset value applicable to a series of New Linked Securities is not being disseminated as required, the Exchange may halt trading during the day on which such interruption first occurs. If such interruption persists past the trading day in which it occurred, the Exchange will halt trading no later than the beginning of the trading day following the interruption.[22]

## III. Discussion and Commission's Findings

After careful consideration, the Commission finds that the proposed rule change is consistent with the requirements of the Act and the rules and regulations thereunder applicable to a national securities exchange.[23] In particular, the Commission finds that the proposed rule change is consistent with the requirements of Section 6(b)(5) of the Act,[24] which requires, among other things, that the Exchange's rules be designed 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.

*A. Generic Listing Standards for the New Linked Securities*

To list and trade the New Linked Securities, the Exchange currently must file a proposed rule change with the Commission pursuant to Section 19(b)(1) of the Act [25] and Rule 19b–4 thereunder.[26] However, Rule 19b–4(e) provides that the listing and trading of a new derivative securities product by an SRO will not be deemed a proposed rule change pursuant to Rule 19b–4(c)(1) if the Commission has approved, pursuant to Section 19(b) of the Act, the SRO's trading rules, procedures, and listing standards for the product class that would include the new derivative securities product, and the SRO has a surveillance program for the product class.

The Commission notes that it has previously approved substantively identical generic listing standards applicable to the same types of securities as proposed by Amex for another exchange.[27] With respect to Fixed Income-Linked Securities, in particular, the Commission has approved generic listing standards pursuant to Rule 19b–4(e) for Portfolio Depositary Receipts and Index Fund Shares based on the performance of fixed income securities that are substantially similar to those proposed to be applicable to Fixed Income-Linked

[18] *See* proposed Sections 107G(j), 107H(j), and 107I(j) of the Amex *Company Guide*.

[19] *See* proposed Sections 107G(i), 107H(i), and 107I(i) of the Amex *Company Guide*.

[20] Amex Rules 1203A and 1203B restrict the ability of the specialist firm for any issue of Commodity-Based Trust Shares and Currency Trust Shares or its affiliates to make markets in and trade the Commodity Reference Asset and/or Currency Reference Asset components, the commodities or currencies underlying the Commodity Reference Asset or Currency Reference Asset components, or options, futures, or options on futures on the Commodity Reference Asset or Currency Reference Asset, or any other derivatives based on the Commodity Reference Asset or Currency Reference Asset, any Commodity Reference Asset or Currency Reference Asset component, or any physical commodity or commodities underlying a Commodity Reference Asset component or any currency or currencies underlying a Currency Reference Asset component. *See* Amex Rules 1203A and 1203B. The Exchange maintains that these rules would similarly apply to the trading of the New Linked Securities to the extent such New Linked Securities are comprised in part of a Futures, Commodity, or Currency Reference Asset.

[21] Amex Rules 1204A and 1204B provide that specialists handling Commodity-Based Trust Shares and Currency Trust Shares provide the Exchange with all necessary information relating to their trading in underlying physical assets, commodities or currencies, related futures or options on futures, or any other related derivatives. *See* Amex Rules 1204A and 1204B. The Exchange maintains that these rules would similarly apply to the trading of New Linked Securities to the extent such New Linked Securities are comprised in part of a Futures, Commodity, or Currency Reference Asset.

[22] *See* proposed Sections 107G(h)(3), 107H(h)(3), and 107I(h)(3) of the Amex *Company Guide*.

[23] In approving this proposed rule change, the Commission notes that it has considered the proposed rule's impact on efficiency, competition, and capital formation. *See* 15 U.S.C. 78c(f).

[24] 15 U.S.C. 78f(b)(5).

[25] 15 U.S.C. 78s(b)(1).

[26] 17 CFR 240.19b–4.

[27] *See* Securities Exchange Act Release No. 57701 (April 23, 2008) (SR–NYSEArca–2008–20) (approving generic listing standards for Fixed Income Index-Linked Securities, Futures-Linked Securities, and Multifactor Index-Linked Securities).

Securities.[28] With respect to the proposed generic listing standards for Combination-Linked Securities, the Commission has previously approved generic listing standards pursuant to Rule 19b–4(e) for Portfolio Depositary Receipts and Index Fund Shares based on the performance of a combination of assets.[29] The Commission also notes that the proposed generic standards applicable to Futures-Linked Securities are substantively identical to those currently applicable to Commodity-Linked Securities with respect to the pricing information for the respective underlying assets.[30] Lastly, the Commission notes that the proposed continued listing standards for each of the New Linked Securities are substantively identical to those existing standards applicable to Index-Linked Securities, Commodity-Linked Securities, and Currency-Linked Securities.[31]

In approving the New Linked Securities for Exchange trading, the Commission considered applicable Exchange rules that govern their trading. The Commission believes that generic listing standards for the New Linked Securities should fulfill the intended objective of Rule 19b–4(e) and allow securities that satisfy the proposed generic listing standards to commence trading without the need for public comment and Commission approval.[32] The Exchange's ability to rely on Rule 19b–4(e) to list and trade the New Linked Securities that meet the applicable requirements and minimum standards should reduce the time frame for bringing these securities to market and thereby reduce the burdens on issuers and other market participants, while also promoting competition and making such securities available to investors more quickly.

*B. Listing and Trading the New Linked Securities*

Taken together, the Commission finds that the proposal contains adequate rules and procedures to govern the listing and trading of the New Linked Securities pursuant to Rule 19b–4(e) on the Exchange. Products listed and traded under the proposed generic standards will be subject to the full panoply of Amex rules and procedures that currently govern the trading of equity securities on the Exchange.

The general listing requirements under Section 107D(a)–(f), Section 107E(a)–(f), and Section 107F(a)–(f) of the Amex *Company Guide*, applicable to Index-Linked Securities, Commodity-Linked Securities, and Currency-Linked Securities, respectively, will similarly apply to the New Linked Securities under the proposed rule change.[33] With respect to Fixed Income-Linked Securities, the definition of Fixed Income Reference Asset includes the same types of fixed income securities that may underlie Portfolio Depositary Receipts under Commentary .04 to Amex Rule 1000–AEMI and Index Fund Shares under Commentary .03 to Amex Rule 1000A–AEMI.[34] In addition, the Exchange's proposed eligibility criteria for Fixed Income Reference Assets, which are substantively identical to the criteria applicable to fixed income-based Portfolio Depositary Receipts and Index Fund Shares, include, among other things, minimum standards relating to original principal amount outstanding for each component of the Fixed Income Reference Asset, maximum concentration limits for each such component, and minimum number of non-affiliated issuers of such components.[35] The Commission believes that these requirements should help to ensure that the underlying components of a Fixed Income Reference Asset are adequately capitalized, sufficiently liquid, and diversified. In addition, the Fixed Income Reference Asset must be widely disseminated to the public by one or more major market vendors at least once per business day during the time the Fixed Income-Linked Securities trade on the Exchange.

In the case of Futures-Linked Securities, the underlying asset must either be an index of (1) futures on Treasury Securities, GSE Securities, supranational debt and debt of a foreign country or a subdivision thereof, or options or other derivatives on any of the foregoing, or (2) interest rate futures, or options on, or derivatives of, such interest rate futures. In addition, as with Commodity Reference Assets, Futures Reference Assets to which Futures-Linked Securities are linked must either have been reviewed and approved for trading by the Commission or the pricing information of their underlying components must be derived from certain required sources, subject to exceptions.[36] These requirements should help to ensure that the components comprising a Futures Reference Asset are adequately transparent and subject to rules and standards of applicable exchanges that trade such components and that the Exchange is able to obtain information with respect to disruptions in, or unusual trading of, such components.[37] To enhance the transparency of such Futures-Linked Securities, the proposal also would require (1) the value of the Futures Reference Asset to be calculated and widely disseminated by one or more major market data vendors on at least a 15-second basis during the time the Futures-Linked Securities trade on the Exchange, and (2) in the case of Futures-Linked Securities that are periodically redeemable, the indicative value of such securities to be calculated and widely disseminated by the Exchange or one or more major market data vendors on at least a 15-second basis during the time the Futures-Linked Securities trade on the Exchange.

In the case of Combination-Linked Securities, the Combination Reference Asset may be comprised of any combination of two or more Reference Assets and a notional investment in cash or a cash equivalent based on a widely accepted overnight loan interest rate, LIBOR, Prime Rate, or an implied interest rate based on observed market spot and foreign currency forward rates. As stated earlier, the Commission notes that the proposed generic standards applicable to Combination-Linked Securities are substantially similar to those standards applicable to Portfolio Depositary Receipts and Index Fund Shares that are based on a combination of equity and fixed income securities in that each underlying Reference Asset must satisfy its own applicable minimum criteria and standards for the listing and trading of a series of

[28] *See* Commentary .04 to Amex Rule 1000–AEMI and Commentary .03 to Amex Rule 1000A–AEMI (setting forth the generic listing and trading standards for Portfolio Depositary Receipts and Index Fund Shares based on an index or portfolio comprised of fixed income securities, respectively); *see supra* note 12 and accompanying text.

[29] *See* Commentary .05 to Amex Rule 1000–AEMI and Commentary .04 to Amex Rule 1000A–AEMI (setting forth the generic listing and trading standards for Portfolio Depositary Receipts and Index Fund Shares, respectively, based on a combination of assets representing equity and fixed income securities and requiring that each index or portfolio of equity or fixed income component securities separately satisfy its own applicable generic criteria for listing and trading pursuant to Rule 19b–4(e)).

[30] *See* Section 107E of the Amex *Company Guide; see also infra* note 42 and accompanying text.

[31] *See supra* note 16.

[32] The Commission notes that the failure of a particular product or index to comply with the proposed generic listing standards under Rule 19b–4(e), however, would not preclude the Exchange from submitting a separate filing pursuant to Section 19(b)(2) of the Act, requesting Commission approval to list and trade a particular series of the New Linked Securities.

[33] *See supra* note 10 and accompanying text.

[34] *Compare* proposed Sections 107G, 107H, and 107I of the Amex *Company Guide* with Commentary .04 to Amex Rule 1000–AEMI and Commentary .03 to Amex Rule 1000A–AEMI.

[35] *See supra* note 12.

[36] *See infra* note 42 and accompanying text.

[37] *See id.*

Combination-Linked Securities.[38] In addition, under the proposed rule change, (1) the value of the Combination Reference Asset must be calculated and widely disseminated on at least a 15-second basis during the time such securities trade on the Exchange, and (2) in the case of Combination-Linked Securities that are periodically redeemable, the indicative value must be calculated and widely disseminated on at least a 15-second basis during the time such securities trade on the Exchange.

The Exchange has also developed continued listing criteria that would require it to commence delisting or removal proceedings in circumstances that make further dealings in the New Linked Securities inadvisable.[39] The Commission notes that such standards are substantively identical to those continued listing standards currently applicable to Index-Linked Securities, Commodity-Linked Securities, and Currency-Linked Securities,[40] and the Commission believes that such delisting criteria should help ensure the maintenance of fair and orderly markets for the New Linked Securities. The Commission further notes that, under the proposal, if the indicative value or Reference Asset value applicable to a series of the New Linked Securities is not disseminated as required, the Exchange may halt trading of such New Linked Securities during the day on which the interruption first occurs; however, if the interruption persists past the trading day on which it occurred, the Exchange will halt trading no later than the beginning of the trading day following the interruption. Such provisions relating to trading halts currently apply to Index-Linked Securities, Commodity-Linked Securities, and Currency-Linked Securities, and the Commission believes that the trading halt requirements should promote the availability of key information relating to the New Linked Securities for the benefit investors and other market participants.[41]

*C. Surveillance*

The Commission notes that the New Linked Securities would be subject to the Exchange's existing surveillance procedures applicable to equities, options, and exchange-traded funds. The Exchange has represented that its surveillance procedures are adequate to properly monitor the trading of the New Linked Securities listed pursuant to these proposed generic listing standards and stated that it has developed such procedures to closely monitor activity in the New Linked Securities and their respective underlying indexes and/or portfolios to identify and deter any potential improper trading activity. In addition, the Commission notes that, with respect to the proposed New Linked Securities, the Exchange has represented that it will be able to obtain trading and beneficial holder information from the primary trading markets either pursuant to bilateral information sharing agreements with those markets or because those markets are SRO members or affiliate members of ISG. The Commission further notes that, for Futures-Linked Securities, the pricing information for components of a Futures Reference Asset must be derived from a market that is an ISG member or affiliate member or with which the Exchange has a comprehensive surveillance sharing agreement, subject to certain exceptions.[42]

*D. Information Circular*

The Exchange has represented that it will prepare and distribute, if appropriate, an Information Circular to member organizations describing the New Linked Securities. Accordingly, the particular structure and corresponding risks of a New Linked Security will be highlighted and disclosed. The Information Circular will disclose whether the New Linked Security will trade as equity or debt, subject to appropriate trading rules including, among others, rules governing priority, parity and precedence of orders, specialist responsibilities, account opening, and margin. The Information Circular will also detail the Exchange's suitability rule and reference the requirement that Amex member organizations must deliver a prospectus to investors purchasing newly issued New Linked Securities prior to or concurrently with the confirmation of a transaction.

*E. Firewall Procedures*

With respect to a series of New Linked Securities, if an underlying index is maintained by a broker-dealer, the broker-dealer is required to erect a ''firewall'' around the personnel responsible for the maintenance of such underlying index or who have access to information concerning changes and adjustments to the underlying index, and the underlying index must be calculated by a third party who is not a broker-dealer. Any advisory committee, supervisory board, or similar entity that advises an index license provider or that makes decisions regarding the underlying index or portfolio composition, methodology, and related matters must implement and maintain, or be subject to, procedures designed to prevent the use and dissemination of material, non-public information regarding the applicable underlying index or portfolio.[43] The Exchange further proposes to apply Amex Rules 1203A and 1203B[44] and 1204A and 1204B[45] to Futures-Linked Securities and Combination-Linked Securities, to the extent such Combination-Linked Securities are comprised in part of Futures, Commodity, or Currency Reference Assets.

## IV. Conclusion

*It is therefore ordered*, pursuant to Section 19(b)(2) of the Act,[46] that the proposed rule change (SR–Amex–2008–17), as modified by Amendment No. 1 thereto, be, and it hereby is, approved.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[47]

**Florence E. Harmon,**

*Deputy Secretary.*

[FR Doc. E8–9892 Filed 5–5–08; 8:45 am]

**BILLING CODE 8010–01–P**

[38] *See supra* note 28.

[39] *See* proposed Sections 107G(h), 107H(h), and 107I(h) of the Amex *Company Guide* (providing that the Exchange will commence delisting or removal proceedings for any series of Fixed Income-Linked Securities, Futures-linked Securities, and Combination-Linked Securities, respectively, if: (a) *Any* of the applicable initial listing criteria are not continuously maintained; (b) the aggregate market value or the principal amount of the applicable security publicly held is less than $400,000; (c) the value of the applicable Reference Asset is no longer calculated or available and a new Reference Asset is substituted, unless such new Reference Asset meets the requirements under Sections 107G, 107H, or 107I, as applicable; and (d) such other event shall occur or condition exists that, in the opinion of the Exchange, makes further dealings inadvisable).

[40] *See supra* note 16.

[41] *Compare* Sections 107D(h)(4), 107E(h)(4), and 107F(h)(4) of the Amex *Company Guide with* proposed Sections 107G(h)(3), 107H(h)(3), and 107I(h)(3) of the Amex *Company Guide.*

[42] *See* proposed Section 107H(g)(ii) of the Amex *Company Guide* (providing that the Futures Reference Asset may not include components representing more than 10% of the dollar weight of such Futures Reference Asset for which the pricing information is derived from markets that are neither ISG members or parties to a comprehensive surveillance sharing agreement with the Exchange and that no such single component may exceed 7% of the dollar weight of the Futures Reference Asset).

[43] *See supra* note 19.

[44] *See supra* note 20.

[45] *See supra* note 21.

[46] 15 U.S.C. 78s(b)(2).

[47] 17 CFR 200.30–3(a)(12).

## SECURITIES AND EXCHANGE COMMISSION

**[Release No. 34–57742; File No. SR–CBOE–2008–50]**

## Self-Regulatory Organizations; Chicago Board Options Exchange, Incorporated; Notice of Filing and Immediate Effectiveness of Proposed Rule Change Related to DPMs and LMMs

April 30, 2008.

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 April 25, 2008, the Chicago Board Options Exchange, Incorporated (''Exchange'' or ''CBOE'') filed with the Securities and Exchange Commission (''Commission'') the proposed rule change as described in Items I and II below, which Items have been substantially prepared by the Exchange. The Exchange filed the proposal as a ''non-controversial'' proposed rule change pursuant to section 19(b)(3)(A)(iii) of the Act[3] and Rule 19b–4(f)(6) thereunder.[4] 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 proposes to amend CBOE rules relating to Designated Primary Market-Makers (''DPMs'') and Lead Market-Makers (''LMMs''). The text of the proposed rule change is available on the Exchange's Web site (*http://www.cboe.org/Legal*), at the Exchange's Office of the Secretary and at the Commission.

### 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 those 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 parts of such statements.

*A. Self-Regulatory Organization's Statement of the Purpose of, and the Statutory Basis for, the Proposed Rule Change*

1. Purpose

CBOE is proposing to amend Rules 8.3—*Appointment of Market-Makers,* 8.85—*DPM Obligations,* and 8.91—*Limitations on Dealings of DPMs and Affiliated Persons of DPMs,* to permit Market-Maker(s) affiliated with a DPM to hold an appointment and submit electronic quotations in the same class provided CBOE uses an allocation algorithm in the class that does not allocate electronic trades, in whole or in part, in an equal percentage based on the number of market participants quoting at the best bid or offer. Similarly, CBOE is proposing to amend Rules 8.3 and 8.15A—*Lead Market-Makers in Hybrid Classes,* to make it clear that it is permissible for Market-Maker(s) affiliated with an LMM to hold an appointment and submit electronic quotations in the same class provided CBOE uses an allocation algorithm in the class that does not allocate electronic trades, in whole or in part, in an equal percentage based on the number of market participants quoting at the best bid or offer.[5] These changes are the same as and consistent with CBOE rules that already permit affiliated Market-Makers as well as Market-Maker(s) affiliated with an Electronic DPM (''e-DPM'') to hold appointments and submit electronic quotes in the same class under the same conditions.[6] CBOE believes this rule change will provide more flexibility for DPMs and their Market-Maker affiliates, as well as for LMMs and their Market-Maker affiliates, commensurate with what is already available for other Market-Maker participants. Accordingly, CBOE believes that the proposed rule change is designed to promote just and equitable principles of trade.

2. Statutory Basis

The Exchange believes the proposed rule change is consistent with the Act and the rules and regulations under the Act applicable to a national securities exchange and, in particular, the requirements of section 6(b) of the Act.[7] Specifically, the Exchange believes the proposed rule change is consistent with the section 6(b)(5) Act[8] requirements that the rules of an exchange be designed to promote just and equitable principles of trade, to prevent fraudulent and manipulative acts and, in general, to protect investors and the public interest. In particular, CBOE believes this rule change will provide more flexibility for DPMs and their Market-Maker affiliates, as well as LMMs and their Market-Maker affiliates, commensurate with what is already available for other Market-Maker participants. It also places these various types of market participants (DPM, LMM, e-DPM) on equal footing as it relates to allowing Market-Makers affiliated with those market participants to hold appointments and submit electronic quotes in the same option classes under the same conditions.

*B. Self-Regulatory Organization's Statement on Burden on Competition*

CBOE 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.

*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 proposal.

### III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action

Because the foregoing rule 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 from the date on which it was filed, or such shorter time as the Commission may designate if consistent with the protection of investors and the public interest, provided that the self-regulatory organization has given 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,[9] the proposed rule change has become effective pursuant to section 19(b)(3)(A) of the Act[10] and Rule 19b–

[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

[3] 15 U.S.C. 78s(b)(3)(A)(iii).

[4] 17 CFR 240.19b–4(f)(6).

[5] LMMs and their affiliated Market Makers will remain subject to CBOE Rule 4.18 (and Rule 8.15A(b)(vii) in the case of LMMs) regarding the prevention of the misuse of material non-public information. DPMs and their affiliated Market-Makers will remain subject to ''Guidelines for Exemptive Relief Under Rule 8.91(e) for Members Affiliated with DPMs,'' set forth in CBOE Rule 8.91, as well as CBOE Rule 4.18. Telephone conversation between Sonia Trocchio, Special Counsel, Division of Trading and Markets, Commission, and Patrick Sexton, Associate General Counsel, CBOE, on April 28, 2008.

[6] *See* CBOE Rule 8.3(c)(vii)(3).

[7] 15 U.S.C. 78f(b).

[8] 15 U.S.C. 78f(b)(5).

[9] CBOE fulfilled this requirement.

[10] 15 U.S.C. 78s(b)(3)(A).

4(f)(6) thereunder.[11] At any time within 60 days of the filing of such proposed rule change, the Commission may summarily abrogate 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.

Under Rule 19b–4(f)(6) of the Act,[12] the proposal does not become operative for 30 days after the date of its filing, or such shorter time as the Commission may designate if consistent with the protection of investors and the public interest. The Exchange has requested that the Commission waive the 30-day operative date. The Exchange states that the proposed rule change provides the same flexibility to DPMs and LMMs that e-DPMs have in terms of allowing affiliated Market-Makers to hold an appointment and to submit electronic quotations in the same class. Moreover, CBOE believes that it would be unfair to DPMs and LMMs to have to wait 30 days for this rule change to take effect, given that such restriction is not in place for e-DPMs, and that DPMs have expressed an interest in having this rule change take effect immediately. Thus, waiving the 30-day operative period will allow the rule change to be implemented immediately and place these types of market participants on equal footing with e-DPMs. Based on these reasons, the Commission believes that waiving the 30-day operative delay is consistent with the protection of investors and the public interest, and thus designates the proposal effective upon filing.[13]

## 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 e-mail to *rule-comments@sec.gov*. Please include File Number SR–CBOE–2008–50 on the subject line.

*Paper Comments*

- Send paper comments in triplicate to Nancy M. Morris, Secretary, Securities and Exchange Commission, 100 F Street, NE., Washington, DC 20549–1090.

All submissions should refer to File Number SR–CBOE–2008–50. This file number should be included on the subject line if e-mail 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 Web site (*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 inspection and copying in the Commission's Public Reference Room, on official business days between the hours of 10 a.m. and 3 p.m. Copies of such filing also will be available for inspection and copying at the principal office of the CBOE. All comments received will be posted without change; the Commission does not edit personal identifying information from submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR–CBOE–2008–50 and should be submitted on or before May 27, 2008.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[14]

**Florence E. Harmon,**

*Deputy Secretary.*

[FR Doc. E8–9908 Filed 5–5–08; 8:45 am]

**BILLING CODE 8010–01–P**

[11] 17 CFR 240.19b–4(f)(6).

[12] *Id.*

[13] For purposes only of waiving the operative date of this proposal, the Commission has considered the proposed rule's impact on efficiency, competition, and capital formation. 15 U.S.C. 78c(f).

[14] 17 CFR 200.30–3(a)(12).

## SECURITIES AND EXCHANGE COMMISSION

**[Release No. 34–57734; File No. SR–CHX–2008–05]**

## Self-Regulatory Organizations; Chicago Stock Exchange, Inc.; Notice of Filing and Immediate Effectiveness of a Proposed Rule Change to Change the Composition of its Regulatory Oversight Committee

April 29, 2008.

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 April 21, 2008, the Chicago Stock Exchange, Inc. (''CHX'' or ''Exchange'') filed with the Securities and Exchange Commission (''Commission'') the proposed rule change as described in Items I and II below, which Items have been substantially prepared by the Exchange. The Exchange has designated this proposal as non-controversial under Section 19(b)(3)(A)(iii) of the Act[3] and Rule 19b–4(f)(6) thereunder.[4] 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 proposes to amend its rules to change the composition of the Regulatory Oversight Committee (''ROC'' or ''Committee'') so that this group consists of at least five Public Directors and to allow the Exchange's Vice Chairman to appoint, and the Public Directors on the Exchange's Board of Directors to approve, up to two Participant Directors to serve as non-voting advisors to the Committee. The text of this proposed rule change is available at the CHX, on the Exchange's Web site at *http://www.chx.com/rules/proposed_rules.html*, and in 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 CHX included statements concerning the purpose of, and basis for, 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

[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

[3] 15 U.S.C. 78s(b)(3)(A)(iii).

[4] 17 CFR 240.19b–4(f)(6).

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

Under its existing rules, the Exchange's ROC consists of seven persons—five Public Directors and two Participant Directors.[5] One of the Participant Directors must be associated with a firm that is primarily engaged in business on the Exchange's trading floor.[6] The other Participant Director must be associated with a participant firm that is not primarily engaged in business on the Exchange's trading floor.[7]

Through this proposal, the Exchange would modify the composition of the ROC so that it would consist of at least five Public Directors. The Exchange would also amend its rules to allow the Exchange's Vice Chairman to appoint, and the Public Directors on the Exchange's Board of Directors to approve, up to two Participant Directors to serve as non-voting advisors to the Committee.

These proposed changes serve several purposes. First, the changes would eliminate references to the Exchange's trading floor when describing the Participant Directors who can serve on the ROC. In the Exchange's new trading model, the Exchange no longer operates a physical trading floor, so these distinctions are no longer particularly useful in distinguishing between Participant Directors.[8]

As an additional matter, the changes would modify the role that Participant Directors play on the ROC—instead of being voting members of the ROC, the Participant Directors would serve as non-voting advisors. This status would allow the Participant Directors to share insights that might prove helpful to the ROC in its oversight of the Exchange's regulatory programs, but would not allow the Participant Directors to vote on issues that may arise.[9]

Finally, the changes would provide some flexibility in the number of persons who must serve on the ROC to better allow the Exchange to respond to changes over time. By allowing the ROC to be composed of ''at least'' five Public Directors, the Exchange's Vice Chairman would be able to appoint, and the Public Directors on the Exchange's Board would be able to approve, some or even all of its Public Directors to the ROC, as the Board believes is appropriate. Similarly, by allowing the Exchange's Vice Chairman to appoint, and the Public Directors on the Exchange's Board to approve, ''up to'' two Participant Directors to serve as advisors to the ROC, the Exchange's Board would be able to determine how many non-voting advisors are appropriate at a particular time. This flexibility would also allow the Board to be sensitive, within reasonable bounds, to the availability of its Board members to serve on committees—the proposal would allow the Exchange's Vice Chairman to appoint, and the Public Directors on the Exchange's Board to approve, five, six or seven Public Directors to the ROC, for example, depending upon each director's ability to dedicate time to the ROC's activities.

The ROC's composition is not described solely in the Exchange's rules; it is also set out in the 2003 settlement agreement that the Exchange entered into with the Commission.[10] The Exchange asked the Commission to amend the Order to incorporate this new composition for the ROC; this rule filing is designed to effectuate the changes to the Order approved by the Commission.[11]

2. Statutory Basis

The CHX believes that the proposal is consistent with the requirements of the Act and the rules and regulations thereunder that are applicable to a national securities exchange, and, in particular, with the requirements of Section 6(b).[12] The proposed rule change is consistent with Section 6(b)(5) of the Act[13] because it would 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 by permitting the Exchange to make reasonable modifications to the required composition of its ROC.

*B. Self-Regulatory Organization's Statement on Burden on Competition*

The Exchange does not believe that the proposed rule changes will impose any burden on competition.

*C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants, or Others*

No written comments were solicited or received.

**III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action**

Because the proposed rule change: (i) Does not significantly affect the protection of investors or the public interest; (ii) does not impose any significant burden on competition; and (iii) does not become operative for 30 days after the date of the filing, or such shorter time as the Commission may designate if consistent with the protection of investors and the public interest, the proposed rule change has become effective pursuant to Section 19(b)(3)(A) of the Act[14] and Rule 19b–4(f)(6) thereunder.[15]

A proposed rule change filed pursuant to Rule 19b–4(f)(6) under the

[5] *See* CHX Rules, Article 2, Rule 4. Under the Exchange's bylaws, a Public Director is a director who (i) *Is* not a participant, or an officer, managing member, partner or employee of a participant firm; (ii) is not an employee of the CHX or any of its affiliates; (iii) is not a broker or dealer that is registered under the Act, or an officer or employee of a broker or dealer that is registered under the Act; or (iv) does not have any other material business relationship with (a) CHX, CHX Holdings or any of their affiliates or (b) any broker or dealer that is registered under the Act. A Participant Director is a participant or an officer, managing member or partner of a participant firm. *See* CHX Bylaws, Article II, Section 2(b). The Commission recently approved a proposed rule change by CHX to amend the definition of Public Director in its bylaws to refer to brokers or dealers registered under the Act. *See* Securities Exchange Act Release No. 57699 (April 23, 2008), 73 FR 23287 (April 29, 2008) (SR–2008–CHX–02).

[6] This director is called an ''On-Floor Participant Director'' in the current rule. *See* CHX Rules, Article 2, Rule 4.

[7] This director is called ''Off-Floor Participant Director'' in the current rule. *See* CHX Rules, Article 2, Rule 4.

[8] The Exchange fully transitioned to its new trading model on January 26, 2007.

[9] The Exchange believes that a non-voting, advisory role for Participant Directors is more consistent with the Commission's proposed self-regulatory organization (''SRO'') governance rules, which, if approved, would require that each SRO's ROC be composed entirely of independent (or public) directors, but that would not, at least on its face, prohibit an SRO from appointing an advisory group of members to work with the ROC. *See* Securities Exchange Act Release No. 50699 (November 18, 2004), 69 FR 71126 (December 8, 2004) (S7–39–04). Although these proposals have not been approved as final rules, the Exchange believes that they provide strong guidelines for SROs to consider as they review their internal governance structures.

[10] *See* Securities Exchange Act Release No. 48566 (September 30, 2003) (Administrative Proceeding File No. 3–11282) (''Order'').

[11] *See* Securities Exchange Act Release No. 57605 (April 2, 2008) (Administrative Proceeding File No. 3–11282).

[12] 15 U.S.C. 78f(b).

[13] 15 U.S.C. 78f(b)(5).

[14] U.S.C. 78s(b)(3)(A).

[15] 17 CFR 240.19b–4(f)(6). Pursuant to Rule 19b–4(f)(6)(iii) under the Act, the Exchange is required to give the Commission written notice of its intent to file the proposed rule change, along with a brief description and text of 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 the five-day pre-filing requirement.

Act[16] normally does not become operative for 30 days after the date of its filing. However, Rule 19b–4(f)(6)(iii)[17] permits the Commission to designate a shorter time if such action is consistent with the protection of investors and the public interest. The CHX has requested that the Commission waive the 30-day operative delay. The Commission believes that waiving the 30-day operative delay is consistent with the protection of investors and the public interest because it will allow the Exchange to implement the changes to the ROC without delay.[18]

At any time within 60 days of the filing of the proposed rule change, the Commission may summarily abrogate the proposed 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.

## 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 e-mail to *rule-comments@sec.gov.* Please include File Number SR–CHX–2008–05 on the subject line.

*Paper Comments*

- Send paper comments in triplicate to Nancy M. Morris, Secretary, Securities and Exchange Commission, 100 F Street, NE., Washington, DC 20549–1090.

All submissions should refer to File Number SR–CHX–2008–05. This file number should be included on the subject line if e-mail 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 Web site (*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 inspection and copying in the Commission's Public Reference Room, on official business days between the hours of 10 a.m. and 3 p.m. Copies of the filing also will be available for inspection and copying at the principal office of the CHX. All comments received will be posted without change; the Commission does not edit personal identifying information from submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR–CHX–2008–05 and should be submitted on or before May 27, 2008.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[19]

**Florence E. Harmon,**

*Deputy Secretary.*

[FR Doc. E8–9866 Filed 5–5–08; 8:45 am]

**BILLING CODE 8010–01–P**

[16] 17 CFR 240.19b–4(f)(6).

[17] 17 CFR 240.19b–4(f)(6)(iii).

[18] For purposes only of waiving the 30-day operative delay, the Commission has considered the impact of the proposed rule on efficiency, competition, and capital formation. *See* 15 U.S.C. 78c(f).

[19] 17 CFR 200.30–3(a)(12).

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## SECURITIES AND EXCHANGE COMMISSION

**[Release No. 34–57736; File No. SR–ISE–2008–35]**

## Self-Regulatory Organizations; International Securities Exchange, LLC; Notice of Filing and Immediate Effectiveness of Proposed Rule Change Regarding Position and Exercise Limits for Options on the DIAMONDS Trust

April 29, 2008.

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 April 17, 2008, the International Securities Exchange, LLC (''Exchange'' or ''ISE'') filed with the Securities and Exchange Commission (''Commission'') the proposed rule change as described in Items I and II below, which Items have been substantially prepared by the Exchange. The Exchange has designated this proposal as non-controversial under Section 19(b)(3)(A)(iii) of the Act[3] and Rule 19b–4(f)(6) thereunder,[4] which renders the proposed rule change effective upon filing with the Commission. 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 proposes to amend its rules to increase the position and exercise limits applicable to options on the DIAMONDS Trust, Series 1 (''DIA''). The text of the proposed rule change is available on the Exchange's Web site (*http://www.ise.com*), at the offices of the Exchange, 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 is proposing to amend its rules pertaining to position and exercise limits for options on DIA. The Exchange proposes to increase position and exercise limits for options on DIA to 300,000 contracts on the same side of the market. The Commission previously approved a similar proposal of the Chicago Board Options Exchange (''CBOE'').[5]

[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

[3] 15 U.S.C. 78s(b)(3)(A)(iii).

[4] 17 CFR 240.19b–4(f)(6).

[5] *See* Securities Exchange Act Release No. 47346 (February 11, 2003), 68 FR 8316 (February 20, 2003) (SR–CBOE–2002–26) (approving an increase in the position limits and exercise limits to 300,000 for DIA options). The Commission stated that ''given the surveillance capabilities of the [CBOE] and the depth and liquidity in both the DIA options and the underlying cash market in DIAs, the Commission believes it is permissible to significantly raise position and exercise limits for DIA options without risk of disruption to the options or underlying cash markets.'' The Commission also stated that ''financial and reporting requirements . . . should allow [CBOE] to detect and deter trading abuses arising from the increased position and exercise limits, and will also allow [CBOE] to monitor large positions in order to identify instances of potential risk and to assess additional margin and/or capital charges, if deemed necessary.''

The Exchange also recently made permanent its increased position and exercise limits for certain equity options on ISE which were in effect on a pilot basis.[6] The Exchange stipulated, as part of its proposal for such permanent approval, that ''its surveillance procedures and options reporting procedures, in conjunction with the financial requirements and risk management review procedures generally in place at the clearing firms and the Options Clearing Corporation, will serve to adequately address any concerns the Commission may have with respect to account(s) engaging in any manipulative schemes or assuming too high a level of risk exposure.'' [7] These representations also apply to the current proposal to increase the position and exercise limits for options on DIA. The Exchange now seeks to increase the position and exercise limits for options on DIA on ISE to the level that such limits are in effect on CBOE (300,000 contracts on the same side of the market).

The Exchange asserts that the justifications behind the Commission's approval of CBOE's proposal should support the same increased position and exercise limits on options on DIA on ISE. Specifically, the Exchange believes that the ''structure of the DIA options and the considerable liquidity of both the underlying cash and options market for DIA options lessen the opportunity for manipulation of this product and disruption in the underlying market that a lower position limit may protect against.'' [8]

The Exchange believes that the reporting requirements imposed under the Exchange's rules will help protect against potential manipulation.[9] Additionally, the Exchange believes that such an increase in position and exercise limits on options on DIA on ISE is also required for competitive purposes as well as for purposes of consistency and uniformity among the competing options exchanges. This, taken in conjunction with the permanent establishment of other increased position and exercise limits for certain equity options on ISE, supports the Exchange's proposal related to such increased position and exercise limits applicable to DIA.

2. Statutory Basis

The Exchange believes that the proposal is consistent with the requirements of Section 6(b) of the Act [10] in general, and Section 6(b)(5) of the Act [11] in particular, in that it is designed to promote just and equitable principles of trade, to prevent fraudulent and manipulative acts, 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. Specifically, the Exchange believes that the structure of the DIA options and the considerable liquidity of the market for DIA options diminishes the opportunity for manipulation of this product and disruption in the underlying market that a lower position limit may protect against.

*B. Self-Regulatory Organization's Statement on Burden on Competition*

The Exchange believes that the proposed rule change does not impose 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 has not solicited, and does not intend to solicit, comments on this proposed rule change. The Exchange has not received any unsolicited written comments from members or other interested parties.

**III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action**

The Exchange has designated the proposed rule change as one that: (1) Does not significantly affect the protection of investors or the public interest; (2) does not impose any significant burden on competition; and (3) does not become operative for 30 days from the date of filing, or such shorter time as the Commission may designate if consistent with the protection of investors and the public interest. Therefore, the foregoing rule change has become effective pursuant to Section 19(b)(3)(A) of the Act [12] and subparagraph (f)(6) of Rule 19b–4 thereunder.[13]

The Exchange notes that the proposed rule change is based on a rule change previously approved by the Commission [14] and does not raise any novel issues. Additionally, the proposed rule change is necessary to eliminate any confusion among members of multiple exchanges regarding position and exercise limits applicable to options on DIA and for purposes of maintaining a fair and orderly market.

The Exchange has asked the Commission to waive the operative delay to permit the proposed rule change to become operative prior to the 30th day after filing. The Exchange states that waiving the operative delay will allow the Exchange to immediately increase the position and exercise limits applicable to options on DIA on ISE, for purposes of conformity and uniformity, so as to align such limits with those of other options exchanges.

The Commission believes that waiving the 30-day operative delay of the Exchange's proposal is consistent with the protection of investors and the public interest.[15] Therefore, the Commission designates the proposal to be operative upon filing.

At any time within 60 days of the filing of the proposed rule change, the Commission may summarily abrogate the 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.

**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 e-mail to *rule-comments@sec.gov.* Please include File No. SR–ISE–2008–35 on the subject line.

[6] *See* Securities Exchange Act Release No. 57416 (March 3, 2008), 73 FR 12489 (March 7, 2008) (SR–ISE–2008–20).

[7] *Id.*

[8] *See* Securities Exchange Act Release No. 47346, *supra* note 5.

[9] *See* ISE Rule 415.

[10] 15 U.S.C. 78f(b).

[11] 15 U.S.C. 78f(b)(5).

[12] 15 U.S.C. 78s(b)(3)(A).

[13] 17 CFR 240.19b–4(f)(6). In addition, Rule 19b–4(f)(6)(iii) requires a self-regulatory organization to provide the Commission with written notice of its intent to file the proposed rule change, along with a brief description and text of 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 fulfilled this requirement.

[14] *See* Securities Exchange Act Release No. 47346, *supra* note 5.

[15] For purposes only of waiving the 30-day operative delay, the Commission has considered the proposed rule's impact on efficiency, competition, and capital formation. *See* 15 U.S.C. 78c(f).

*Paper Comments*

- Send paper comments in triplicate to Nancy M. Morris, Secretary, Securities and Exchange Commission, 100 F Street, NE., Washington, DC 20549–1090.

All submissions should refer to File Number SR–ISE–2008–35. This file number should be included on the subject line if e-mail 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 Web site (*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 inspection and copying in the Commission's Public Reference Room, 100 F Street, NE., Washington, DC 20549, on official business days between the hours of 10 a.m. and 3 p.m. Copies of such filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change; the Commission does not edit personal identifying information from submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR–ISE–2008–35 and should be submitted on or before May 27, 2008.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[16]

**Florence E. Harmon,**

*Deputy Secretary.*

[FR Doc. E8–9907 Filed 5–5–08; 8:45 am]

**BILLING CODE 8010–01–P**

[16] 17 CFR 200.30–3(a)(12).

## SECURITIES AND EXCHANGE COMMISSION

**[Release No. 34–57744; File No. SR–ODD–2008–01]**

## Self-Regulatory Organizations; The Options Clearing Corporation; Order Granting Approval of Accelerated Delivery of Supplement to the Options Disclosure Document Reflecting Changes to Disclosure Regarding Certain Binary Options and Delayed Start Option Series; and Amendment to the Options Disclosure Document Front Cover Page To Update the Markets in Which Options Are Traded

April 30, 2008.

On December 21, 2007, The Options Clearing Corporation (''OCC'') submitted to the Securities and Exchange Commission (''Commission''), pursuant to Rule 9b–1 under the Securities Exchange Act of 1934 (''Act''),[1] five preliminary copies of a supplement to its options disclosure document (''ODD'') reflecting changes to disclosure regarding certain binary options and delayed start option series (''DSOs'').[2] The ODD would also be amended to update its front inside cover page so that it contains a current list of the U.S. exchanges that trade options issued by the OCC. On April 25, 2008, the OCC submitted to the Commission five definitive copies of the supplement.[3]

The ODD currently contains general disclosures on the characteristics and risks of trading standardized options. Recently, the American Stock Exchange, LLC amended its rules to permit the listing and trading of binary options on individual stocks and exchange-traded funds, also known as fixed return options.[4] The Chicago Board Options Exchange, Incorporated amended its rules to permit the listing and trading of certain DSOs.[5] The NASDAQ Stock Market LLC (''Nasdaq'') began trading options March 31, 2008.[6] The proposed supplement amends the ODD to accommodate these changes by providing disclosure regarding certain binary options and DSOs, and to update the front cover page of the ODD.

Specifically, the proposed supplement to the ODD adds new disclosure regarding the characteristics of binary options on individual equity securities, which includes fund shares, as well as the special risks of these binary options other than credit default options.[7] The proposed supplement to the ODD also adds new disclosure regarding the characteristics of DSOs and the risks associated with their purchase and sale. Finally, the ODD would be amended to add Nasdaq, which currently trades options issued by OCC, and its corporate address to the front cover page of the ODD. This change will ensure that the ODD accurately identifies the markets on which options currently trade. The proposed supplement is intended to be read in conjunction with the more general ODD, which, as described above, discusses the characteristics and risks of options generally.[8]

Rule 9b–1(b)(2)(i) under the Act[9] provides that an options market must file five copies of an amendment or supplement to the ODD with the Commission at least 30 days prior to the date definitive copies are furnished to customers, unless the Commission determines otherwise, having due regard to the adequacy of information disclosed and the public interest and protection of investors.[10] In addition, five copies of the definitive ODD, as amended or supplemented, must be filed with the Commission not later than the date the amendment or supplement, or the amended options disclosure document, is furnished to customers.

[1] 17 CFR 240.9b–1.

[2] *See* letter from Jean M. Cawley, Senior Vice President and Deputy General Counsel, OCC, to Sharon Lawson, Senior Special Counsel, Division of Trading and Markets (''Division''), Commission, dated December 20, 2007.

[3] *See* letter from Jean M. Cawley, Senior Vice President and Deputy General Counsel, OCC, to Sharon Lawson, Senior Special Counsel, Division, Commission, dated April 25, 2008.

[4] *See* Securities Exchange Act Release No. 56251 (August 14, 2007), 72 FR 46523 (August 20, 2007) (SR–Amex–2004–27).

[5] *See* Securities Exchange Act Release No. 56855 (November 28, 2007), 72 FR 68610 (December 5, 2007) (SR–CBOE–2006–90). CBOE Rule 24.9(d)(1) permits it to trade DSOs on any security index approved for options trading on the CBOE.

[6] *See* Securities Exchange Act Release No. 57478 (March 12, 2008), 73 FR 14521 (March 18, 2008) (order approving File Nos. SR–NASDAQ–2007–004 and SR–NASDAQ–2007–080).

[7] As noted above, the proposed supplement provides disclosure that addresses binary options on individual stock options and exchange-traded fund shares. The Commission also notes that disclosure on credit default options, which are also binary options, is currently addressed in the ODD through the previously issued June 2007 supplement. *See* Securities Exchange Act Release No. 55921 (June 18, 2007), 72 FR 34495 (June 22, 2007) (SR–ODD–2007–03).

[8] The Commission notes that the options markets must continue to ensure that the ODD is in compliance with the requirements of Rule 9b–1(b)(2)(i) under the Act, 17 CFR 240.9b–1(b)(2)(i), including when future changes regarding binary options and/or DSOs are made. Any future changes to the rules of the options markets concerning binary options and/or DSOs would need to be submitted to the Commission under Section 19(b) of the Act. 15 U.S.C. 78s(b).

[9] 17 CFR 240.9b–1(b)(2)(i).

[10] This provision permits the Commission to shorten or lengthen the period of time which must elapse before definitive copies may be furnished to customers.

The Commission has reviewed the proposed supplement and finds, having due regard to the adequacy of information disclosed and the public interest and protection of investors, that the proposed supplement may be furnished to customers as of the date of this order.

*It is therefore ordered*, pursuant to Rule 9b–1 under the Act,[11] that definitive copies of the proposed supplement to the ODD (SR–ODD–2008–01), reflecting changes to disclosure regarding binary options, DSOs and the front cover page, may be furnished to customers as of the date of this order.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[12]

**Florence E. Harmon,**

*Deputy Secretary.*

[FR Doc. E8–9909 Filed 5–5–08; 8:45 am]

**BILLING CODE 8010–01–P**

[11] 17 CFR 240.9b–1.

[12] 17 CFR 200.30–3(a)(39).

## SECURITIES AND EXCHANGE COMMISSION

**[Release No. 34–57737; File No. SR–Phlx–2008–28]**

## Self-Regulatory Organizations; Philadelphia Stock Exchange, Inc.; Notice of Filing and Immediate Effectiveness of Proposed Rule Change Regarding Position and Exercise Limits for Options on the DIAMONDS Trust

April 29, 2008.

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 April 24, 2008, the Philadelphia Stock Exchange, Inc. (''Exchange'' or ''Phlx'') filed with the Securities and Exchange Commission (''Commission'') the proposed rule change as described in Items I and II below, which Items have been substantially prepared by the Exchange. The Exchange has designated this proposal as non-controversial under Section 19(b)(3)(A)(iii) of the Act[3] and Rule 19b–4(f)(6) thereunder,[4] which renders the proposed rule change effective upon filing with the Commission. The Commission is publishing this notice to solicit comments on the proposed rule change from interested persons.

[1] 15 U.S.C. 78s(b)(1).

[2] 17 CFR 240.19b–4.

[3] 15 U.S.C. 78s(b)(3)(A)(iii).

[4] 17 CFR 240.19b–4(f)(6).

### I. Self-Regulatory Organization's Statement of the Terms of Substance of the Proposed Rule Change

The Exchange proposes to amend Rule 1001 (Position Limits) to establish increased position limits for options on the Diamonds Trust, Series 1 (''DIA'' or ''DIA Options'').

The text of the proposed rule change is available on the Exchange's Web site (*http://www.Phlx.com*), at the offices of the Exchange, 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 is proposing to amend Phlx Rule 1001 pertaining to position limits for options on DIA. In particular, the Exchange proposes to increase position limits for DIA Options to 300,000 contracts on the same side of the market, which should encourage a more liquid and competitive market environment to the benefit of customers interested in the product. The Commission previously approved a similar proposal of the Chicago Board Options Exchange (''CBOE'').[5]

The Exchange also recently made permanent increased position limits for certain equity options on Phlx, which were in effect on a pilot basis.[6] The Exchange stipulated, as part of its proposal for such permanent approval, that ''its surveillance procedures . . . and reporting procedures, in conjunction with the financial requirements and risk management review procedures already in place at the clearing firms and the Options Clearing Corporation, will serve to adequately address any concerns the Commission may have respecting account(s) engaging in manipulative schemes or assuming too high a level of risk exposure.''[7] These representations also apply to the current proposal to increase the position limits for DIA Options. The Exchange now seeks to increase the position and exercise limits for options on DIA on Phlx to the level that such limits are in effect on other options exchanges such as BOX and CBOE (300,000 contracts on the same side of the market).

The Exchange believes that the justifications behind the Commission's approval of CBOE's proposal to increase position limits on DIA Options should support the same increased position limits on such options on Phlx. Specifically, the Exchange believes that the ''structure of the DIA options and the considerable liquidity of both the underlying cash and options market for DIA options lessen the opportunity for manipulation of this product and disruption in the underlying market that a lower position limit may protect against.''[8] The Exchange believes that the reporting requirements imposed under the Phlx rules will help protect against potential manipulation.[9] Additionally, the Exchange believes that an increase in position limits on DIA Options on Phlx is also required for competitive purposes as well as for purposes of consistency and uniformity among the competing options exchanges. This, taken in conjunction with the permanent establishment of other increased position limits for certain equity options on Phlx,[10] supports the Exchange's proposal related to increased position limits applicable to DIA Options.

[5] *See* Securities Exchange Act Release No. 47346 (February 11, 2003), 68 FR 8316 (February 20, 2003) (SR–CBOE–2002–26) (approving an increase in the position limits and exercise limits to 300,000 for DIA options). The Commission stated that ''given the surveillance capabilities of the [CBOE] and the depth and liquidity in both the DIA options and the underlying cash market in DIAs, the Commission believes it is permissible to significantly raise position and exercise limits for DIA options without risk of disruption to the options or underlying cash markets.'' The Commission also stated that ''financial and reporting requirements . . . should allow [CBOE] to detect and deter trading abuses arising from the increased position and exercise limits, and will also allow [CBOE] to monitor large positions in order to identify instances of potential risk and to assess additional margin and/or capital charges, if deemed necessary.''

[6] *See* Securities Exchange Act Release No. 57418 (March 3, 2008), 73 FR 12493 (March 7, 2008) (SR–Phlx–2008–14).

[7] *Id.*

[8] *See* Securities Exchange Act Release No. 47346, *supra* note 5.

[9] *See* Phlx Rule 1003.

[10] *See* Securities Exchange Act Release No. 57418, *supra* note 6. *See also* Securities Exchange Act Release No. 57597 (April 1, 2008), 73 FR 18846 (April 7, 2008) (SR–Phlx–2008–24) (IWM position limits).

2. Statutory Basis

The Exchange believes that its proposal is consistent with Section 6(b) of the Act [11] in general, and furthers the objectives of Section 6(b)(5) of the Act [12] in particular, in that it is designed 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. Specifically, the Exchange believes that the structure of the DIA Options and the considerable liquidity of the market for such options diminish the opportunity for manipulation of this product and for disruption in the underlying market that a lower position limit may protect against.

*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.

*C. Self-Regulatory Organization's Statement on Comments on the Proposed Rule Change Received From Members, Participants or Others*

No written comments were either solicited or received.

**III. Date of Effectiveness of the Proposed Rule Change and Timing for Commission Action**

The Exchange has designated the proposed rule change as one that: (1) Does not significantly affect the protection of investors or the public interest; (2) does not impose any significant burden on competition; and (3) does not become operative for 30 days from the date of filing, or such shorter time as the Commission may designate if consistent with the protection of investors and the public interest. Therefore, the foregoing rule change has become effective pursuant to Section 19(b)(3)(A) of the Act [13] and subparagraph (f)(6) of Rule 19b–4 thereunder.[14]

The Exchange has asked the Commission to waive the operative delay to permit the proposed rule change to become operative prior to the 30th day after filing. The Exchange states that waiving the operative delay will allow the Exchange to immediately use position limits that are currently available to other options exchanges. The Exchange believes that waiving the 30-day operative delay is consistent with the protection of investors and the public interest in that it would establish the same position limits that are available to other options exchanges.

The Commission believes that waiving the 30-day operative delay of the Exchange's proposal is consistent with the protection of investors and the public interest.[15] Therefore, the Commission designates the proposal to be operative upon filing.

At any time within 60 days of the filing of the proposed rule change, the Commission may summarily abrogate the 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.

**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 e-mail to *rule-comments@sec.gov.* Please include File No. SR–Phlx–2008–28 on the subject line.

*Paper Comments*

- Send paper comments in triplicate to Nancy M. Morris, Secretary, Securities and Exchange Commission, 100 F Street, NE., Washington, DC 20549–1090.

All submissions should refer to File Number SR–Phlx–2008–28. This file number should be included on the subject line if e-mail 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 Commissions Internet Web site (*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 inspection and copying in the Commission's Public Reference Room, 100 F Street, NE., Washington, DC 20549, on official business days between the hours of 10 a.m. and 3 p.m. Copies of such filing also will be available for inspection and copying at the principal office of the Exchange. All comments received will be posted without change; the Commission does not edit personal identifying information from submissions. You should submit only information that you wish to make available publicly. All submissions should refer to File Number SR-Phlx–2008–28 and should be submitted on or before May 27, 2008.

For the Commission, by the Division of Trading and Markets, pursuant to delegated authority.[16]

**Florence E. Harmon,**

*Deputy Secretary.*

[FR Doc. E8–9867 Filed 5–5–08; 8:45 am]

**BILLING CODE 8010–01–P**

[11] 15 U.S.C. 78f(b).

[12] 15 U.S.C. 78f(b)(5).

[13] 15 U.S.C. 78s(b)(3)(A).

[14] 17 CFR 240.19b–4(f)(6). In addition, Rule 19b–4(f)(6)(iii) requires a self-regulatory organization to provide the Commission with written notice of its intent to file the proposed rule change, along with a brief description and text of 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 fulfilled this requirement.

[15] For purposes only of waiving the 30-day operative delay, the Commission has considered the proposed rule's impact on efficiency, competition, and capital formation. See 15 U.S.C. 78c(f).

[16] 17 CFR 200.30–3(a)(12).

## SMALL BUSINESS ADMINISTRATION

**[Disaster Declaration # 11223 and # 11224]**

### Colorado Disaster # CO–00020

**AGENCY:** U.S. Small Business Administration.

**ACTION:** Notice.

**SUMMARY:** This is a notice of an Administrative declaration of a disaster for the State of Colorado dated 04/28/2008.

*Incident:* Ordway Fire.

*Incident Period:* 04/14/2008 through 04/15/2008.

*Effective Date:* 04/28/2008.

*Physical Loan Application Deadline Date:* 06/27/2008.

*Economic Injury (EIDL) Loan Application Deadline Date:* 01/28/2009.

**ADDRESSES:** Submit completed loan applications to: U.S. Small Business Administration, Processing and Disbursement Center, 14925 Kingsport Road, Fort Worth, TX 76155.

**FOR FURTHER INFORMATION CONTACT:** A. Escobar, Office of Disaster Assistance, U.S. Small Business Administration, 409 3rd Street, SW., Suite 6050, Washington, DC 20416.

**SUPPLEMENTARY INFORMATION:** Notice is hereby given that as a result of the Administrator's disaster declaration, applications for disaster loans may be filed at the address listed above or other locally announced locations.

The following areas have been determined to be adversely affected by the disaster:

Primary Counties: Crowley.

Contiguous Counties:

Colorado: El Paso, Kiowa, Lincoln, Otero, Pueblo.

*The Interest Rates are:*

| | Percent |
|---|---|
| Homeowners with credit available elsewhere | 5.500 |
| Homeowners without credit available elsewhere | 2.750 |
| Businesses with credit available elsewhere | 8.000 |
| Businesses and small agricultural cooperatives without credit available elsewhere | 4.000 |
| Other (including non-profit organizations) with credit available elsewhere | 5.250 |
| Businesses and non-profit organizations without credit available elsewhere | 4.000 |

The number assigned to this disaster for physical damage is 11223 5 and for economic injury is 11224 0.

The State which received an EIDL Declaration # is Colorado.

(Catalog of Federal Domestic Assistance Numbers 59002 and 59008)

Dated: April 28, 2008.

**Steven C. Preston,**

*Administrator.*

[FR Doc. E8–9856 Filed 5–5–08; 8:45 am]

BILLING CODE 8025–01–P

## SMALL BUSINESS ADMINISTRATION

**[Disaster Declaration # 11225 and # 11226]**

### Kentucky Disaster # KY–00015

**AGENCY:** U.S. Small Business Administration.

**ACTION:** Notice.

**SUMMARY:** This is a notice of an Administrative declaration of a disaster for the State of Kentucky dated 04/28/2008.

*Incident:* Severe Storm and Tornadoes.

*Incident Period:* 04/04/2008 through 04/11/2008.

**EFFECTIVE DATE:** 04/28/2008.

*Physical Loan Application Deadline Date:* 06/27/2008.

*Economic Injury (EIDL) Loan Application Deadline Date:* 01/28/2009.

**ADDRESSES:** Submit completed loan applications to: U.S. Small Business Administration, Processing and Disbursement Center, 14925 Kingsport Road, Fort Worth, TX 76155.

**FOR FURTHER INFORMATION CONTACT:** A Escobar, Office of Disaster Assistance, U.S. Small Business Administration, 409 3rd Street, SW., Suite 6050, Washington, DC 20416.

**SUPPLEMENTARY INFORMATION:** Notice is hereby given that as a result of the Administrator's disaster declaration, applications for disaster loans may be filed at the address listed above or other locally announced locations.

The following areas have been determined to be adversely affected by the disaster:

Primary Counties: Wayne

Contiguous Counties:

Kentucky: Clinton, McCreary, Pulaski, Russell

Tennessee: Pickett, Scott

*The Interest Rates are:*

| | Percent |
|---|---|
| Homeowners With Credit Available Elsewhere | 5.500 |
| Homeowners Without Credit Available Elsewhere | 2.750 |
| Businesses With Credit Available Elsewhere | 8.000 |
| Businesses & Small Agricultural Cooperatives Without Credit Available Elsewhere | 4.000 |
| Other (Including Non-Profit Organizations) With Credit Available Elsewhere | 5.250 |
| Businesses And Non-Profit Organizations Without Credit Available Elsewhere | 4.000 |

The number assigned to this disaster for physical damage is 11225 C and for economic injury is 11226 0.

The States which received EIDL Declaration # are Kentucky, Tennessee.

(Catalog of Federal Domestic Assistance Numbers 59002 and 59008)

Dated: April 28, 2008.

**Steven C. Preston,**

*Administrator.*

[FR Doc. E8–9857 Filed 5–5–08; 8:45 am]

BILLING CODE 8025–01–P

## DEPARTMENT OF STATE

**[Public Notice 6215]**

### Culturally Significant Objects Imported for Exhibition Determinations: ''Tutankhamun: The Golden King and the Great Pharaohs''

**SUMMARY:** Notice is hereby given of the following determinations: Pursuant to the authority vested in me by the Act of October 19, 1965 (79 Stat. 985; 22 U.S.C. 2459), Executive Order 12047 of March 27, 1978, the Foreign Affairs Reform and Restructuring Act of 1998 (112 Stat. 2681, *et seq.*; 22 U.S.C. 6501 note, *et seq.*), Delegation of Authority No. 234 of October 1, 1999, Delegation of Authority No. 236 of October 19, 1999, as amended, and Delegation of Authority No. 257 of April 15, 2003 [68 FR 19875], I hereby determine that the objects to be included in the exhibition ''Tutankhamun: The Golden King and the Great Pharoahs'', imported from abroad for temporary exhibition within the United States, are of cultural significance. The objects are imported pursuant to loan agreements with the foreign owners or custodians. I also determine that the exhibition or display of the exhibit objects at the Michael C. Carlos Museum, from on or about November 8, 2008, until on or about May 31, 2009; the Children's Museum of Indianapolis, from on or about July 1, 2009, to on or about November 1, 2009; the Phoenix Art Museum, from on or about December 12, 2009, to on or about May 31, 2010; The Denver Art Museum, from on or about July 1, 2010, to on or about January 2, 2011; the Science Museum of Minnesota, from on or about February 12, 2011, to on or about August 28, 2011; the Museum of Fine Arts, Houston, from on or about October 8, 2011, to on or about April 15, 2012; Pacific Science Center, from on or about May 22, 2012, to on or about December 31, 2012; and at possible additional exhibitions or venues yet to be determined, is in the national interest. Public Notice of these Determinations is ordered to be published in the **Federal Register**.

**FOR FURTHER INFORMATION CONTACT:** For further information, including a list of the exhibit objects, contact Carol B. Epstein, Attorney-Adviser, Office of the Legal Adviser, U.S. Department of State (telephone: 202/453–8048). The address is U.S. Department of State, SA–44, 301 4th Street, SW., Room 700, Washington, DC 20547–0001.

Dated: April 28, 2008.

**C. Miller Crouch,**

*Principal Deputy Assistant Secretary for Educational and Cultural Affairs, Department of State.*

[FR Doc. E8–9975 Filed 5–5–08; 8:45 am]

**BILLING CODE 4710–05–P**

## TENNESSEE VALLEY AUTHORITY

### Paperwork Reduction Act of 1995, as Amended by Pub. L. 104–13; Submission for OMB Review; Comment Request

**AGENCY:** Tennessee Valley Authority.

**ACTION:** Proposed collection; comment request.

**SUMMARY:** The proposed information collections described below will be submitted to the Office of Management and Budget (OMB) for review, as required by the Paperwork Reduction Act of 1995 (44 U.S.C. Chapter 35, as amended). The Tennessee Valley Authority is soliciting public comments on these proposed collections as provided by 5 CFR 1320.8(d)(1). Requests for information, including copies of the information collection proposed and supporting documentation, should be directed to the Agency Clearance Officer: Mark R. Winter, Tennessee Valley Authority, 1101 Market Street (MP 3C), Chattanooga, Tennessee 37402–2801; (423) 751–6004.

Comments should be sent to the Agency Clearance Officer no later than July 7, 2008.

**SUPPLEMENTARY INFORMATION:**

*Type of Request:* Regular Submission; proposal for new data collection.

*Title of Information Collection:* Reservoir Land Management Plan.

*Frequency of Use:* On occasion.

*Type of Affected Public:* Individuals or households, business or other for-profit, non-profit institutions, farms, Federal Government, and State or local governments.

*Small Business or Organizations Affected:* Yes.

*Estimated Number of Annual Responses:* 5,000.

*Estimated Total Annual Burden Hours:* 2,500.

*Estimated Average Burden Hours Per Response:* .5 hour.

*Need For and Use of Information:* As part of TVA's efforts to update Reservoir Land Management Plans, TVA will conduct surveys to gather public input from the public regarding zoning allocations for TVA properties. Information gathered will be used to satisfy the requirements of the NEPA public input process and will be used to aid TVA in making zone allocation decisions regarding use of TVA lands.

*Type of Request:* Regular Submission.

*Title of Information Collection:* Residential Saturation Survey.

*Frequency of Use:* On occasion.

*Small Business or Organizations Affected:* No.

*Estimated Number of Annual Responses:* 10,000.

*Estimated Total Annual Burden Hours:* 3,300.

*Estimated Average Burden Hours Per Response:* .33 hour.

*Need For and Use of Information:* Residential information is collected as an independent measure of indirect program impact, effectiveness of communication efforts, changing demographics, program administration, changes in the saturation of other fuels, potential interest in energy efficiency, drivers of energy efficiency and changes in saturation of other electrical equipment. Results are used with the *energy right* Program and power planning purposes at TVA.

**Steven A. Anderson,**

*Senior Manager, IT Planning and Governance, Information Services.*

[FR Doc. E8–9941 Filed 5–5–08; 8:45 am]

**BILLING CODE 8120–08–P**

## TENNESSEE VALLEY AUTHORITY

### Paperwork Reduction Act of 1995, as Amended by Pub. L. 104–13; Submission for OMB Review; Comment Request

**AGENCY:** Tennessee Valley Authority.

**ACTION:** Submission for OMB Review; comment request.

**SUMMARY:** The proposed information collections described below will be submitted to the Office of Management and Budget (OMB) for review, as required by the Paperwork Reduction Act of 1995 (44 U.S.C Chapter 35, as amended). The Tennessee Valley Authority is soliciting public comments on these proposed collections as provided by 5 CFR 1320.8(d)(1). Requests for information, including copies of the information collection proposed and supporting documentation, should be directed to the Agency Clearance Officer: Mark R. Winter, Tennessee Valley Authority, 1101 Market Street (EB 5B), Chattanooga, Tennessee 37402–2801; (423) 751–6004.

Comments should be sent to OMB Office of Information & Regulatory Affairs, Attention: Desk Officer for Tennessee Valley Authority, no later than June 5, 2008.

**SUPPLEMENTARY INFORMATION:** *Type of Request:* Regular Submission.

*Title of Information Collection:* TVA Valley Relations Stakeholder Survey.

*Frequency of Use:* On occasion.

*Small Business or Organizations Affected:* Yes.

*Estimated Number of Annual Responses:* 600.

*Estimated Total Annual Burden Hours:* 100.

*Estimated Average Burden Hours Per Response:* 10 minutes.

*Need For and Use of Information:* This information collection will obtain feedback from key stakeholders. The information collected will help TVA evaluate its performance and identify areas of effectiveness and opportunities for future improvement.

*Type of Request:* Regular submission; reinstatement without change of a previously approved collection (OMB control number 3316–0016).

*Title of Information Collection:* Farmer Questionnaire—Vicinity of Nuclear Power Plants.

*Frequency of Use:* On occasion.

*Type of Affected Public:* Individuals or households, and farms.

*Small Businesses or Organizations Affected:* No.

*Federal Budget Functional Category Code:* 271.

*Estimated Number of Annual Responses:* 300.

*Estimated Total Annual Burden Hours:* 150.

*Estimated Average Burden Hours Per Response:* .5.

*Need For and Use of Information:* This survey is used to locate, for monitoring purposes, rural residents, home gardens, and milk animals within a five mile radius of a nuclear power plant. The monitoring program is a mandatory requirement of the Nuclear Regulatory Commission set out in the technical specifications when the plants were licensed.

**Steven A. Anderson,**

*Senior Manager, IT Planning and Governance, Information Services.*

[FR Doc. E8–9942 Filed 5–5–08; 8:45 am]

**BILLING CODE 8120–08–P**

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

### Receipt of Noise Compatibility Program and Request for Review, Burlington International Airport, South Burlington, VT

**AGENCY:** Federal Aviation Administration, DOT.

**ACTION:** Notice.

**SUMMARY:** The Federal Aviation Administration (FAA) announces that it is reviewing a proposed noise compatibility program that was submitted for Burlington International Airport under the provisions of 49 U.S.C. 47504 *et seq.* (the Aviation Safety and Noise Abatement Act, hereinafter referred to as ''the Act'') and 14 CFR Part 150 by the City of Burlington. This program was submitted subsequent to a determination by FAA that associated noise exposure maps submitted under 14 CFR Part 150 for Burlington International Airport were in compliance with applicable requirements, effective November 6, 2007. The proposed noise compatibility program will be approved or disapproved on or before October 20, 2008.

**EFFECTIVE DATE:** The effective date of the start of FAA's review of the noise compatibility program is April 23, 2008. The public comment period ends June 7, 2008.

**FOR FURTHER INFORMATION CONTACT:** Richard Doucette, Federal Aviation Administration, New England Region Airports Division, 12 New England Executive Park, Burlington, MA 01803. Comments on the proposed noise compatibility program should also be submitted to the above office.

**SUPPLEMENTARY INFORMATION:** This notice announces that the FAA is reviewing a proposed noise compatibility program for Burlington International Airport which will be approved or disapproved on or before October 20, 2008. This notice also announces the availability of this program for public review and comment.

An airport operator who has submitted noise exposure maps that are found by FAA to be in compliance with the requirements of Federal Aviation Regulations (FAR) Part 150, promulgated pursuant to the Act, may submit a noise compatibility program for FAA approval which sets forth the measures the operator has taken or proposes to reduce existing non-compatible uses and prevent the introduction of additional non-compatible uses.

The FAA has formally received the noise compatibility program for Burlington International Airport, effective on April 23, 2008. The airport operator has requested that the FAA review this material and that the noise mitigation measures, to be implemented jointly by the airport and surrounding communities, be approved as a noise compatibility program under section 47504 of the Act. Preliminary review of the submitted material indicates that it conforms to FAR Part 150 requirements for the submittal of noise compatibility programs, but that further review will be necessary prior to approval or disapproval of the program. The formal review period, limited by law to a maximum of 180 days, will be completed on or before October 20, 2008.

The FAA's detailed evaluation will be conducted under the provisions of 14 CFR Part 150, section 150.33. The primary considerations in the evaluation process are whether the proposed measures may reduce the level of aviation safety or create an undue burden on interstate or foreign commerce, and whether they are reasonably consistent with obtaining the goal of reducing existing non-compatible land uses and preventing the introduction of additional non-compatible land uses.

Interested persons are invited to comment on the proposed program with specific reference to these factors. All comments relating to these factors, other than those properly addressed to local land use authorities, will be considered by the FAA to the extent practicable. Copies of the noise exposure maps and the proposed noise compatibility program are available for examination at the following locations: FAA New England Region Airports Division, 12 New England Executive Park, Burlington, MA 01803; Burlington International Airport, Engineering Office, Room 295 Terminal Building, 1200 Airport Drive, South Burlington, VT 05403.

Questions may be directed to the individual named above under the heading: **FOR FURTHER INFORMATION CONTACT**.

Issued in Burlington Massachusetts, April 23, 2008.

**LaVerne F. Reid,**

*Manager, Airports Division, New England Region.*

[FR Doc. E8–9618 Filed 5–1–08; 8:45 am]

**BILLING CODE 4910–13–M**

## DEPARTMENT OF TRANSPORTATION

### Federal Highway Administration

### Notice of Final Federal Agency Actions on Proposed Highway in Ohio

**AGENCY:** Federal Highway Administration (FHWA), DOT.

**ACTION:** Notice of Limitation on Claims for Judicial Review of Actions by FHWA, Army Corps of Engineers (USACE), and Other Federal Agencies.

**SUMMARY:** This notice announces actions taken by the FHWA, USACE, and other Federal agencies that are final within the meaning of 23 U.S.C. 139(l)(1). The actions relate to a proposed highway project, U.S. Route 33, from Haydenville in Hocking County to Doanville (just west of New Floodwood) in Athens County in the State of Ohio. Those actions grant licenses, permits, and approvals for the project.

**DATES:** By this notice, the FHWA is advising the public of final agency actions subject to 23 U.S.C. 139(l)(1). A claim seeking judicial review of the Federal agency actions on the highway project will be barred unless the claim is filed on or before November 3, 2008. If the Federal law that authorizes judicial review of a claim provides a time period of less than 180 days for filing such claim, then that shorter time period still applies.

**FOR FURTHER INFORMATION CONTACT:** For FHWA: Mr. David Snyder, Environmental Program Manager, Federal Highway Administration, 200 North High Street, Columbus, Ohio, 43215; Telephone: (614) 280–6852; e-mail: *David.Snyder@fhwa.dot.gov;* FHWA Ohio Division Office's normal business hours are 8 a.m. to 4:30 p.m. (eastern time) Monday thru Friday. For USACE: Ms. Deborah Wegmann, Program Manager, Ohio Regulatory Transportation Office (ORTO), 3990 East Broad Street, Columbus, Ohio 43218; telephone (614) 692–4660; E-mail *deborah.wegmann@lrh01.usace.army.mil.* USACE–ORTO's normal business hours are 8 a.m. to 5 p.m. eastern time Monday thru Friday. For the Ohio Department of Transportation: Mr. Timothy Hill, Office of Environmental Services Administrator, Ohio Department of Transportation, 1980 West Broad Street, Columbus, Ohio, 43223; Telephone: (614) 644–0377; E-mail *tim.hill@dot.state.oh.us.* ODOT's normal business hours are 7:30 a.m. to 4 p.m. (eastern time) Monday thru Friday.

**SUPPLEMENTARY INFORMATION:** On February 1, 2006, the FHWA published a ''Notice of Final Federal Agency Actions on Proposed Highway in Ohio'' in the **Federal Register** at [DCOID: fr01fe06–175] for the following highway project: U.S. Route 33, from Haydenville in Hocking County to Doanville in Athens County in the State of Ohio. The project will be a 9 mile long, four-lane divided controlled access highway. It will begin northwest of Nelsonville adjacent to Haydenville. It will then

proceed in a northeasterly direction north of Nelsonville and south of Buchtel. It will end at Doanville which is located just northwest of New Floodwood, tying back into the existing 4-lane divided U.S. Route 33 approximately 1.2 miles east of SR691. The proposed highway will be on new alignment. The general purpose of the project is to provide system linkage, improve level of service and facility deficiencies including providing limited access and separating local and through traffic, improve safety, and enhance economic development opportunities.

The FHWA project reference number is FHWA–OH–EIS–04–01–F. A Final Environmental Impact Statement (FEIS) was approved by FHWA on June 30, 2005. A Record of Decision was issued by FHWA on August 19, 2005.

Notice is hereby given that, subsequent to the earlier FHWA notice, the USACE has taken final agency actions within the meaning of 23 U.S.C.139(l)(1) by issuing permits and approvals for the highway project. The actions by the USACE, related final actions by other Federal agencies, and the laws under which such actions were taken, are described in the USACE decisions and its project records, referenced as USACE Permit Number 200301193. That information is available by contacting the USACE at the address provided above.

Information about the project and project records also are available from the FHWA and the ODOT at the addresses provided above. The FHWA FEIS and ROD and the USACE permit can be viewed at the Nelsonville Public Library, the Athens and Hocking County Engineer's offices, the Athens and Hocking County Commissioners' offices, the Nelsonville City Manager's office, and the Hocking College President's office.

This notice applies to all Federal agency decisions as of the issuance date of this notice and all laws under which such actions were taken, including but not limited to:

1. Wetlands and Water Resources: Clean Water Act, 33 U.S.C. 1251–1377 (Section 404, Section 401, Section 319);

(Catalog of Federal Domestic Assistance Program Number 20.205, Highway Planning and Construction. The regulations implementing Executive Order 12372 regarding intergovernmental consultation on Federal programs and activities apply to this program)

**Authority:** 23 U.S.C.139(l)(1).

Issued on: April 29, 2008.

**Dennis Decker,**

*Division Administrator, Columbus, Ohio.*

[FR Doc. E8–9880 Filed 5–5–08; 8:45 am]

**BILLING CODE 4910–RY–P**

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## DEPARTMENT OF TRANSPORTATION

### Federal Highway Administration

**[Docket No. FHWA–2008–0060]**

### Agency Information Collection Activities: Notice of Request for Extension of Currently Approved Information Collection

**AGENCY:** Federal Highway Administration (FHWA), DOT.

**ACTION:** Notice and request for comments.

**SUMMARY:** The FHWA has forwarded the information collection request described in this notice to the Office of Management and Budget (OMB) to renew an information collection. We published a **Federal Register** Notice with a 60-day public comment period on this information collection on February 27, 2008. The FHWA invites public comments about our intention to request the Office of Management and Budget's (OMB) approval for a clearance renewal for an existing information collection that involves generic customer satisfaction surveys. We are required to publish this notice in the **Federal Register** by the Paperwork Reduction Act of 1995.

**DATES:** Please submit comments by June 5, 2008.

**ADDRESSES:** You may submit comments identified by DOT DMS Docket Number FHWA–2008–0060 by any of the following methods:

*Web Site: http://dms.dot.gov.* Follow the instructions for submitting comments on the Department of Transportation Docket Management System electronic docket site.

*Fax:* 1–202–493–2251.

*Mail:* Docket Management Facility, U.S. Department of Transportation, 1200 New Jersey Avenue, SE., West Building Ground Floor, Room W12–140, Washington, DC 20590.

*Hand Delivery:* U.S. Department of Transportation, 1200 New Jersey Avenue, SE., West Building Ground Floor, Room W12–140, Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

*Docket:* For access to the docket to read background documents or comments received, go to *http://dms.dot.gov* at any time or to U.S. Department of Transportation, 1200 New Jersey Avenue, SE., Washington, DC 20590, between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

**FOR FURTHER INFORMATION CONTACT:** James Lunetta, 703–235–0262, Office of Professional and Corporate Development, Federal Highway Administration, Department of Transportation, 4600 North Fairfax Drive, Suite 800, Arlington, VA 22203. Office hours are from 7:30 a.m. to 5 p.m., Monday through Friday, except Federal holidays.

**SUPPLEMENTARY INFORMATION:**

*Title:* Customer Satisfaction Surveys.

*Background:* Executive Order 12862, ''Setting Customer Service Standards'' requires that Federal agencies provide the highest quality service to our customers by identifying them and determining what they think about our services and products. The surveys covered in the existing generic clearance will provide the FHWA a means to gather this data directly from our customers. The information obtained from the surveys will be used to assist in evaluating service delivery and processes. The responses to the surveys will be voluntary and will not involve information that is required by regulations. There will be no direct costs to the respondents other than their time. The FHWA plans to provide an electronic means for responding to the majority of the surveys via the World Wide Web.

*Respondents:* State and local governments, highway industry organizations, general public.

*Frequency:* Generally, on an annual basis.

*Estimated Average Burden per Response:* The burden hours per response will vary with each survey; however, we estimate an average burden of 15 minutes for each survey.

*Estimated Total Annual Burden Hours:* We estimate that FHWA will survey approximately 174,000 respondents annually during the next three years. Therefore, the estimated total annual burden is 20,000 hours.

*Public Comments Invited:* You are asked to comment on any aspect of this information collection, including: (1) Whether the proposed collection is necessary for the FHWA's performance; (2) the accuracy of the estimated burden; (3) ways for the FHWA to enhance the quality, usefulness, and clarity of the collected information; and (4) ways that the burden could be minimized, including the use of computer technology, without reducing the quality of the collected information.

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; and 49 CFR 1.48.

**James R. Kabel,**

*Chief, Management Programs and Analysis Division.*

[FR Doc. E8–9860 Filed 5–5–08; 8:45 am]

BILLING CODE 4910–22–P

## DEPARTMENT OF TRANSPORTATION

### Pipeline and Hazardous Materials Safety Administration

**[Docket No. PHMSA–2005–27954]**

### Pipeline Safety: Meeting of the Technical Pipeline Safety Standards Committee

**AGENCY:** Pipeline and Hazardous Materials Safety Administration (PHMSA), U.S. Department of Transportation (DOT).

**ACTION:** Notice of advisory committee meeting.

**SUMMARY:** This notice announces a public meeting of PHMSA's Technical Pipeline Safety Standards Committee (TPSSC). The committee will meet to vote on two proposed rules; (1) Standards for Increasing the Maximum Allowable Operating Pressure for Gas Transmission Pipelines and, (2) Pipeline Safety: Polyamide-11 (PA–11) Plastic Pipe Design Pressures.

**DATES:** The meeting will be held on Tuesday, June 10, 2008, from 1 p.m. to 5 p.m. EDT.

**ADDRESSES:** The Committee members will participate by telephone conference call. Members of the public may attend the meeting at the U.S. Department of Transportation, 1200 New Jersey Avenue, SE., East Building, 2nd Floor, Room E27 302, in Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** For additional information regarding this meeting, please contact Kay McIver at 202 366–0113, or by e-mail at *kay.mciver@dot.gov.*

**SUPPLEMENTARY INFORMATION:**

### I. Meeting Details

Members of the public may attend and make a statement during the meeting. If you plan to make a statement during the advisory committee meeting, please notify the names contact under **FOR FURTHER INFORMATION CONTACT** by May 30, 2008. Please note that the meeting's presiding officer may deny a nonscheduled request to make a statement and may also limit the time of any speaker.

*Privacy Act Statement:* Anyone may search the electronic form of all comments received for any of our dockets. You may review DOT's complete Privacy Act Statement in the **Federal Register** published on April 11, 2000 (65 FR 19477) or you may visit *http://dms.dot.gov.*

*Information on Services for Individuals with Disabilities:* For information on facilities or services for individuals with disabilities, or to request special assistance at the meeting, please contact Kay McIver at 202 366–0113 by May 30, 2008.

### II. Committee Background

The TPSSC is a statutorily mandated advisory committee that advises PHMSA on proposed safety standards, risks assessments, and safety policies for natural gas pipelines. The TPSSC was established under the Federal Advisory Committee Act (Pub. L. 92–463, 5 U.S.C. App. 1) and the pipeline safety law (49 U.S.C. Chap. 601). The committee consists of 15 members—with membership evenly divided among the Federal and State government, the regulated industry, and the general public. The TPSSC advises on technical feasibility, practicability, and cost-effectiveness of each proposed pipeline safety standard.

### III. Agenda

The agenda for the meeting will include discussions and votes on two notices of proposed rulemaking.

1: Standards for Increasing the Maximum Allowable Operating Pressure for Gas Transmission Pipelines. (73 FR 13167: Mar 12, 2008).

2: Pipeline Safety: Polyamide–11 (PA–11) Plastic Pipe Design Pressures. (73 FR 1307: Jan 8, 2008).

**Authority:** 49 U.S.C. 60102, 60115; 60118.

Issued in Washington, DC on April 30, 2008.

**Jeffrey D. Wiese,**

*Associate Administrator for Pipeline Safety.*

[FR Doc. E8–9930 Filed 5–5–08; 8:45 am]

BILLING CODE 4910–60–P

## DEPARTMENT OF TRANSPORTATION

### Pipeline and Hazardous Materials Safety Administration

**[Docket No. PHMSA–2007–28444 (PDA–32(R))]**

### Maine Department of Environmental Protection Requirements on Transportation of Cathode Ray Tubes

**AGENCY:** Pipeline and Hazardous Materials Safety Administration (PHMSA), DOT.

**ACTION:** Public notice and invitation to comment.

**SUMMARY:** Interested parties are invited to comment on an application by the Electronic Industries Alliance for an administrative determination as to whether Federal hazardous material transportation law preempts requirements of the Maine Department of Environmental Protection on the transportation of cathode ray tubes and glass removed from cathode ray tubes.

**DATES:** Comments received on or before June 20, 2008, and rebuttal comments received on or before August 4, 2008, will be considered before an administrative determination is issued by PHMSA's Chief Counsel. Rebuttal comments may discuss only those issues raised by comments received during the initial comment period and may not discuss new issues.

**ADDRESSES:** The application and all comments received may be reviewed in the Docket Operations Facility (M–30), U.S. Department of Transportation, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue, SE., Washington, DC 20590. The application and all comments are available on the U.S. Government Regulations.gov Web site: *http://www.regulations.gov.*

Comments must refer to Docket No. PHMSA–2007–28444 and may be submitted to the docket in writing or electronically. Mail or hand deliver three copies of each written comment to the above address. If you wish to receive confirmation of receipt of your comments, include a self-addressed, stamped postcard. To submit comments electronically, log onto the U.S. Government Regulations.gov Web site: *http://www.regulations.gov.* Use the Documents section of the home page and follow the instructions for submitting comments.

A copy of each comment must also be sent to (1) Aaron H. Goldberg, Esq., Beveridge & Diamond, 1350 I Street, NW., Suite 700, Washington, DC 20005–3311, counsel for the Electronic Industries Alliance, and (2) Ms. Stacy Ladner, Maine Department of

Environmental Protection, 17 State House Station, Augusta, ME 04333–0017. A certification that a copy has been sent to these persons must also be included with the comment. (The following format is suggested: ''I certify that copies of this comment have been sent to Mr. Goldberg and Ms. Ladner at the addresses specified in the **Federal Register**.'')

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 (70 FR 19477–78), or you may visit *http://www.dot.gov.*

A list and subject matter index of hazardous materials preemption cases, including all inconsistency rulings and preemption determinations, are available through the home page of PHMSA's Office of Chief Counsel, at *http://phmsa-atty.dot.gov.* A paper copy of this list and index will be provided at no cost upon request to Mr. Hilder, at the address and telephone number set forth in **FOR FURTHER INFORMATION CONTACT** below.

**FOR FURTHER INFORMATION CONTACT:** Frazer C. Hilder, Office of Chief Counsel, Pipeline and Hazardous Materials Safety Administration, U.S. Department of Transportation, Zone E26 (PHC–10), 1200 New Jersey Avenue, SE., Washington, DC 20590; telephone No. 202–366–4400; facsimile No. 202–366–7041.

**SUPPLEMENTARY INFORMATION:**

## I. Application for a Preemption Determination

The Electronic Industries Alliance (''Alliance'') has applied for a determination that Federal hazardous material transportation law, 49 U.S.C. 5101 *et seq.*, preempts certain requirements of the Maine Department of Environmental Protection (''MDEP'') on the transportation of cathode ray tubes (''CRTs'') and glass removed from CRTs (''CRT glass'') destined for reuse, repair, or recycling. The Alliance states that, under regulations of the Environmental Protection Agency (EPA), these CRTs and CRT glass are not considered ''solid wastes'' and, because a Uniform Hazardous Waste Manifest is not required, are not classified as ''hazardous wastes'' under the HMR. *See* 49 CFR 171.8 (definition of ''hazardous waste'' for purposes of the HMR).

In its application, the Alliance refers to EPA's recent rulemaking on ''Modification of the Hazardous Waste Program; Cathode Ray Tubes,'' in which EPA explained that CRTs are ''vacuum tubes, made primarily of glass, which constitute the video display components of televisions and computer monitors'' as well as other ''medical, automotive [and] oscilloscope'' appliances. Notice of Proposed Rulemaking, 67 FR 40508, 40509 (June 12, 2002). ''CRTs are built of a specialized glass that often contains lead.'' *Id.* EPA explained that, in general, black and white monitors (or ''monochrome CRTs'') do not have sufficient lead to meet the toxicity characteristic for a hazardous waste under EPA's regulations, but the more ''significant quantities of lead [used] to make color cathode ray tubes'' exceed the ''toxicity characteristic regulatory level of 5 milligrams per liter that is used to classify lead-containing wastes as hazardous (40 CFR 261.24(b)).'' 67 FR at 40510.

EPA's July 28, 2006 final rule, which became effective on January 29, 2007, did not affect the existing exemptions from Federal hazardous waste management requirements for ''CRTs from households'' (*see* 40 CFR 261.4(b)(1)) and ''[n]on-residential generators of less than 100 kilograms (about 220 pounds) of hazardous waste in a calendar month'' who meet the conditions in 40 CFR 261.5. 71 FR 42928, 42929. EPA also stated that the rule did not affect ''persons who send unused CRTs for recycling [who] are not subject to RCRA regulations'' because ''EPA does not regulate unused commercial chemical products that are reclaimed.'' *Id. See also* the discussion at 67 FR at 40511. EPA has provided that, unless used CRTs or CRT glass are being disposed or speculatively accumulated (as defined in 40 CFR 261.1(c)(8)), none of the following are solid or hazardous wastes:

—Used, intact CRTs sent for recycling within the United States. 40 CFR 261.4(a)(22)(i). If exported for recycling, the exporter must notify the receiving country through EPA; the receiving country must consent to the intended export; and an Acknowledgement of Consent to Export CRTs must accompany the shipment. 40 CFR 261.4(a)(22)(ii), 261.40.

—Used, broken CRTs sent for recycling within the United States which are transported in a container (including a vehicle) constructed, filled, and closed to minimize releases of CRT glass to the environment. The container must be labeled ''Do not mix with other glass materials'' and one of the following: ''Used cathode ray tube(s)-contains leaded glass'' or ''Leaded glass from televisions or computers.'' 40 CFR 261.4(a)(22)(iii), 261.39(a)(1)–(4). If these materials are exported for recycling, the exporter must notify the receiving country through EPA; the receiving country must consent to the intended export; and an Acknowledgement of Consent to Export CRTs must accompany the shipment. 40 CFR 261.39(a)(5).

—CRT glass destined for recycling at a CRT glass manufacturer or a lead smelter after processing. 40 CFR 261.4(a)(22)(iv), 261.39(c).

EPA also stated in the preamble to its July 28, 2006 final rule that states which are authorized under ''section 3006 of RCRA [42 U.S.C. 6926] * * * to administer and enforce a hazardous waste program within the state in lieu of the federal program * * * are not required to adopt federal regulations * * * that are considered less stringent than previous federal regulations.'' 71 FR at 41943. Accordingly, ''States currently regulating CRTs as hazardous waste, including under the universal waste rule, would not have to amend their programs, since their programs are more stringent than the federal requirements.'' *Id.* at 41944. EPA discussed scenarios ''when used CRTs or processed CRT glass [are] transported to and from states with different regulations governing these wastes.'' *Id.* It stated that:

—If a CRT or CRT glass is outside the ''definition of solid waste in the state where it is generated'' but being transported to a state which regulates these materials as hazardous waste, a manifest is not required and the transporter need not have an EPA identification number

for the portion of the trip through the originating state, and any other states where the waste is excluded. * * * However, for the portion of the trip through the receiving state, and any other states that do not consider the waste to be excluded, the transporter must have a manifest, except as provided by the universal waste rules, and must move the waste in compliance with 40 CFR Part 263.

*Id.*

—Conversely, if a CRT or CRT glass is regulated as hazardous waste in the generator's state and shipped to a state where it is excluded from the definition of solid waste,

the material must be moved by a hazardous waste transporter, while the material is in the generator's state or any other states where it is not excluded, except as provided by the universal waste rules. The initiating facility would complete a manifest and give copies to the transporter as required under 40 CFR 262.23(a). Transportation within the receiving state and any other states that exclude the material would not require a manifest and need not be transported by a hazardous waste transporter. However, it is the initiating facility's responsibility to ensure that the manifest is forwarded to the

receiving facility by the transporter and sent back to the initiating facility by the receiving facility (see 40 CFR 262.23 and 262.41).

*Id.*

On October 25, 2006, the Alliance (which previously submitted comments in EPA's rulemaking proceeding) petitioned the United States Court of Appeals for the District of Columbia for review of EPA's July 28, 2006 final rule. *Electronic Industries Alliance* v. *U.S. Environmental Protection Agency,* Case No. 06–1359. In its Preliminary and Non-Binding Statement of Issues, the Alliance stated that the issues to be raised in this case include ''[w]hether EPA's determination on transport of CRTs and CRT glass within and between states was contrary to the Hazardous Materials Transportation Act ('HMTA') and its implementing regulations, which provide that federal requirements for transport of hazardous materials, including hazardous wastes, generally preempt state requirements that differ.'' On May 18, 2007, that Court granted the Alliance's motion to hold the case in abeyance pending further order of the Court and directed the parties ''to file motions to govern future proceedings in this case within 30 days of the completion of the Department of Transportation's proceedings'' on the Alliance's application for a preemption determination.

In summary, the Alliance's application challenges MDEP's requirements for (1) Classification of CRTs, under which ''whole, intact, and unbroken'' CRTs are classified as ''universal waste'' and broken CRTs and CRT glass are classified as ''hazardous wastes''; (2) a manifest or other shipping paper, (3) specific marking or labeling of shipping containers, and (4) a transporter to obtain a license to transport broken CRTs and CRT glass as ''hazardous wastes'' or meet other conditions (without needing to obtain a license) to transport intact CRTs as ''universal waste.'' Two of these conditions are discussed in the Alliance's application: the transporter must maintain liability insurance in an ''appropriate'' amount (with specified minimums), and the transporter must have a plan (kept on the vehicle) for the cleanup of any discharge.

Appendix A to this notice sets forth the text of the Alliance's application, a list of the 21 attachments to the application, and Attachment No. 1 showing in chart form the requirements the Alliance contends are preempted. The complete application including all attachments is available in the Docket Operations Facility (M–30), U.S. Department of Transportation, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue, SE., Washington, DC 20590, and at the U.S. Government Regulations.gov Web site: *http://www.regulations.gov.* A copy of the Alliance's comments in the EPA rulemaking, its petition for review in the Court of Appeals, its motion to hold the case in abeyance, and the Court's May 18, 2007 Order are also in the electronic docket of this matter and available on-line.

## II. Federal Preemption

Section 5125 of 49 U.S.C. contains express preemption provisions relevant to this proceeding. As amended by Section 1711(b) of the Homeland Security Act of 2002 (Pub. L. 107–296, 116 Stat. 2320), 49 U.S.C. 5125(a) provides that a requirement of a state, political subdivision of a state, or Indian tribe is preempted—unless the non-Federal requirement is authorized by another Federal law or DOT grants a waiver of preemption under § 5125(e)—if

(1) Complying with a requirement of the State, political subdivision, or tribe and a requirement of this chapter, a regulation prescribed under this chapter, or a hazardous materials transportation security regulation or directive issued by the Secretary of Homeland Security is not possible; or

(2) The requirement of the State, political subdivision, or tribe, as applied or enforced, is an obstacle to accomplishing and carrying out this chapter, a regulation prescribed under this chapter, or a hazardous materials transportation security regulation or directive issued by the Secretary of Homeland Security.

These two paragraphs set forth the ''dual compliance'' and ''obstacle'' criteria that PHMSA's predecessor agency, the Research and Special Programs Administration (RSPA), had applied in issuing inconsistency rulings (IRs) prior to 1990, under the original preemption provision in the Hazardous Materials Transportation Act (HMTA). Pub. L. 93–633 § 112(a), 88 Stat. 2161 (1975). The dual compliance and obstacle criteria are based on U.S. Supreme Court decisions on preemption. *Hines* v. *Davidowitz,* 312 U.S. 52 (1941); *Florida Lime & Avocado Growers, Inc.* v. *Paul,* 373 U.S. 132 (1963); *Ray* v. *Atlantic Richfield, Inc.,* 435 U.S. 151 (1978).

Subsection (b)(1) of 49 U.S.C. 5125 provides a non-Federal requirement concerning any of the following subjects is preempted—unless authorized by another Federal law or DOT grants a waiver of preemption—when the non-Federal requirement is not ''substantively the same as'' a provision of Federal hazardous material transportation law, a regulation prescribed under that law, or a hazardous materials security regulation or directive issued by DHS:

(A) The designation, description, and classification of hazardous material.

(B) The packing, repacking, handling, labeling, marking, and placarding of hazardous material.

(C) The preparation, execution, and use of shipping documents related to hazardous material and requirements related to the number, contents, and placement of those documents.

(D) The written notification, recording, and reporting of the unintentional release in transportation of hazardous material.

(E) The designing, manufacturing, fabricating, inspecting, marking, maintaining, reconditioning, repairing, or testing a package, container, or packaging component that is represented, marked, certified, or sold as qualified for use in transporting hazardous material.[1]

To be ''substantively the same,'' the non-Federal requirement must conform ''in every significant respect to the Federal requirement. Editorial and other similar *de minimis* changes are permitted.'' 49 CFR 107.202(d).[2]

The 2002 amendments and 2005 reenactment of the preemption provisions in 49 U.S.C. 5125 reaffirmed Congress's long-standing view that a single body of uniform Federal regulations promotes safety (including security) in the transportation of hazardous materials. More than thirty years ago, when it was considering the HMTA, the Senate Commerce Committee ''endorse[d] the principle of preemption in order to preclude a multiplicity of State and local regulations and the potential for varying as well as conflicting regulations in the area of hazardous materials transportation.'' S. Rep. No. 1102, 93rd Cong. 2nd Sess. 37 (1974). When Congress expanded the preemption provisions in 1990, it specifically found:

(3) Many States and localities have enacted laws and regulations which vary from Federal laws and regulations pertaining to the transportation of hazardous materials, thereby creating the potential for unreasonable hazards in other jurisdictions

[1] Subparagraph (E) was editorially revised in Sec. 7122(a) of the Hazardous Materials Transportation Safety and Security Reauthorization Act of 2005, which is Title VII of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA–LU), Pub. L. 109–59, 119. Stat. 1891 (Aug. 10, 2005).

[2] Additional standards apply to preemption of non-Federal requirements on highway routes over which hazardous materials may or may not be transported and fees related to transporting hazardous material. *See* 49 U.S.C. 5125(c) and (f). *See also* 49 CFR 171.1(f) which explains that a ''facility at which functions regulated under the HMR are performed may be subject to applicable laws and regulations of state and local governments and Indian tribes.''

and confounding shippers and carriers which attempt to comply with multiple and conflicting registration, permitting, routing, notification, and other regulatory requirements,

(4) Because of the potential risks to life, property, and the environment posed by unintentional releases of hazardous materials, consistency in laws and regulations governing the transportation of hazardous materials is necessary and desirable,

(5) In order to achieve greater uniformity and to promote the public health, welfare, and safety at all levels, Federal standards for regulating the transportation of hazardous materials in intrastate, interstate, and foreign commerce are necessary and desirable.

Pub. L. 101–615 § 2, 104 Stat. 3244. (In 1994, Congress revised, codified and enacted the HMTA ''without substantive change,'' at 49 U.S.C. Chapter 51. Pub. L. 103–272, 108 Stat. 745 (July 5, 1994).) A United States Court of Appeals has found uniformity was the ''linchpin'' in the design of the Federal laws governing the transportation of hazardous materials. *Colorado Pub. Util. Comm'n* v. *Harmon,* 951 F.2d 1571, 1575 (10th Cir. 1991).

**III. Preemption Determinations**

Under 49 U.S.C. 5125(d)(1), any person (including a state, political subdivision of a state, or Indian tribe) directly affected by a requirement of a State, political subdivision or tribe may apply to the Secretary of Transportation for a determination whether the requirement is preempted. The Secretary of Transportation has delegated authority to PHMSA to make determinations of preemption, except for those concerning highway routing (which have been delegated to the Federal Motor Carrier Safety Administration). 49 CFR 1.53(b).

Section 5125(d)(1) requires notice of an application for a preemption determination to be published in the **Federal Register**. Following the receipt and consideration of written comments, PHMSA publishes its determination in the **Federal Register**. *See* 49 CFR 107.209(c). A short period of time is allowed for filing of petitions for reconsideration. 49 CFR 107.211. A petition for judicial review of a final preemption determination must be filed in the United States Court of Appeals for the District of Columbia or in the Court of Appeals for the United States for the circuit in which the petitioner resides or has its principal place of business, within 60 days after the determination becomes final. 49 U.S.C. 5127(a).

Preemption determinations do not address issues of preemption arising under the Commerce Clause, the Fifth Amendment or other provisions of the Constitution, or statutes other than the Federal hazardous material transportation law unless it is necessary to do so in order to determine whether a requirement is authorized by another Federal law, or whether a fee is ''fair'' within the meaning of 49 U.S.C. 5125(f)(1). A state, local or Indian tribe requirement is not authorized by another Federal law merely because it is not preempted by another Federal statute. *Colorado Pub. Util. Comm'n* v. *Harmon,* above, 951 F.2d at 1581 n.10.

In making preemption determinations under 49 U.S.C. 5125(d), PHMSA is guided by the principles and policies set forth in Executive Order No. 13132, entitled ''Federalism.'' 64 FR 43255 (Aug. 10, 1999). Section 4(a) of that Executive Order authorizes preemption of State laws only when a statute contains an express preemption provision, there is other clear evidence Congress intended to preempt state law, or the exercise of state authority directly conflicts with the exercise of Federal authority. Section 5125 contains express preemption provisions, which PHMSA has implemented through its regulations.

**IV. Public Comments**

All comments should be directed to whether 49 U.S.C. 5125 preempts the MDEP requirements concerning (1) The classification of CRTs and CRT glass for transportation for reuse or recycling, (2) a manifest or other shipping document to accompany shipments of CRTs and CRT glass for reuse or recycling, (3) marking or labeling containers of CRTs or CRT glass being transported for reuse or recycling, and (4) the license a transporter must obtain to transport broken CRTs and CRT glass or the other conditions a transporter must meet (without needing to obtain a license) to transport intact CRTs. Comments should set forth in detail the manner in which these requirements are applied and enforced with respect to shipments of CRTs (both used and unused) and CRT glass to, from, through, and within Maine.

Comments should specifically address whether—and, if so, the manner in which—the preemption criteria discussed in Part II, above, apply to materials which are not regulated as hazardous materials under the HMR, and whether the Maine requirements purport to classify or regulate CRTs or CRT glass as a ''hazardous material'' regulated under the HMR. In the preamble to a final rule on ''Infectious Substances,'' 60 FR 48780, 48784 (Sept. 20, 1995), RSPA stated that:

The HMR do not, however, preempt non-Federal requirements imposed on the transportation of materials that are not hazardous materials as defined in the HMR. One exception to this general principle, however, would be where a non-Federal law or regulation requires a method of hazard communication for non-hazardous materials sufficiently similar to that prescribed by the HMR for a hazardous material that the regulation is ''tantamount to the creation of an additional class of hazardous materials with its own marking requirements.'' 59 FR 6186, 6192 (Feb. 9, 1994) (preemption determination PD–6). Short of this type of circumstance (*de facto* classification of materials as hazardous materials), however, State, local and tribal regulation of materials that are not hazardous materials is not subject to preemption by the Federal hazmat law.

Compare PD–6(R), ''Michigan Marking Requirements for Vehicles Transporting Hazardous and Liquid Industrial Wastes,'' 59 FR at 6192 (a State requirement to mark ''licensed industrial waste hauling vehicle'' on each side of the vehicle is preempted), with PD–7(R), ''Maryland Certification Requirements for Transporters of Oil or Controlled Hazardous Substances,'' 59 FR 28913, 28914 (June 3, 1994) (''Operator requirements for the transport of oils that are not hazardous materials are not subject to preemption by the HMTA.'').

The existing regulatory scheme for use of the Uniform Hazardous Waste Manifest was developed by EPA and DOT in their coordinated final rules published in the **Federal Register** on March 20, 1984, 49 FR 10490, 10507. In the preamble to its final rule, EPA stated that:

The Uniform Hazardous Waste Manifest form has been designed to allow the listing of both federally-regulated wastes and wastes regulated solely by the States. In order to distinguish between federally-regulated wastes and other wastes, as required by DOT regulations (49 CFR 172.201(a)(1)), generators can add (or States may overprint on the form) a hazardous materials (HM) column in the space for the U.S. DOT Description. When a waste shipment consists of both federally regulated-materials and State-regulated wastes, the HM column, if added, must be checked or marked for only those line entries which are regulated under federal law as hazardous wastes or hazardous materials.

49 FR at 10495. As RSPA discussed in its August 8, 2001 notice of proposed rulemaking to revise requirements in the HMR regarding use of the Uniform Hazardous Waste Manifest, ''a generator may use the uniform manifest form for wastes regulated solely by a State, but a State may not 'impose enforcement sanctions on a transporter during transportation of the shipment for failure of the form to include preprinted

information or optional State information items.' 40 CFR 217.10(h)(2).'' 66 FR 41490, 41491.

In a May 9, 1996 interpretation letter addressing certain material regulated as a waste by the State of Utah, RSPA confirmed that the Uniform Hazardous Waste Manifest form ''was specifically designed to allow the listing of both federally regulated wastes and wastes solely regulated by a State,'' but that a State waste must not be described on the manifest in a manner that indicates or implies that the material is a DOT-regulated hazardous material. RSPA also explained in that letter (a copy of this letter has been placed in the public docket of this proceeding), that ''the word 'waste' may not precede the basic description for a DOT regulated hazardous material when the material is not an EPA hazardous waste'' because ''use of the word 'waste' preceding the basic description indicates that the material is a federally regulated waste.'' RSPA stated that,

> If the material is not subject to the HMR as a hazardous material or a federally regulated hazardous waste, ''Utah Regulated Only,'' ''non-RCRA waste'' or ''Utah only waste'' may be entered in ''block 11 of the UHWM document following the name used to identify State only regulated waste. ''Utah Hazardous waste, liquid or solid, n.o.s.'' is also an acceptable shipping name for a Utah regulated waste.

Accordingly, it is important for commenters to explain and address the specific manner in which MDEP regulates the transportation of CRTs and CRT glass.

Issued in Washington, DC on April 23, 2008.

**David E. Kunz,**

*Chief Counsel.*

## Appendix A

## Application of the Electronic Industries Alliance for a Determination That the Requirements for Transportation of Cathode Ray Tubes Issued by the Maine Department of Environmental Protection Are Preempted By the Federal Hazardous Materials Transportation Law

*May 8, 2007*

The Electronic Industries Alliance (''EIA'' or ''the Alliance'') hereby applies to the Chief Counsel of the Pipeline and Hazardous Materials Safety Administration (''PHMSA'') within the U.S. Department of Transportation (''DOT'' or ''the Department'') for a determination that certain requirements imposed by the Maine Department of Environmental Protection (''MDEP'') are preempted by the Federal Hazardous Materials Transportation Law (''Federal hazmat law'') and the Hazardous Materials Regulations (''HMR'').

In particular, EIA is seeking a preemption determination with respect to the Maine Hazardous Waste Management Regulations (''Maine Regulations'') to the extent that they impose requirements on the transportation of cathode ray tubes (''CRTs'') and glass removed from CRTs (''CRT glass'') that do not qualify as hazardous wastes or hazardous materials under the HMR and therefore are not subject to federal hazardous material transportation requirements.[1] This Application is being submitted pursuant to 49 U.S.C. 5125(d)(l) and 49 CFR 107.203.

### I. Introduction

The Maine Regulations impose stringent requirements on the transport of used CRTs and CRT glass, which vary depending upon whether the CRTs are broken or intact. *See generally* Section II below. Broken CRTs and CRT glass are subject to the full state requirements for transport of hazardous wastes, including hazardous waste manifesting, labeling/marking of the wastes, licensing of the transporters, and related transporter requirements (e.g., insurance and emergency response plans). Intact CRTs are subject to reduced ''universal waste'' requirements under the Maine Regulations. However, even under these requirements, intact CRTs must be transported with specific shipping papers, labels, and markings, and transporters must comply with a number of requirements (again including insurance and emergency response plan requirements).

In contrast, the HMR generally does not impose any requirements on the transport of CRTs and CRT glass (regardless of whether they are broken or intact). *See generally* Section III below. Such materials are not hazardous wastes under the HMR because they have been conditionally excluded from the definition of solid and hazardous waste by the U.S. Environmental Protection Agency (''EPA'' or the ''the Agency''), as long as they are destined for recycling. CRTs and CRT glass also do not meet any other criteria for classification as hazardous materials under the HMR and therefore generally are not subject to any requirements under the HMR.

Because the Maine Regulations impose requirements on the transport of CRTs and CRT glass that are not HMR-regulated, the state rules are subject to preemption. *See generally* Section IV below. The Federal hazmat law mandates that state requirements for shipping papers and marking/labeling be ''substantively the same'' as the HMR requirements. The Maine rules for CRTs and CRT glass do not meet this standard. The Federal hazmat law also requires that state rules for the designation and classification of hazardous materials must be ''substantively the same'' as the corresponding HMR rules. Because the Maine rules classify CRTs and CRT glass in a different way than the HMR, the state classification and all rules based on that classification are preempted. All of the Maine rules for CRTs and CRT glass are preempted in this way. They are also preempted because they cause confusion, interfere with the flow of trade, and otherwise serve as an obstacle to the purposes of the Federal hazmat law. These conclusions are not affected by the fact that EPA has ''authorized'' some of the Maine hazardous waste regulations for the purposes of another statute, because the state transport requirements for CRTs and CRT glass are not part of the authorized program and, in any event, preemption under the Federal hazmat law operates independently of any such authorization.

EIA represents a wide range of companies that are directly affected by the Maine Regulations at issue, because these companies manufacture, sell, or distribute CRTs, use CRTs, and collect/recycle used CRTs and/or CRT glass. *See generally* Section V below. Accordingly, EIA requests that DOT issue a determination that the Maine Regulations are preempted by the Federal hazmat law and the HMR to the extent that they impose requirements on the transport of CRTs and CRT glass that are not hazardous wastes or hazardous materials under the HMR. A summary of the key Maine requirements that are preempted and the reasons why such requirements are preempted is provided in Attachment 1.

### II. State Requirements for Which a Preemption Determination is Requested

Under the Maine Regulations, shipments of used CRTs and CRT glass are subject to a variety of state transportation requirements. As discussed below, such materials generally qualify as hazardous wastes under the MDEP rules, and those rules impose stringent requirements on the transportation of hazardous wastes. Accordingly, broken CRTs and CRT glass must be shipped in accordance

[1] A CRT is generally defined as ''a vacuum tube, composed primarily of glass, which is the visual or video display component of an electronic device,'' such as a television or computer monitor. *See,* e.g., 71 FR 42,928, 42,947 (July 28, 2006) (to be codified at 40 CFR 260.10).

with Maine's hazardous waste standards. The Maine Regulations designate intact CRTs as ''universal wastes'' which are not subject to the general rules for hazardous waste transport. However, the state regulations impose significant alternative requirements for transportation of such wastes. Each of these points is discussed separately below.

*A. Used CRTs and CRT Glass Generally Qualify as Hazardous Wastes Under the Maine Regulations*

The Maine Regulations define ''waste'' as ''any useless, unwanted or discarded substance or material, whether or not such substance or material has any other or future use * * * [including] materials which are used in a manner constituting disposal, burned for energy recovery, reclaimed or accumulated speculatively.'' *See* 06 096 Code Me. R. ch. 850, § 3(A)(2) (hereinafter, references to the Maine Regulations (''Me. Regs.'') will include only the chapter and section number within the title 06 096).[2] Used CRTs and CRT glass clearly can qualify as wastes under this definition. For example, if a user of CRT computer monitors decides to upgrade to flat-panel displays and ships the CRTs to a recycler for recovery of lead and/or glass, the CRTs clearly are ''unwanted'' materials sent to be ''reclaimed,'' and thus would be classified as wastes under the Maine Regulations.[3]

Used CRTs and CRT glass that qualify as wastes in Maine also generally qualify as hazardous wastes under the Maine Regulations. Under the Maine Regulations, a waste is defined as a hazardous waste if ''[i]t exhibits any of the characteristics of hazardous waste identified [by MDEP].'' *See* Me. Regs., ch. 850, § 3(A)(2)(a)(ii)c. One such characteristic is the characteristic of toxicity, which specifies that a waste is hazardous if, when tested using the Toxicity Characteristic Leaching Procedure (''TCLP''), it yields an extract that contains one or more hazardous constituents (e.g., lead) at levels above specified regulatory levels. *See* Me. Regs., ch. 850, § 3(B)(5). Color CRTs commonly exhibit the toxicity characteristic due to the fact that they contain substantial amounts of leachable lead. *See,* e.g., 71 FR at 42930 (''most color CRTs leach lead in the TCLP test at concentrations above the TC [toxicity characteristic] regulatory level'').[4] Accordingly, when such CRTs become wastes, they are also hazardous wastes. Similarly, because the leachable lead is contained primarily in the CRT glass,[5] when such glass becomes a waste, it also is subject to regulation as a hazardous waste in Maine. Monochrome CRTs generally do not exhibit the TC and thus are not hazardous wastes. *See,* e.g., 71 FR at 42931 (''black and white monitors do not generally fail the TC''). Therefore, this Application focuses on color CRTs. To avoid the need to distinguish continuously between color and monochrome CRTs, we generally use the term ''CRTs'' to refer only to CRTs that exhibit the TC (*i.e.,* color CRTs).

*B. The Maine Regulations Impose Numerous Stringent Requirements on Transportation of Hazardous Wastes*

Under the Maine Regulations, shipments of hazardous wastes generally are subject to a variety of stringent standards. The key requirements for hazardous waste transporters are set forth in Chapter 853, while the predominant shipping paper requirements are set forth in Chapter 857. Additional transport-related requirements for hazardous wastes are set forth in other parts of the Maine Regulations. *See, e.g.,* Me. Regs., ch. 851, §§ 7 and 8 (transportation and pretransportation requirements for hazardous waste generators). For purposes of the current discussion, we focus primarily on three sets of state hazardous waste transportation requirements: (1) The hazardous waste manifesting requirements, (2) the hazardous waste labeling/marking requirements, and (3) the licensing requirements for hazardous waste transporters.

1. Maine Hazardous Waste Manifesting Requirements

The Maine Regulations mandate that shipments of hazardous wastes must be accompanied by a Uniform Hazardous Waste Manifest (''Manifest''). *See, e.g.,* Me. Regs., ch. 857, § 8(A)(2) (''A transporter of hazardous waste shall * * * [e]nsure that [a] manifest accompanies the hazardous waste''). The state regulations include a number of Manifest-related requirements which apply to the generators of hazardous wastes, transporters, and owners and operators of hazardous waste facilities. *See generally* Me. Regs., ch. 857. Generators, for example, are required to prepare a Manifest for each shipment using the prescribed form and including specified information. *See* Me. Regs., ch. 857, §§ 5 and 7.[6] The generators also must keep a signed copy of the Manifest, send copies to the generating and receiving states, and provide the original and additional copies to the transporter. *See* Me. Regs., ch. 857, § 7(A). The transporter is required to keep the Manifest with the hazardous waste and obtain a signature from the receiving facility upon arrival. *See* Me. Regs., ch. 857, § 8(A). The transporter must keep a copy of this signed Manifest and provide the original and copies to the owner or operator of the receiving facility. *Id.* The owner/operator likewise must keep a copy of the completed Manifest and send copies to the generator, the generating state, and the destination state. *See* Me. Regs., ch. 857, § 9(A)(3). If the generator does not receive a completed Manifest from the owner/operator in a timely fashion, the generator must notify MDEP and/or take actions to resolve the situation. *See* Me. Regs., ch. 857, §§ 7(E)–(H).

[2] The full text of the relevant Maine Regulations, including all of the regulations cited by EIA in this document, is provided in Attachments 2 through 6. These and all other attachments are incorporated by reference as an integral part of this Application. The regulations are also readily available to the public online at *http://www.maine.gov/dep/rwm/rules/index.htm.*

[3] Recycling for recovery of lead and/or glass is a common method for managing used CRTs. *See,* e.g, 71 FR at 42929 (''Many CRTs that cannot be reused are sent for recycling, which consists of disassembly to recover valuable materials from the CRTs, such as lead or glass.''). CRTs recycled in this way are being ''reclaimed,'' as that term is used in the Maine definition of waste. *See* Me. Regs., ch. 850, 3(A)(2), Note (''It is intended that the term[] 'materials which are * * * reclaimed. * * *' should include all materials covered by [that term] in 40 CFR [Part] 261[ ]''); 40 CFR 26l.l(c)(4) (''A material is 'reclaimed' if it is processed to recover a usable product. * * * Examples [include] recovery of lead values from spent batteries.'').

[4] Even though the cited EPA statement regarding the characteristics of CRTs was made in the context of the federal TC, it applies with equal force under the Maine TC. The federal and state TCs use the same TCLP test. *Compare* 40 CFR 261.24 *with* Me. Reg., ch. 850, § 3(B)(5), Appendix II (incorporating the TCLP). The two TCs also use the same regulatory limits for lead and other metals. *Compare* 40 CFR 261.24, Table 1 *with* Me. Regs., ch. 850, § 3(B)(5), Table 1.

[5] *See* 71 FR at 42930 (''Manufacturers generally employ significant quantities of lead in the glass used to make color CTRs.'').

[6] The Maine Regulations specify that, at least in some cases, an MDEP-approved Manifest form must be utilized and ''all state-optional information required by the manifest form'' must be provided. *See* Me. Regs., ch. 857, § 5(C). EPA, however, has recently issued a new Manifest form which is intended to supersede all state Manifest forms, including Maine's, and does not provide for state-optional information to be included on the form. *See* 70 FR 10776, 10785 (March 4, 2005) (''all fields set out in this rule's revised form are mandatory. * * * When the revised form is in use * * * there will no longer be [state] optional fields''). MDEP has issued guidance directing generators to use the new federal Manifest form instead of the form previously approved for use in Maine. *See http://www.maine.gov/dep/rwm/hazardouswaste/guidanceuniform.htm* (copy provided in Attachment 7). However, MDEP has stated that when this form is used to ship CRTs, ''item counts of the waste must be supplied in Item 14 [of the form].'' *Id.*

2. Maine Hazardous Waste Labeling/Marking Requirements

The Maine Regulations also require that packages of hazardous wastes be labeled and marked in certain ways for transportation. *See* Me. Regs., ch. 851, § 8(A) (''Before a generator removes or allows the removal of hazardous waste from the site of its generation, he shall [comply with specified labeling and marking requirements]''); Me. Regs., ch. 853, § 8(G) (''A [transporter] shall not accept for transport or transport hazardous wastes which are unlabeled''). Some of the state labeling/marking requirements simply mandate compliance with any applicable provisions of the HMR. *See* Me. Regs., ch. 851, §§ 8(A)(2)–(3).[7] However, the MDEP rules go further and require that ''each container of 110 gallons or less used in [hazardous waste] transportation'' be marked with the words ''HAZARDOUS WASTE—Federal Law Prohibits Improper Disposal'' and related information (e.g., the name and address of the generator, the relevant Manifest number, and government contact information). *See* Me. Regs., ch. 851, § 8(A)(4).

3. Maine Hazardous Waste Transporter Licensing Requirements

Under the Maine Regulations, transporters of hazardous wastes are generally required to have a transporter license issued by MDEP. *See* Me. Regs., ch. 853, § 4(A)(l) (''No person shall * * * [f]unction as a [hazardous waste] transporter without a transporter license issued by the Department''); Me. Regs., ch. 851, § 7(A) (''A generator shall not offer hazardous waste in any quantity to a transporter who is not licensed by the State of Maine to transport hazardous waste nor shall he transport the waste himself without a transporter license.''). Hazardous waste transporters are also subject to a variety of substantive state requirements. *See generally* Me. Regs., ch. 853. For example, they must maintain liability insurance covering the licensed activity ''in an amount appropriate for [the] license activity and for the risk involved'' but in no case less than $500,000. *See* Me. Regs., ch. 853, §§ 5(B)(9) and 8(B). In addition, hazardous waste transporters must have ''a plan for the cleanup of discharges of [the] hazardous wastes which [they] transport[ ]'' and must keep a copy of the plan on each conveyance (e.g. truck). *See* Me. Regs., ch. 853, § 8(F).

[7] As discussed in Section III below, however, CRTs and CRT glass generally are not subject to any requirements of the HMR.

*C. Broken CRTs and CRT Glass Must Be Shipped in Accordance With the Maine Hazardous Waste Regulations*

Because used CRTs and CRT glass qualify as hazardous wastes in Maine, they generally must be shipped in accordance with the stringent hazardous waste transportation requirements described above. The Maine Regulations allow intact CRTs to be shipped under special ''universal waste'' provisions described in the following section, but such provisions do not apply to broken CRTs and CRT glass. The Maine Regulations specify that ''[u]niversal waste shipping requirements require that the waste be * * * [w]hole, intact, and unbroken.'' *See* Me. Regs., ch. 850, § 3(A)(13)(e)(xvii)a. Thus, broken CRTs are not eligible for shipment as universal wastes. Instead, they must be shipped in accordance with the general state requirements for hazardous wastes (e.g., with a Manifest). *See* Section II.B above. The same is true for CRT glass resulting from CRT breakage.

While there may be a narrow exception for small quantities of broken CRTs or CRT glass that result from accidental breakage,[8] it is clear that intentionally broken CRTs and large quantities of accidentally broken CRTs are not. Instead, assuming such CRTs are hazardous, they must be managed in accordance with the ordinary state requirements for hazardous wastes. *See* Me. Regs., ch. 850, § 3(A)(13)(viii). As discussed in Section II.B above, such requirements include manifesting, labeling/marking, and transporter licensing requirements.[9]

[8] The Maine Regulations state that ''waste and residues from incidental breakage [of universal wastes] may still be managed as a universal waste.'' *See* Me. Regs., ch. 850, § 3(A)(13)(e)(vii). Guidance issued by MDEP similarly states that ''[i]ncidental breakage often (10) or fewer * * * CRTs may still be handled as universal waste.'' *See* MDEP, ''Universal Waste Handbook'' (March 2007) (''Handbook'') at 8, provided in Attachment 8 (also available at *http://www.maine.gov/dep/rwm/hazardouswaste/pdf/uwhandbookmarch2007.pdf*). However, the use of the word ''handled'' in the guidance arguably suggests that accidentally broken CRTs cannot be transported as universal wastes, given that the regulations appear to defme handling to include only treatment, storage, and disposal. See Me. Regs., ch. 850, § 3(A)(2) (''the phrase 'treat, store, and/or dispose'' shall mean 'handle'''). Moreover, the MDEP guidance paraphrases the regulation by saying that ''[t]he total amount of broken * * * CRTs in storage may exceed ten (10) items provided no breakage event exceeds the incidental limits.'' *See* Handbook at 8 (emphasis added). On the other hand, the same guidance recognizes that incidental breakage may occur during transport. *Id.* (''If frequent breakage is occurring, the generator, facility *and transporter* should review their handling procedures and packing materials to ensure that they are adequate for the job'' (emphasis added)).

[9] Because small quantities of accidentally broken CRTs and CRT glass from such breakage may be regulated the same way as intact CRTs under the Maine Regulations (i.e., as universal wastes), see note 8 above, we intend all references to ''broken CRTs'' (in the context of the Maine Regulations) throughout the remainder of this Application to denote broken CRTs other than those (if any) that might be eligible for transport as universal wastes under the state rules. We intend all references to ''intact CRTs'' (in the context of the Maine Regulations) to denote intact CRTs and any broken CRTs that might be eligible for transport as universal wastes.

*D. The Maine Regulations Do Not Require Intact CRTs To Be Shipped as Hazardous Wastes, But Impose Alternative Transportation Requirements for Such Wastes*

The Maine Regulations classify intact CRTs as ''universal wastes.'' *See* Me. Regs., ch. 850, § 3(A)(13)(b)(i) (defining universal wastes to include CRTs); Section II.C above (noting that broken CRTs and CRT glass are generally not eligible for transportation as universal wastes). As such, intact CRTs are subject to somewhat less stringent state transportation requirements than other hazardous wastes.[10] Nonetheless, the transportation requirements for intact CRTs remain significant. We focus here on the same types of requirements discussed above for ''ordinary'' hazardous wastes: (1) Shipping paper requirements, (2) labeling/marking requirements, and (3) the requirements for transporters).[11]

1. Maine Universal Waste Shipping Paper Requirements

Under the Maine Regulations, intact CRTs are allowed to be shipped without a Manifest, but only if other specified shipping documents are utilized. *See* Me. Regs., ch. 857, § 6(B). The two sanctioned alternatives are Recyclable Hazardous Material Uniform Bills of

[10] The Handbook referenced in note 8 above provides a general guide to the Maine universal waste rule, including key excerpts of the rule. *See* Attachment 8.

[11] As discussed in Section III.A below, the federal rules do not classify' CRTs or CRT glass as universal wastes, but instead conditionally exclude such materials from the federal definition of solid and hazardous waste. Nevertheless, it is worth noting that the Maine universal waste requirements are considerably more onerous than the federal universal waste requirements (which apply to other materials, such as batteries, mercury-containing equipment, and light bulbs). *See generally* 40 CFR Part 273. For example, even though the Maine requirements for universal wastes dictate the use of specific shipping documents (as discussed below), the federal universal waste rule provides for much greater flexibility. In particular, under the federal regulations, some universal waste shipments do not require tracking, while others may be tracked without a shipping document (e.g., using logs or other records that do not accompany the shipments). *See* 40 CFR 273.19 (''A small quantity handler of universal waste is not required to keep records of shipments of universal waste.''), 273.39 (large quantity handlers of universal wastes must track their shipments, but can do so in several ways other than by use of shipping papers).

Lading (''UBOLs'') and log sheets. *Id.*[12] MDEP also can approve use of another form, on a case-by-case basis. Each option is discussed briefly below).[13]

The primary alternative shipping document is the UBOL, which is similar to a Manifest inasmuch as it requires similar information, requires use of a specific format, and is implemented in much the same manner as a Manifest. *See* Me. Regs., ch. 857, § 4 (incorporating by reference into the Maine Regulations the UBOL form approved by the Maine Board of Environmental Protection); Me. Regs., ch. 857, § 6(B) (stating that UBOLs are subject to the same administrative requirements as Manifests, including the requirements discussed above for generators, transporters, and owners and operators of hazardous waste facilities). A copy of the approved UBOL form is provided in Attachment 8 (Handbook) at Appendix H.

Another option, which is available only for central accumulation facilities sending universal wastes to an instate consolidation facility, is for a log sheet containing specified information to accompany the waste shipment. *See* Me. Regs., ch. 857, § 13(B).[14] The Maine Regulations do not require use of a specific log form, although certain data elements are mandatory (e.g., the name, address, and phone number of the generator (unless the generator of the waste was a household, in which case a notation of this fact is sufficient), the type and quantity of universal waste delivered, and the date of delivery). *See* Me. Regs., ch. 857, § 13(B)(4).[15] The consolidation facility receiving the wastes is required to ensure that the log sheets are accurately completed and to submit a quarterly waste tracking document in a format specified by MDEP. *See* Me. Regs., ch. 857, § 13(C)(2).[16]

The final option available is the use of an MDEP-approved alternative form. *See* Me. Regs., ch. 857, § 6(B) (''A person may transport universal wastes [using] an alternative form approved by the Department''); Handbook at 11 (''The Department on a case by case basis may approve alternative shipping documents for use''). As far as we are aware, no alternative forms for CRTs have been approved by MDEP.

2. Maine Universal Waste Labeling/Marking Requirements

Under the Maine Regulations, containers of intact CRTs must be marked during transportation with the words ''Waste Cathode Ray Tube.'' *See* Me. Regs., ch. 850, § 3(A)(13)(e)(xxii)e (marking requirement for intact CRTs); Me. Regs., ch. 853, § 11(L) (''[a] transporter shall not accept for transport or transport universal wastes which are unlabeled''). The containers also must be marked or labeled in accordance with any applicable requirements of the HMR. *See* Me. Regs., ch. 853, § 11(Q).

3. Maine Universal Waste Transporter Requirements

Under the Maine Regulations, transporters of universal wastes do not require transporter licenses, as long as they comply with certain state-imposed requirements. *See* Me. Regs., ch. 853, §§ 10(A) and 11. Many of the requirements for universal waste transporters are the same or similar to the requirements for hazardous waste transporters, as discussed in Section II.B.3 above. For example, universal waste transporters must maintain liability insurance coverage in an amount ''appropriate for the transporting of universal waste and the risk involved, but in no case less than $1,000,000 annual aggregate coverage.'' *See* Me. Regs., ch. 853, § 11(H). In addition, they must have a plan ''for the clean up of discharges of universal waste'' and must keep a copy of the plan on each conveyance. *See* Me. Regs., ch. 853, § 11(K).

## III. Federal Requirements Against Which the State Requirements Should Be Compared

Under the HMR, CRTs and CRT glass generally do not have to be shipped as hazardous wastes or, indeed, as hazardous materials. As discussed below, CRTs and CRT glass generally do not qualify as hazardous wastes under the HMR and therefore do not have to be transported in accordance with the HMR requirements applicable to hazardous wastes (*e.g.*, the Manifest requirements). Moreover, CRTs and CRT glass generally are not hazardous materials, and thus are not subject to other HMR requirements.

### *A. CRTs and CRT Glass Generally Are Not Hazardous Wastes Under the HMR*

Under the HMR, a ''hazardous waste'' is defined as ''any material that is subject to the Hazardous Waste Manifest Requirements of the U.S. Environmental Protection Agency specified in 40 CFR part 262.'' *See* 49 CFR 171.8. The referenced EPA requirements, in turn, require generators of hazardous wastes—as defined in the federal regulations at 40 CFR Part 261—to prepare and use a Manifest for all shipments of such wastes (with certain exceptions that are not relevant here). *See*, e.g., 40 CFR 262.20(a) (requiring a Manifest for shipments of hazardous wastes); 261.1(a) (''This part [Part 261] identifies those [materials] which are subject to regulation as hazardous wastes under part[ ] 262''). Thus, only materials that are hazardous wastes under Part 261 can qualify as hazardous wastes under the HMR.

CRTs and CRT glass generally are not hazardous wastes under Part 261. Hazardous wastes are defined under Part 261 as a subset of solid wastes. *See* 40 CFR 261.3. For the reasons set forth below, CRTs and CRT glass generally do not qualify as solid wastes:

• CRTs Destined for Use, Reuse, or Repair. EPA has stated that for purposes

[12] *See* also Me. Regs., ch. 850, § 3(A)(13)(e)(iii) (requiring generators to track universal wastes with a Manifest or UBOL, with certain limited exceptions which are discussed below); § 3(A)(13)(e)(xvii) (universal waste shipments must be ''[a]ccompanied by a [UBOL] or manifest (if applicable)''); § 3(A)(13)(e)(xviii) (generators of universal wastes must ''[c]omply with the [UBOL], manifest, or log requirements''); § 3(A)(13)(e)(xxi) a (log requirements for small universal waste generators); § 3(A)(13)(f)(i) (central accumulation facilities must track universal wastes ''via a manifest * * * via a [UBOL], or by a shipping log'').

[13] The universal waste shipping paper requirements discussed in this section and the other universal waste transport requirements discussed in Sections II.D.2 and II.D.3 below apply not only to used CRTs and CRT glass generated by institutions (e.g., business and government organizations) but also to CRTs and CRT glass generated by households. *See* Me. Regs., ch. 415, § 3(B)(1) (household electronic wastes, including CRTs, managed under the Maine collection and recycling program for such wastes must be transported in accordance with the Maine universal waste requirements), and ch. 850, § 3(A)(13)(d) (mixtures of household wastes and universal wastes must be managed as universal wastes).

[14] The Maine Regulations define a central accumulation facility to include ''(1) [a facility where] a generator consolidates its own universal wastes from the generator's multiple facilities; or (2) a licensed solid waste transfer station or recycling center where universal waste generators may take their universal wastes; or (3) a facility where less than 200 universal waste items are collected from generators that are serviced by the facility.'' *See* Me. Regs., ch. 850, § 3(A)(13)(a)(iii). A consolidation facility is defined as ''a facility where universal waste is consolidated and temporarily stored while awaiting shipment to a recycling, treatment or disposal facility.'' *See* Me. Regs., ch. 850, § 3(A)(13)(a)(v).

[15] Even though the Maine Regulations do not mandate the use of a particular form for logs, MDEP has issued guidance stating that central accumulation facilities ''must'' use particular forms developed for this purpose. *See* Handbook at 11, Paragraph (b)(ii); id. at 25–28 (the prescribed log forms).

[16] A log sheet also can be used to track shipments from a small universal waste generator to an instate central accumulation facility or an instate consolidation facility. *See* Me. Regs., ch. 857, § 13(A)(2). In these cases, however, the log sheet does not have to accompany the shipments. *Id.* (log sheets for these shipments can be completed ''upon the generator's arrival at the facility''). For these purposes, a small universal waste generator is defined as ''a person or entity that generates or accumulates on site no more than 200 universal waste items * * * at a time or in any given month. * * *'' *See* Me. Regs., ch. 850, § 3(A)(13)(a)(xiii).

of Part 261, CRTs destined for use, reuse, evaluation for potential reuse, or repair are generally ''considered to be products in use rather than solid wastes.'' *See* 71 FR at 42929. For example, ''repairs do not constitute waste management.'' *Id.*

• Unused CRTs Destined for Reclamation. According to EPA, ''unused CRTs [are] unused commercial chemical products [which] are not solid wastes when sent for reclamation.'' 67 FR 40508, 40,511 (June 12, 2002); see also 40 CFR § 261.2(c)(3) (listed commercial chemical products are not solid wastes when reclaimed); 50 FR 14216, 14219 (April 11, 1985) (un-listed commercial chemical products are likewise not solid wastes when reclaimed).

• Used, Intact CRTs Destined for Reclamation. Under Part 261, ''[u]sed, intact CRTs * * * are not solid wastes within the United States unless they are disposed, or unless they are speculatively accumulated * * * by CRT collectors or glass processors.'' *See* 71 FR at 42948 (to be codified at 40 CFR 261.4(a)(22)(i)) (effective January 29, 2007). Significantly, used, intact CRTs that are speculatively accumulated by a CRT user are not solid wastes under this rule. *Id.* Moreover, even if a CRT collector or CRT glass processor accumulates such CRTs speculatively, the CRTs will ''no longer [be] in this [speculative accumulation] category once they are removed from accumulation for recycling.'' *See* 40 CFR 261.l(c)(8) (definition of speculative accumulation). Thus, used, intact CRTs generally will not be solid wastes when being transported (unless they are being transported specifically for disposal).[17]

• Used, Broken CRTs Destined for Reclamation. Under Part 261, used, broken CRTs destined for recycling are not solid wastes if they meet certain requirements for storage and labeling, and if they are not speculatively accumulated or used in a manner constituting disposal. *See* 71 FR at 42948–49 (to be codified at 40 CFR 261.4(a)(22)(iii), 261.39(a)) (effective January 29, 2007). During transportation, the key requirements are that the used, broken CRTs must be placed in a container (i.e., package or vehicle) that minimizes releases and is labeled or marked with specified phrases (e.g., ''Used cathode ray tubes—contains leaded glass'' and ''Do not mix with other glass materials''). *Id.* (to be codified at 40 CFR 261 .39(a)(3)). As noted above, the speculative accumulation provision is generally not relevant while CRTs are being transported. Thus, used, broken CRTs that are properly contained and labeled will not be solid wastes during transportation, unless they are being sent for disposal or use constituting disposal.[18]

• CRT Glass. Under Part 261, ''[g]lass from used CRTs that is destined for recycling at a CR1 glass manufacturer or a lead smelter after processing is not a solid waste unless it is speculatively accumulated.'' *See* 71 FR at 42948–49 (to be codified at 40 CFR 261.4(a)(22)(iv), 261.39(c)) (effective January 29, 2007). As noted above, the speculative accumulation provision is generally not relevant while materials are being transported. Thus, processed CRT glass destined for the specified types of recycling will not be solid wastes during transportation. CRT glass sent for other types of recycling likewise will generally not be solid wastes if they are ''legitimately used or reused without reclamation as an effective substitute for a commercial product, or as an ingredient in an industrial process to make a product pursuant to 40 CFR 261.2(e)(1)(i) or (ii).'' Id. at 42936 (noting further that the regulatory exclusions for these materials do not apply if the CRT glass is speculatively accumulated or used in a manner constituting disposal).

For these reasons, CRTs and CRT glass generally will not be solid or hazardous wastes during transport under 40 CFR Part 261 and will not be subject to the manifest requirements of Part 262. Because the HMR defines hazardous wastes as materials that are subject to Part 262 manifest requirements, see 49 CFR 171.8, CRTs and CRT glass also generally will not be hazardous wastes for purposes of the HMR.[19]

*B. CRTs and CRT Glass That Are Not Hazardous Wastes Under the HMR Are Not Subject to Federal Manifesting or Other Requirements for Transport of Hazardous Wastes*

Under the HMR, Manifests are required only for shipments of hazardous wastes. *See* 49 CFR 172.205. Accordingly, to the extent that CRTs and CRT glass do not qualify as hazardous wastes under the HMR, as discussed above, they do not have to be shipped with Manifests. *See*, e.g., Letter from Charles E. Bells, Senior Transportation Specialist. Office of Hazardous Materials Standards, DOT, to Phil Stewart, The Dow Chemical Company (April 21, 2006) (where ''EPA does not require preparation of [a] manifest [for a material] * * * [the] material does not meet the definition of a hazardous waste in § 171.8, and the Department of Transportation does not require a manifest to be created''), provided in Attachment 9.

CRTs and CRT glass likewise are not subject to other HMR requirements that apply only to hazardous wastes. *See*, e.g., 49 CFR 171.16(a) (a detailed incident report is required when ''any quantity of hazardous waste has been discharged during transportation''); 172.101(b)(9) (''the proper shipping name for a hazardous waste * * * shall include the word 'Waste'''); 172.201(e) (''For a hazardous waste, the shipping paper copy must be retained for three years''); 172.301(a)(2) (non-bulk packagings of hazardous waste must be marked with the word ''waste'' and/or EPA-specified language (e.g., ''HAZARDOUS WASTE—Federal Law Prohibits Improper Disposal'')).

*C. CRTs and CRT Glass That Are Not Hazardous Wastes Under the HMR Generally Are Not Hazardous Materials for Any Other Reason*

For purposes of the HMR, hazardous materials are defined to include not only hazardous wastes, but also ''hazardous substances, ... marine pollutants, elevated temperature materials, materials designated as hazardous in the Hazardous Materials Table * * * and materials that meet the defining criteria for [any] hazard classes and divisions.'' *See* 49 CFR 171.8. As discussed below, CRTs and CRT glass do not fall within any of these other categories of hazardous materials. Thus, to the extent that CRTs and CRT glass do not qualify as hazardous wastes under the HMR, they also are not hazardous materials.

[17] If the used, intact CRTs are exported for reclamation, they must not only not be speculatively accumulated, but also must meet certain notice and consent requirements in order to be excluded from the federal definitions of solid and hazardous wastes. *See* 71 FR at 42948–49 (to be codified at 40 CFR 261.4(a)(22)(ii), 261.40) (effective January 29, 2007). For example, the exporter must notify EPA of the intended export and refrain from initiating the export unless and until the Agency sends back an acknowledgement that the receiving country has consented to the export. *Id.* (to be codified at 40 CFR 261.39(a)(5)). Copies of the acknowledgement must accompany the shipment and must be retained by the exporter. *Id* (to be codified at 40 CFR 261.39(a)(5)(vii), (ix)).

[18] If the used, broken CRTs are exported for reclamation, they must also comply with the notice and consent requirements discussed in note 17 above. *See* 71 FR at 42948–49 (to be codified at 40 CFR 261.39(a)(5)) (effective January 29, 2007).

[19] CRTs and CRT glass may be hazardous wastes to the extent that they are destined for disposal or destined for recycling without meeting the requirements of the EPA exclusions discussed above (*e.g.*, if they are used, intact CRTs destined for reclamation, but are not properly contained and labeled). This Application, however, is focused on CRTs and CRT glass that have been excluded from the federal definition of hazardous waste.

During the development of EPA's current regulatory exclusions for CRTs and CRT glass, as discussed above, the Agency consulted with a senior DOT official about the HMR status of these materials, and was informed that the only way they may be hazardous materials is if they are hazardous wastes. According to EPA:

> John Gale, DOT [currently Chief of Standards Development in the DOT Office of Hazardous Materials Standards], confirmed that the [CRT] materials we are discussing are not individually listed as DOT hazardous materials and thus currently are hazardous materials only if they are hazardous waste, which for DOT's hazardous materials purposes is defined as anything requiring a manifest. Thus, if [as is now the case] the streamlined system [of EPA exclusions] does not require a manifest, these materials will not be hazardous materials and will not be subject to the DOT hazardous material regulations.

*See* EPA, ''Notes from 4/24/98 CRT Project Team Conference Call on Transportation/Packaging Issue'' (April 28, 1998) (''CRT Project Team Notes'') at 1, provided in Attachment 10.

DOT's conclusions are clearly supported by the Department's regulations. CRTs and CRT glass are not specifically listed as hazardous materials in the Hazardous Materials Table. *See* 49 CFR 172.101, Table. Although that Table does include listings for some specific lead compounds (e.g, lead azide, lead cyanide, and lead nitrate) and a generic listing for ''Lead compounds, soluble, n.o.s.,'' to our knowledge the lead in the CRTs and CRT glass is not in the form of any of the listed compounds and is not ''soluble'' in water. *See* Letter from Delmer F. Billings, Chief, Regulations Development, Office of Hazardous Materials Standards, DOT, to Ursula Judenhofer, BARLOCHER GmbH (August 8, 1997) (''DOT Lead Letter'') (''the term 'soluble' as used in the HMR means soluble in water''), provided in Attachment 11. Moreover, the generic ''n.o.s.'' listing does not apply because CRTs and CRT glass do not meet the definition of Division 6.1 (poisonous) materials. *See* Letter from John A. Gale, Chief, Standards Development, Office of Hazardous Materials Standards, DOT, to James Bandstra, Environmental Manager, Hammond Group, Inc. (July 13, 2004) (''The shipping name 'Lead compounds, soluble, n.o.s.' may not be used for a material that does not meet the criteria for a Division 6.1 material as specified in § 173.132 of the HMR''), provided in Attachment 12. Indeed, the materials do not appear to meet the definition of any of the HMR hazard classes or divisions. *See* 49 CFR Part 173, Subparts C, D, and I.

CRTs and CRT glass are not marine pollutants for much the same reason. *See* 49 CFR 172.101, Appendix B (List of Marine Pollutants) (listing several specific lead compounds and ''Lead compounds, soluble, n.o.s.''). In addition, these materials are not elevated temperature materials, because they are transported at ambient temperatures. *See* 49 CFR 171.8 (elevated temperature materials are materials that are intentionally heated for transport and/or shipped at temperatures greater than 100 °C (212 °F)).

The only remaining category of hazardous materials is ''hazardous substances,'' which are defined to include ''a[ny] material, including its mixtures and solutions that * * * [i]s listed in the appendix A to § 172.101 [and] [i]s in a quantity, in one package, which equals or exceeds the reportable quantity (RQ) listed.'' *See* 49 CFR 171.8. The referenced appendix includes several specific lead compounds, none of which appear to be relevant. *See* 49 CFR 172.101, Appendix A, Table 1. It also includes a generic listing for ''lead,'' but states that ''[t]he RQ * * * is limited to those pieces of the metal having a diameter smaller than 100 micrometers (0.004 inches).'' *Id.*, note c. Because the lead in the CRTs and CRT glass is not generally present as ''pieces of metal,'' much less pieces with such small diameters, the RQ for lead does not apply. Cf . DOT Lead Letter (applying only the RQs for specific lead compounds—not the RQ for lead—to a mixture of listed and unlisted lead compounds). Accordingly, the CRTs and CRT glass are not hazardous substances and are not hazardous materials (except in any instances where they might be hazardous wastes, as discussed above).

*D. CRTs and CRT Glass That Are Not Hazardous Materials Are Not Subject to HMR Requirements*

The requirements of the HMR apply only to hazardous materials. *See* 49 CFR 171.1(a) (stating that the ''[p]urpose and scope'' of the HMR is to prescribe requirements for transport of hazardous materials). Accordingly, to the extent that CRTs and CRT glass are not hazardous materials, as discussed above, they are not subject to the HMR.

For example, such CRTs and CRT glass are not subject to shipping paper requirements under the HMR. *See* 49 CFR Part 172, Subpart C; Letter from John A. Gale, Transportation Regulations Specialist, Office of Hazardous Materials Standards, DOT, to Hobart Huson (January 23, 2003) (''the shipping paper requirements in Part 172, Subpart C do not apply to a non-hazardous material. However, a shipping paper that describes both hazardous materials and non-hazardous materials must comply with § 172.201(a)(1)''), provided in Attachment 13.[20] In addition, CRTs and CRT glass are not subject to the labeling and marking requirements of the HMR. *See* 49 CFR Part 172, Subparts D and E. These materials also are not subject to the hazardous material release response requirements of the HMR. *See*, *e.g.*, 49 CFR 171.15, 171.16; 49 CFR Part 172, Subpart G.

**IV. Explanation of Why the State Regulations Are Preempted**

The reasons why the Maine rules for transport of CRTs and CRT glass are preempted vary somewhat from requirement to requirement. We first discuss two specific state requirements that are preempted because they are not ''substantively the same'' as the corresponding HMR requirements: (1) The requirements for Manifests or other specific shipping documents, and (2) the requirements for labeling and marking. We then explain more generally that the MDEP rules as a whole are preempted because they are based on a system of designating, describing, and classifying hazardous materials that is not substantively the same as the corresponding HMR system, and because they are an ''obstacle'' to the goals of the Federal hazmat law. Finally, we explain why the conclusion that the MDEP requirements are preempted is not in any way affected by the fact that certain portions of the Maine hazardous waste program have been ''authorized'' by EPA under another statute (*i.e.*, RCRA).

At the outset, it is worth noting that a senior DOT official, John A. Gale (currently the Chief of Standards Development in the DOT Office of Hazardous Materials Standards), previously considered the extent to which the federal rules for transport of CRTs and CRT glass preempt state requirements that differ. He concluded that ''[Federal hazmat law] preemption would apply in cases where a state has

[20] Even if CRTs and CRT glass could somehow be deemed hazardous materials for some reason other than by qualifying as hazardous wastes, they would not have to be accompanied by a shipping paper with any particular format, as long as the requirements of Part 172, Subpart Care satisfied. *See* Letter from Thomas G. Allan, Senior Transportation Regulations Specialist, Office of Hazardous Materials Standards, DOT, to Eugene J. Secor, EHS/Transportation Specialist, H.B. Fuller Automotive Company (August 14, 1998) (''The HMR do not specify a particular format for shipping papers''), provided in Attachment 14.

not picked up the streamlined [federal] CRT system [i.e., the EPA exclusions for CRTs and CRT glass].'' *See* CRT Project Team Notes at 3 (EPA summary of Mr. Gale's comments). For example, ''state laws requiring [a] manifest[] are not consistent with and would be preempted by DOT's federal rules not requiring * * * a manifest.'' *Id.* The discussion below is consistent with this earlier DOT assessment.[21]

*A. The MDEP Shipping Paper Requirements Are Preempted Because They Are Not Substantively the Same as the HMR Requirements*

The Federal hazmat law provides that state requirements regarding shipping documents are preempted if they are not ''substantively the same'' as the corresponding requirements of the HMR. *See* 49 U.S.C. 5125(b)(1)(C). DOT has clarified that, under this standard, state shipping document requirements must ''conform[] in every significant respect to the Federal requirement.'' *See* 49 CFR 107.202(d). As the Department has noted, ''the shipping paper requirements of the HMR are exclusive and * * * any additional [state] shipping paper requirements are inconsistent under the [Federal hazmat law].'' *See* 47 FR 51,991, 51,994 (November 18, 1982), quoted in 67 FR 2948, 2950 (January 22, 2002).[22]

The MDEP requirements for manifesting broken CRTs and CRT glass (see Sections II.B.1 and II.C above) clearly are not ''substantively the same'' as the HMR requirements. As discussed above, the HMR does not require Manifests for these materials (assuming they are handled consistent with the requirements of EPA's conditional exclusions). *See* Sections III.A and III.B above. DOT has previously determined that where (as here) a state ''has extended the requirement to use a hazardous waste manifest * * * to materials that are not hazardous wastes,'' the state requirements are preempted. *See* 66 FR 37,260, 37,265 (July 17, 2001) (DOT determination that local requirements mandating Manifests for medical wastes are preempted). In reaching this conclusion, the Department reasoned as follows:

> Because the HMR does not require the use of any specific form for shipments of * * * materials that are not hazardous wastes[ ], the requirement * * * that a uniform hazardous waste manifest be carried on any truck transporting [such materials] is not substantively the same as requirements in the HMR [and thus] is preempted.

*Id.* Applying the same reasoning in the present case, it is clear that the Maine Regulations are preempted to the extent that they require Manifests for broken CRTs and CRT glass that are excluded from the federal Manifest requirement.

The MDEP manifest requirements for broken CRTs and CRT glass are also preempted because such materials are not hazardous materials and thus are not subject to any shipping paper requirements under the HMR. *See* 49 CFR Part 172, Subpart C; Sections III.C and III.D above. Furthermore, even if the general HMR shipping paper requirements did somehow apply, they would not require the inclusion of many of the data elements that are included on the Manifest form which is required by MDEP (e.g., the name and address of the waste generator; the name of the transporter(s); waste codes and waste management codes; signatures of the transporter(s) and designated receiving facility; discrepancy indications; and generator's certifications regarding exports and waste minimization). *Compare* 40 CFR Part 262, Appendix (Manifest form) with 49 CFR Part 172, Subpart C (HMR shipping paper requirements). As discussed in note 6 above, MDEP has also directed that persons using the Manifest form include ''item counts of the [CRT] waste * * * in Item 14 [of the Manifest].'' To the extent that this direction is meant to apply to shipments of broken CRTs or CRT glass, it would constitute yet another extra data element that would be preempted. *Cf.* 58 FR 11,796, 11,182 (February 23, 1993) (DOT determination that certain Illinois requirements are preempted because they ''instruct the preparer of the * * * Manifest to enter the total quantity of each hazardous waste * * * in a different manner than the HMR'').

The Maine rules requiring specific shipping documents (i.e., Manifests, UBOLs, or other MDEP-approved forms) for intact CRTs (see Section II.D. 1 above) likewise are not substantively the same as the HMR requirements. As noted above, intact CRTs that meet the requirements of EPA's conditional exclusions are not hazardous materials and thus are not subject to any shipping paper requirements under the HMR. *See* Sections III.C and III.D above. Moreover, even if the intact CRTs were somehow deemed to be hazardous materials, ''the HMR does not require the use of any specific form for shipments of * * * hazardous materials that are not hazardous wastes[ ].'' *See* 66 FR at 37,265. Instead, the HMR simply identifies certain data elements that must be included on a shipping paper, without mandating a particular format. *See generally* 49 CFR Part 172, Subpart C. Because the Maine Regulations require intact CRTs to be transported with shipping papers and dictate shipping papers with a specific format, they are not substantively the same as the HMR and are preempted.

Moreover, the UBOL form and instructions that are incorporated by reference into the Maine Regulations include a number of data elements that are not required in HMR shipping papers (e.g., the name, address, and phone number of the generator, carrier, and designated facility; waste codes; a count of the individual waste CRT items; signatures of the carrier and designated receiving facility; and a generator's certification that ''all parts of the hazardous materials [being shipped] including the * * * lead will be recycled''). *See* Me. Regs., ch. 857, § 4 (incorporating the UBOL form and instructions by reference); Handbook, Appendix H (UBOL form); 49 CFR Part 172, Subpart C (HMR shipping paper requirements). Because the Maine Regulations include extra data elements that are not required under the HMR, the state rules are preempted. *See*, e.g. 69 FR 34,715, 34,719 (June 22, 2004) (DOT determination that Massachusetts rules are preempted to the extent they require additional data elements on shipping papers for regulated medical wastes).

When intact CRTs are shipped from a central accumulation facility to an instate consolidation facility, the Maine Regulations do allow more flexibility in the shipping papers. As noted in Section IID. 1 above, such shipments do not require Manifests, UBOLs, or other MDEP-approved documents, as long as they are accompanied by a log that contains certain specified data elements. *See*, e.g., Me. Regs., ch. 857, § 13(B). However, these logs qualify as shipping papers and are being required by MDEP, even though no shipping papers are required under the HMR. *See* Me. Regs.,

[21] Some of the preemption issues addressed in this section of the Application are related to issues that EIA has indicated it may raise in a case that it filed in the U.S. Court of Appeals for the District of Columbia Circuit (''D.C. Circuit''). *See Electronic Industries Alliance* v. *EPA,* No. 06–1359 (D.C. Cir. filed October 25, 2006) (challenging statements by EPA in its July 28, 2006 CR1 rule that CRTs meeting the conditions for exclusion from the federal definition of hazardous wastes must nevertheless be shipped as hazardous wastes to the extent that they are shipped from, to, or through states that have not adopted the conditional exclusion or similar provisions). In light of the filing of this Application, EIA is planning to ask the D.C. Circuit to place the litigation in abeyance.

[22] For these purposes, the term ''shipping documents'' is interpreted broadly to include any ''shipping order, bill of lading, manifest or other shipping document serving a similar purpose * * *.'' *See* 49 CFR 171.8 (definition of ''shipping paper''); *Colorado Public Utilities Commission* v. *Harmon*, 951 F.2d 1571, 1577 (10th Cir. 1991l) (''the terms 'shipping document' and 'shipping paper' are used interchangeably'').

ch. 857, § 13(B)(3) (''the log sheet [must] accompan[y] the universal waste to the instate consolidation facility'' (emphasis added)).

Additionally, the data elements that must be included in a log go beyond what is required for a shipping paper under the HMR (e.g., the name, address and phone number of the CRT waste generator (or, if the CRT waste was generated by a household, a notation to that effect), and the date on which the waste was delivered to the facility). Compare Me. Regs., ch. 857, § 13(B)(4) (required data elements) with 49 CFR Part 172, Subpart C. Because the Maine Regulations require shipments of intact CRTs from a central accumulation facility to an instate consolidation facility to be accompanied with shipping papers (i.e., logs) and require such shipping papers to include data elements that are not required under the HMR, they are preempted under the HMR. *See*, e.g, 69 FR at 34,719 (DOT determination that Massachusetts rules are preempted to the extent they require additional data elements on shipping papers for regulated medical wastes).[23]

*B. The MDEP Labeling and Marking Requirements Are Preempted Because They Are Not Substantively the Same as the HMR Requirements*

The Federal hazmat law provides that state requirements regarding labeling and marking of hazardous materials are preempted if they are not ''substantively the same'' as the corresponding requirements of the HMR. *See* 49 U.S.C. § 5125(b)(1)(B). DOT has clarified that, under this standard, state labeling and marking requirements must ''conform[] in every significant respect to the Federal requirement.'' *See* 49 CFR § 107.202(d).

The MDEP requirements for labeling and marking of broken CRTs and CRT glass clearly are not ''substantively the same'' as the HMR requirements. As discussed in Sections II.B.2 and II.C above, the Maine Regulations require non-bulk containers of these materials to be marked with the words ''HAZARDOUS WASTE—Federal Law Prohibits Improper Disposal'' and related information (e.g., the name and address of the generator, the relevant Manifest number, and government contact information). *See* Me. Regs., ch. 851, § 8(A)(4). However, the HMR does not require labeling/marking of these materials (assuming they are handled consistent with the requirements of EPA's conditional exclusions). *See* Section III.A and III.B above.

The Maine rules for labeling and marking of intact CRTs likewise are not substantively the same as the HMR requirements. Under the state's universal waste rule, these CRTs must be marked during transportation with the words ''Waste Cathode Ray Tube.'' *See* Me. Regs., ch. 850, § 3(A)(13)(e)(xxii)e; Section II.D.2 above. However, no such marking is required under the HMR. *See* Section III.C and III.D above. Indeed, the HMR does not impose any labeling/marking requirements on intact CRTs. *Id.*

Because the MDEP rules for labeling/marking of broken CRTs, intact CRTs, and CRT glass differ from the HMR requirements, the state rules are preempted under the Federal hazmat law. *See* 69 FR at 34,718–19 (DOT determination that Massachusetts requirements for marking of ''sharps'' and other medical wastes were preempted because they were not substantively the same as the HMR requirements); 58 FR 48,936–37 (DOT determination that California requirements for marking certain containers of flammable or combustible liquids ''go[] beyond—and [are] not substantively the same as—the HMR [and therefore are] preempted by the [Federal hazmat law]'').

*C. The MBEP Requirements in General Are Preempted Inasmuch As They Are Based on a System for Designating, Describing, and Classifying Hazardous Materials That Is Not Substantively the Same as the HMR System*

Under the Federal hazmat law, state requirements concerning ''the designation, description, and classification of hazardous material[s]'' are preempted if they are not ''substantively the same'' as the corresponding HMR requirements. *See* 49 U.S.C. 5125(b)(1)(A). DOT has clarified that, under this standard, state definitions must ''conform[ ] in every significant respect to the Federal requirement.'' *See* 49 CFR 107.202(d). According to the Department, ''non-Federal definitions and classifications that result in regulating the transportation * * * of more, fewer or different hazardous materials than the HMR * * * are preempted.'' *See* 65 FR 81,950, 81,953–54 (December 27, 2000) (DOT determination that definitions established by Broward County, Florida are preempted). Moreover, ''regulations that apply [a preempted] definition are preempted * * * to the extent that they relate to transportation.'' *See* 67 FR 35,193, 35,195 (May 17, 2002) (DOT decision on petition for reconsideration of the Broward County preemption determination).

In the present case, the MDEP rules clearly employ different definitions than the HMR, which result in regulating the transportation of CRTs and CRT glass that are not regulated under the HMR. For example, the Maine definition of ''hazardous waste'' includes broken CRTs and CRT glass (*see* Section II.A above), even though such materials do not meet the HMR definition of ''hazardous waste'' because they are not ''subject to the Hazardous Waste Manifest Requirements of the U.S. Environmental Protection Agency specified in 40 CFR part 262.'' *See* 49 CFR 171.8; Section III.A above. The broken CRTs and CRT glass also are not hazardous materials for any other reasons under the HMR. *See* Section III.C above. However, because the broken CRTs and CRT glass are classified as ''hazardous wastes'' under the Maine Regulations, they are subject to a wide range of state transportation requirements. *See* Sections II.B and II.C above.

DOT has previously stated that where ''[a non-federal] definition of 'hazardous waste' includes not only those materials regulated under the HMR but also other materials not regulated under the HMR * * * [the] definition is inconsistent with the HMR, and, therefore, preempted.'' *See* 55 FR 36,736, 36,743 (September 6, 1990). Thus, the Maine definition of ''hazardous waste'' is preempted. In addition, the state regulations that impose transportation requirements on broken CRTs and CRT glass based on the preempted definition are also preempted. The preempted requirements include, but are not limited to, those relating to manifesting, labeling/marking, emergency response plans, insurance, and transporter licensing. *See* Section II.B above (describing these and other Maine requirements for transport of broken CRTs and CRT glass).

The Maine Regulations also classify intact CRTs as ''hazardous wastes,'' albeit a special subset of hazardous wastes eligible for management under reduced regulatory requirements (i.e., ''universal wastes''). *See* Section II.D above; Me. Regs., ch. 850,

[23] As discussed above, even though the Maine Regulations do not require use of a specific log form, MDEP has issued guidance stating that central accumulation facilities ''must'' use particular forms developed for this purpose. *See* note 15 above. To the extent that these forms are, in fact, intended to be mandatory, the requirement to use a specific form is once again preempted under the Federal hazmat law (as in the case of the UBOLs discussed above). Moreover, the log forms include still more data elements that are not required for HMR shipping papers and therefore are preempted under the Federal hazmat law (e.g., the name, location, and mailing address of the central accumulation facility, the job title of the contact person, a waste type code, a count of the individual CRT items, and an indication as to whether the CRTs are from computers or televisions). *See* Handbook at 25–28.

§ 3(A)(13)(e)(ii), Note (indicating that hazardous wastes are subject to the full hazardous waste management rules, unless they qualify as universal wastes). Because intact CRTs are generally not federal hazardous wastes or hazardous materials, see Sections III.A and III.C above, the Maine definition of hazardous waste is once again preempted. In addition, the state transport rules for intact CRTs are preempted, including those for shipping papers, labeling/marking, emergency response plans, and insurance. *See* Section II.D above (describing these and other Maine requirements for transport of intact CRTs).

Moreover, the Maine ''universal waste'' category itself is preempted under the Federal hazmat law. The MDEP regulations use this term, at least in part, to define the applicability of the state requirements for transportation (e.g., the state shipping paper requirements). *See* Section II.D above. Under the state rules, universal wastes include intact CRTs that are not HMR hazardous materials. *See* id. (intact CRTs are Maine universal wastes); Section III.C above (intact CRTs are generally not HMR hazardous materials). In this way, the Maine ''universal waste'' definition results in regulating the transportation of more materials than the HMR. Under such circumstances, the definition is preempted, as are all of the state transportation requirements for intact CRTs that are based on this definition. *See,* eg, 65 FR at 81,953–54.

*D. The MDEP Requirements in General Are Preempted Inasmuch as They Are an Obstacle to the Goals of the Federal Hazmat Law*

The Federal hazmat law provides that state requirements are preempted if they are ''an obstacle to accomplishing and carrying out [the Federal hazmat law or] a regulation prescribed under [the HMR].'' *See* 49 U.S.C. 5125(a)(2). The key goals of the statute were to promote the flow of commerce, to minimize confusion, and to ensure transportation safety. *See generally* Colorado Pub. Util. Comm 'n, 951 F.2d at 1580–81. Congress determined that ''a high degree of uniformity of Federal, State, and local laws is required in order to promote safety and to encourage the free flow of commerce.'' *See* H.R. Rep. No. 444 (Part 1), 101st Cong., 2d Sess., at 22 (1990). Thus, it made ''uniformity * * * the linchpin in the design of the statute.'' *See* 951 F.2d at 1575.

In the present case, the Maine Regulations for transport of CRTs and CRT glass are clearly an obstacle to the goals of the Federal hazmat law. As an initial matter, as discussed above, the state requirements are substantively different from the HMR requirements with respect to at least three areas where uniformity is specifically mandated: (1) Shipping papers, (2) labeling/marking, and (3) the designation, description, and classification of hazardous materials. DOT has previously recognized that, in these areas, ''any substantive difference creates an 'obstacle.' '' *See* 67 FR at 2,949; see also id. at 2,950 n.2 (discussing an earlier DOT inconsistency ruling that found that ''differing hazard class definitions and additional shipping paper requirements are preempted because they 'are an obstacle to the accomplishment of the [Federal hazmat law] and its regulations' '').

Accordingly, the MDEP rules at issue are an ''obstacle'' and are preempted.

One way that the Maine Regulations serve as an obstacle is by creating substantial regulatory confusion. As Congress stressed when it expanded the Federal hazmat law preemption provisions in 1990, the existence of state regulations which vary from the federal regulations ''confound[s] shippers and carriers which attempt to comply with multiple and conflicting * * * regulatory requirements.'' *See* Hazardous Materials Transportation Uniform Safety Act of 1990, Pub. L. 101–615 § 2, 104 Stat. 3244. In the present case, shippers and carriers will undoubtedly be confused when broken CRTs and CRT glass are classified and regulated during transportation as ''hazardous wastes'' by MDEP, but are not similarly classified or regulated by DOT.

For example, although broken CRTs and CRT glass are not federal hazardous wastes or hazardous materials under the HMR, the Maine Regulations dictate that they be shipped with a ''Uniform Hazardous Waste Manifest,'' which refers to various federal hazardous waste rules and terms (e.g., ''Hazardous Waste Report Management Methods Codes,'' EPA Identification Numbers, and the hazardous waste minimization requirements of ''40 CFR 262.27(a)''), and requires ''Certification of receipt of hazardous materials.'' *See* Me. Regs., ch. 857 (state manifest requirements for ''hazardous wastes'' as defined by the Maine Regulations); 40 CFR Part 262, Appendix (Manifest form) (Item Nos. 1, 5, 7, 8, 15, 19, and 20 (emphases added)). The Maine rules also require broken CRTs and CRT glass to be marked during transportation with the words ''HAZARDOUS WASTE'' and a reference to federal law. *See* Me. Regs., ch. 851, § 8(A)(4). In addition, the rules prohibit generators from offering the materials to a transporter who is not licensed as a hazardous waste transporter. *See* Me. Regs., ch. 851, § 7(A). A shipper need not undertake any of these activities to ship these materials under the HMR.

Shippers and carriers also will be confused when intact CRTs are classified and regulated during transportation as ''universal wastes'' by MDEP, even though there is no similar DOT classification and no applicable requirements for the materials under the HMR. The MDEP rules for universal wastes are a particular source of confusion, given that they equate ''universal wastes'' to ''hazardous materials'' (i.e., the same term used to define the scope of the HMR). *See,* e.g., Me. Regs., ch. 850, § 3(A)(13)(e)(iii) (requiring universal wastes to be shipped with a ''Recyclable Hazardous Material Uniform Bill of Lading'' if they are not shipped with a Manifest); Me. Regs., ch. 857, § 4 (incorporating the UBOL form by reference); Handbook, Appendix H (UBOL form), Title (''Maine Recyclable Hazardous Material''), Item 14 (''I certify that all parts of the hazardous materials referenced * * * will be recycled''); Item 18 (''Certification of receipt of hazardous materials'') (emphases added).

The confusion will inevitably lead to regulatory non-compliance and increased risks to transportation safety. The problems will be magnified even further to the extent that other states might adopt their own independent regulatory requirements for CRTs and CRT glass. Moreover, these problems will go beyond the state shipping paper and labeling/marking requirements for CRTs and CRT glass. As noted above, all of the state requirements for CRTs and CRT glass are based on a system for designating, describing, and classifying hazardous materials that is substantively different from the DOT system and thus will confuse the regulated community. DOT has previously determined that many of the specific types of requirements imposed by MDEP create obstacles to the goals of the Federal hazmat law. For example, the Maine regulations require transporters of CRTs and CRT glass to have special insurance coverage and emergency response plans. *See* Sections II.B.3 and II.D.3 above. DOT has determined that these types of requirements create obstacles and therefore are preempted. *See,* e.g., Colorado Pub. Util. Comm 'n, 951 F.2d at 1581–82 (upholding DOT's determination that Colorado's insurance and clean-up plan requirements for radioactive materials are preempted, because ''additional documentation and

information requirements in one jurisdiction create 'unreasonable hazards in other jurisdictions' and could confound 'shippers and carriers which attempt to comply with multiple and conflicting regulations' ").

Finally, the Maine Regulations serve as an obstacle to the goals of the Federal hazmat law, inasmuch as they inhibit the free flow of commerce in CRTs for recycling. *See* H.R. Rep. No. 444 (Part 1), 101st Cong., 2d Sess., at 22 (1990) (discussing the need for uniformity "in order to * * * encourage the free flow of commerce"). For example, at least one EIA member company that provides recycling services for used CRTs from businesses throughout the rest of the country has decided not to provide similar services for used CRTs generated in Maine, based in part on the added burdens imposed by the Maine regulations. Although some EIA members have extended their recycling programs for business-generated CRTs to the State of Maine, in doing so they must either charge more for the recycling services to cover the costs of complying with the Maine rules or they must bear the increased transportation costs themselves. In either event, the higher costs interfere with the free flow of commerce and are likely to discourage the environmentally beneficial recycling of CRTs and CRT glass.

*E. Preemption of the MDEP Requirements Is Not Affected By EPA's "Authorization" of Portions of the Maine Regulations Under RCRA*

For all of the reasons discussed above, the MDEP rules for transport of CRTs and CRT glass are preempted under the Federal hazmat law. This conclusion is not in any way affected by the fact that some of the Maine Regulations have been "authorized" by EPA under RCRA. As discussed below, the specified Maine rules are not part of the state's authorized hazardous waste program. Moreover, even if the rules could somehow be deemed part of the EPA-authorized program, such authorization would not shield the rules from preemption under the Federal hazmat law.

1. The MDEP Rules for Transport of CRTs and CRT Glass Are Not Part of the State Hazardous Waste Program That Has Been Authorized by EPA

Under RCRA, EPA can authorize individual states to implement portions of their hazardous waste programs in lieu of the corresponding parts of the federal RCRA program. *See* RCRA 3006(b), 42 U.S.C. 6926(b). Maine, like virtually all other states, has been authorized for a substantial part of its hazardous waste program. *See,* e.g., 69 FR 64,861, 64,862 (November 9, 2004) (discussing the history of the authorized Maine program). However, the state rules for transport of CRTs and CRT glass are not part of the authorized program.

The federal EPA regulations specify that "[w]here an approved State program has a greater scope of coverage than required by Federal law, the additional coverage is not part of the Federally approved program." *See* 40 CFR 271.l(i)(2). In the present case, the Maine Regulations are broader in scope than the federal RCRA regulations. *See* 69 FR at 64,864 ("There * * * are aspects of the Maine program which are broader in scope than the Federal program. The State requirements which are broader in scope are not considered to be part of the Federally enforceable RCRA program"). As discussed above, Maine generally regulates CRTs and CRT glass as hazardous wastes (either "ordinary" hazardous wastes or "universal" hazardous wastes), while the federal regulations generally exclude CRTs and CRT glass from the definition of solid waste (and, therefore, from the definition of hazardous waste). *See* Sections II.A and III.A above. Because the state rules regulate CRTs and CRT glass that are not regulated at the federal level, the state rules for such materials—including the transport requirements for CRTs and CRT glass—are not part of the authorized state program.[24]

2. The MDEP Rules Would Not Be Shielded From Preemption Under the Federal Hazmat Law, Even If They Were Deemed To Be Authorized Under RCRA

Even if the Maine requirements for transport of CRTs and CRT glass could somehow be considered part of the state's authorized hazardous waste program, they would not be shielded from preemption under the Federal hazmat law. As DOT has long noted, "[t]here is no basis for the position * * * that any State can avoid preemption of its hazardous waste transporter requirements simply by obtaining authorization under RCRA." *See* 60 FR 62,527, 62,534 (December 6, 1995). On the contrary, "EPA-authorized State requirements governing hazardous waste transporters that are more stringent than EPA's own regulations are preempted when those fail to meet the [preemption] standards of 49 U.S.C. 5125." *Id;* see also 66 FR 37,260, 37,263 (July 17, 2001) ("RCRA and EPA's regulations do not authorize a State * * * to impose requirements on the transportation of hazardous waste that fail to satisfy the preemption criteria in 49 U.S.C. 5125).[25] As discussed above, the MDEP rules for transport of CRTs and CRT glass do not meet the referenced Federal hazmat law standards. Therefore, the Maine rules are preempted.

**V. Interest of the Applicant**

EIA is a non-profit trade association consisting of both associations and individual companies in the electronics and "high technology" industries, including nearly 1,300 corporate members that provide products and services ranging from microscopic electronic components to state-of-the art defense, space and industrial systems, as well as the full range of information technology, telecommunications and consumer electronic products. EIA's mission includes "addressing issues that are important to the [electronics] industry [and] mobilizing the industry on critical issues." EIA Bylaw I, provided in Attachment 18. The EIA Environmental Issues Council is specifically designed to address the electronics industry's environmental

[24] *See* Memorandum from Lee M. Thomas, EPA Assistant Administrator for Solid Waste and Emergency Response, to EPA Program Implementation Guidance Addressees (May 21, 1984), provided in Attachment 15 ("To determine whether a particular requirement or provision of a State program is 'broader in scope' (and therefore not a part of the authorized program) * * * the [key] question[ ] [is:] Does imposition of the State requirement increase the size of the regulated community beyond that of the Federal program? * * * Examples of requirements that are broader in scope include: * * * a lesser amount of waste exempted from regulation"); *In re. Hardin County, Ohio,* 5 E.A.D. 189, 202, RCRA (3008) Appeal No. 93–1 (April 12, 1994), provided in Attachment 16 (dismissing an EPA enforcement action based on an Ohio rule that was found not to be part of the state's authorized RCRA program because "the size of the regulated community under the Ohio * * * rule [was] larger than the size of the regulated community under * * * the federal hazardous waste program").

[25] EPA likewise has expressly disavowed any possible implication that authorization of a state's hazardous waste program under RCRA might preclude preemption under the Federal hazmat law. According to the Agency, "EPA does not believe that it is appropriate to use the RCRA Subtitle C authorization process to make specific determinations of possible preemption under the [Federal hazmat law] * * * [T]he RCRA authorization decisions provide no basis for shielding state regulations touching upon hazardous materials transport from possible preemption challenges under the [Federal hazmat law]." *See* Letter from Michael Shapiro, Director, Office of Solid Waste, EPA, to Charles Dickhut, Chemical Waste Transportation Institute (August 17, 1994), provided in Attachment 17; see also *New York Department of Environmental Conservation* v. *DOT,* 37 F. Supp. 2d. 152, 158 (N.D.N.Y. 1999) ("EPA clearly does not decide whether a preemption problem exists under the [Federal hazmat law] when considering an application for state authorization under RCRA. * * * In fact, * * * EPA refuses to consider any possible preemption under the [Federal hazmat law]").

and related regulatory concerns and to actively work to reduce the environmental impacts of the electronics industry's products throughout their entire life cycle, from design, through use, to end of life.

The business of EIA member companies includes manufacturing, sale, and distribution of CRTs, use of CRTs, and collection and recycling of used CRTs and CRT glass. During the course of these operations, many EIA member companies transport used CRTs or CRT glass, offer such materials for transportation, and/or pay for such transportation by others. Such shipments frequently travel from, to, through, or within the State of Maine.

Indeed, Maine law requires all manufacturers of computer monitors and televisions—most of which are EIA members—to have and implement a plan for the collection and recycling or reuse of the products that they manufactured and that have been generated as wastes by households within the state. *See* Me. Rev. Stat. Ann., tit. 38, § 1610(6)(A) (Attachment 19); *see also* MDEP, ''Brands for which Manufacturers have Notified (listed by Brand)'' (April 13, 2007) (Attachment 20) (identifying manufacturers that have notified under the Maine law and the corresponding brand names). Manufacturers also are responsible for the ''costs associated with the handling, transportation and recycling of household-generated waste computer monitors and televisions that are or were produced by [them] and a pro rata share of orphan waste computer monitors and orphan waste televisions.'' *See* Me. Regs., ch. 415, § 2(C) (emphasis added) (Attachment 6); Me. Rev. Stat. Ann., tit. 38, § 1610(5)(D) (Attachment 19); *see also* MDEP, ''Manufacturer 2007 Pro Rata Share Responsibility for Orphan Waste for Maine Household Televisions [and] Computer Monitor Recycling Program'' (November 2006) (Attachment 21) (identifying the orphan waste shares for the affected manufacturers). Some EIA members also offer collection and recycling services for CRTs that are generated as wastes by businesses and/or other institutions in the state. In all cases, because there are no ultimate recycling facilities for CRTs in Maine, the CRTs must be transported to recycling facilities in other states.

Under the MDEP requirements that are the subject of this Application, some or all of these shipments are subject to transport requirements that do not apply under the HMR. For example, MDEP requires such shipments to be accompanied by a Manifest, UBOL, or other MDEP-approved document, even though such documents generally are not required under the HMR. Similarly, MDEP requires specific labels and/or markings on the packages which are not required under the HMR. *See* Section II above (describing the Maine requirements for transport of CRTs and CRT glass); *see also* Me. Regs., ch. 415, § 3(B)(l) (requiring all transport of household CRTs to be performed in accordance with the Maine universal waste requirements).

The additional Maine requirements for transport of CRTs and CRT glass place unlawful and unnecessary burdens on those EIA members that transport (or offer for transport) such materials from, to, or through the State of Maine, or that pay for such services performed by others (as discussed above). To the extent that these EIA members are transporting the CRTs or CRT glass, or are offering such materials for transport, they will have the burden of complying with additional regulatory requirements in Maine. To the extent that these companies are paying for transportation-related services offered by others (as in the case of the manufacturers covered by the Maine law for collection and recycling of household CRTs), they will have to pay more for those services than would otherwise be required if the services could be provided in accordance with HMR requirements only.

In at least one case, an EIA member that provides recycling services for used CRTs from businesses throughout the rest of the country has decided not to provide similar services for used CRTs generated in Maine, based in part on the added burdens imposed by the Maine regulations. In this way, the Maine regulations affect this company's efforts to build customer loyalty and increase customer satisfaction by offering nationwide recycling services. Moreover, the Maine rules are environmentally counterproductive, inasmuch as they discourage this company and others from providing CRT recycling services.

A determination by DOT that the Maine requirements are preempted by the HMR would alleviate the burdens on EIA members and facilitate the environmentally sound recycling of CRTs. In addition, it would further the Federal hazmat law goals of promoting uniform requirements for a safe and efficient transportation system.

Because EIA members are directly affected by the Maine Regulations addressed in this Application, and one of the Alliance's main purposes is to represent its members with respect to these types of issues, EIA has standing to submit this Application for a preemption determination. *See* 49 U.S.C. 5125(d); 58 FR at 11,181 (''The [Federal hazmat law] standing test is that a person be 'directly affected' in order to apply for a preemption determination. * * * [DOT] interprets 'directly affected' persons broadly because 'important preemption issues [are raised] under the [Federal hazmat law], and all parties engaged in hazardous materials transportation or the regulation of that transportation will be served by [DOT's] addressing [preemption] issues.' ''); 60 FR at 62,532 (''[the 'directly affected'] standard is a simple one; 'being affected' means only that the [state] requirement applies to the applicant'').

## VI. Conclusion

For the reasons discussed above, EIA hereby requests that DOT issue a determination pursuant to 49 U.S.C. 5125(d)(1) and 49 CFR 107.203 that the Maine Regulations codified at 06 096 Code Me. R. chs. 850–857 and 415 are preempted by the Federal hazmat law and the HMR to the extent that they impose requirements on the transportation of CRTs and CRT glass that are not ''hazardous wastes'' under the HMR because they have been excluded from federal manifesting requirements by EPA. The specific Maine requirements that are covered by this request include, but are not limited to, the state requirements for Manifests and/or other shipping papers, labeling/marking, emergency response plans, insurance, and transporter licensing.

## VII. Certificate of Service and Notification of Opportunity To Submit Comments

I hereby certify, pursuant to 49 CFR § 107.205(a), that copies of the foregoing application for a preemption determination were sent this 8th day of May 2007 by certified mail, return receipt requested, to the following, together with a statement that comments regarding the application may be submitted to the Chief Counsel of the Pipeline and Hazardous Materials Safety Administration within the U.S. Department of Transportation:

Gov. John E. Baldacci, Office of the Governor, 1 State House Station, Augusta, ME 04333–0001.

David P. Littell, Commissioner Maine Department of Environmental Protection, 17 State House Station, Augusta, ME 04333–0017.

Steven Rowe, Attorney General, 6 State House Station, Augusta, ME 04333–0006.

Jeffrey Pidot, Office of the Attorney General, Chief, Natural Resources Division, 6 State House Station, Augusta, ME 04333–0006.

Aaron H. Goldberg, Beveridge & Diamond, P.C., Counsel to Applicant, Electronic Industries Alliance.

**Table of Attachments**

1. Summary of Key Maine Requirements That Are Preempted and the Basis for Preemption.

2. Me. Regs., ch. 850 (Identification of Hazardous Wastes).

3. Me. Regs., ch. 851 (Standards for Generators of Hazardous Waste)

4. Me. Regs., ch. 853 (Licensing of Transporters of Hazardous Waste)

5. Me. Regs., ch. 857 (Hazardous Waste Manifest Requirements)

6. Me. Regs., ch. 415 (Reasonable Costs for Handling and Recycling of Electronic Wastes).

7. MDEP, ''Guidance for the New Uniform Hazardous Waste Manifest.''

8. MDEP, ''Universal Waste Handbook'' (March 2007).

9. Letter from Charles E. Betts, Senior Transportation Specialist, Office of Hazardous Materials Standards, DOT, to Phil Stewart, The Dow Chemical Company (April 21, 2006).

10. EPA, ''Notes from 4/24/98 CRT Project Team Conference Call on Transportation Packaging Issue'' (April 28, 1998).

11. Letter from Delmer F. Billings, Chief, Regulations Development, Office of Hazardous Materials Standards, DOT, to Ursula Judenhofer, BARLOCHER GmbH (August 8, 1997).

12. Letter from John A. Gale, Chief, Standards Development, Office of Hazardous Materials Standards, DOT, to James Bandstra, Environmental Manager, Hammond Group, Inc. (July 13, 2004).

13. John A. Gale, Transportation Regulations Specialist, Office of Hazardous Materials Standards, DOT, to Hobart Huson (January 23, 2003).

14. Letter from Thomas O. Allan, Senior Transportation Regulations Specialist, Office of Hazardous Materials Standards, DOT, to Eugene J. Secor, EHS/Transportation Specialist, H.B. Fuller Automotive Company (August 14, 1998).

15. Memorandum from Lee M. Thomas, EPA Assistant Administrator for Solid Waste and Emergency Response, to EPA Program Implementation Guidance Addressees (May 21, 1984).

16. In re: Hardin County, Ohio, 5 E.A.D. 189, 202, RCRA (3008) Appeal No. 93–1 (April 12, 1994).

17. Letter from Michael Shapiro, Director, Office of Solid Waste, EPA, to Charles Dickhut, Chemical Waste Transportation Institute (August 17, 1994).

18. Electronic Industries Alliance, Bylaw I.

19. Me. Rev. Stat. Ann., tit. 38, § 1610.

20. MDEP, ''Brands for which Manufacturers have Notified (listed by Brand)'' (April 13, 2007).

21. MDEP, ''Manufacturer 2007 Pro Rata Share Responsibility for Orphan Waste for Maine Household Televisions [and] Computer Monitor Recycling Program'' (November 2006).

SUMMARY OF KEY MAINE REQUIREMENTS THAT ARE PREEMPTED AND THE BASIS FOR PREEMPTION

| | Broken CRTs/CRT glass | Intact CRTs | Basis for preemption |
|---|---|---|---|
| Shipping Papers | Manifest required. (Me. Regs., ch. 857). | Manifest, Uniform Bill of Lading, or Log accompanying the waste. (Me. Regs., ch. 857, § 6(B)). | • Not substantively the same as the HMR.<br>• Based on classification that is not the same as in the HMR.<br>• Obstacle to goals to Federal hazmat law. |
| Labeling/Marking | ''Hazardous Waste'' and other information. (Me. Regs., ch. 851, § 8(A)(4)). | ''Waste Cathode Ray Tube'' (Me. Regs., ch. 850, § 3(A)(13)(e)(xxii)e). | • Not substantively the same as the HMR.<br>• Based on classification that is not the same as in the HMR. |
| Classification | Hazardous waste (Me. Regs., ch. 850, § 3(A)). | ''Universal'' hazardous waste. (Me. Regs., ch. 850, § 3(AX13Xb)(i)). | • Not substantively the same as the HMR.<br>• Obstacle to goals of Federal hazmat law. |
| Insurance | At least $500,000 in coverage. (Me. Regs., ch. 853, §§ 5(B)(9) and 8(B)). | At least $1,000,000 in coverage. (Me. Regs., ch. 853, § 11(H)). | • Based on classification that is not the same as in the HMR.<br>• Obstacle to goals of Federal hazmat law. |
| Emergency Response Plan | Must have plan and keep copy on each truck. (Me. Regs., ch. 853, § 8(F)). | Must have plan and keep copy on each truck. (Me. Regs., ch. 853, § 11(K)). | • Based on classification that is not the same as in the HMR.<br>• Obstacle to goals of Federal hazmat law. |
| Transporter Licensing | License required. (Me. Regs., ch. 853, § 4(A)(1)). | N/A | • Based on classification that is not the same as in the HMR.<br>• Obstacle to goals of Federal hazmat law. |
| Other Transporter Requirements. | (Me. Regs., ch. 853) | (Me. Regs., ch. 853, § 10–11) | • Based on classification that is not the same as in the HMR.<br>• Obstacle to goals of Federal hazmat law. |

[FR Doc. E8–9524 Filed 5–5–08; 8:45 am]

**BILLING CODE 4910–60–M**

## DEPARTMENT OF TRANSPORTATION

### Surface Transportation Board

**[STB Docket No. AB–857 (Sub-No. 1X)]**

### Great Western Railway of Colorado, LLC—Abandonment Exemption—in Weld County, CO

Great Western Railway of Colorado, LLC (GWRC) has filed a notice of exemption under 49 CFR 1152 Subpart F—*Exempt Abandonments* to abandon its Welty Branch, a 6.2-mile line of railroad, extending between milepost 0.0, at Johnstown, and milepost 6.2, near Welty, in Weld County, CO. The line traverses United States Postal Service Zip Codes 80513 and 80534.

GWRC has certified that: (1) No local traffic has moved over the line for at least 2 years; (2) no overhead traffic has moved over the line for at least 2 years; [1] (3) no formal complaint filed by a user of rail service on the line (or by a state or local government entity acting on behalf of such user) regarding cessation of service over the line either is pending with the Board or with any U.S. District Court or has been decided in favor of complainant within the 2-year period; and (4) the requirements of 49 CFR 1105.7 (environmental report), 49 CFR 1105.8 (historic report), 49 CFR 1105.11 (transmittal letter), 49 CFR 1105.12 (newspaper publication), and 49 CFR 1152.50(d)(1) (notice to governmental agencies) have been met.

As a condition to this exemption, any employee adversely affected by the abandonment shall be protected under *Oregon Short Line R. Co.—Abandonment—Goshen*, 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, this exemption will be effective on June 5, 2008, 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),[3] and trail use/rail banking requests under 49 CFR 1152.29 must be filed by May 16, 2008. Petitions to reopen or requests for public use conditions under 49 CFR 1152.28 must be filed by May 27, 2008, with the Surface Transportation Board, 395 E Street, SW., Washington, DC 20423–0001.

A copy of any petition filed with the Board should be sent to GWRC's representative: Karl Morell, Of Counsel, Ball Janik LLP, 1455 F Street, NW., Suite 225, Washington, DC 20005.

If the verified notice contains false or misleading information, the exemption is void *ab initio*.

GWRC has filed environmental and historic reports which address the effects, if any, of the abandonment on the environment and historic resources. SEA will issue an environmental assessment (EA) by May 9, 2008. Interested persons may obtain a copy of the EA by writing to SEA (Room 1100, Surface Transportation Board, Washington, DC 20423–0001) or by calling SEA, at (202) 245–0305. [Assistance for the hearing impaired is available through the Federal Information Relay Service (FIRS) at 1–800–877–8339.] Comments on environmental and historic preservation matters must be filed within 15 days after the 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), GWRC 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 GWRC's filing of a notice of consummation by May 6, 2009, and there are no legal or regulatory barriers to consummation, the authority to abandon will automatically expire.

Board decisions and notices are available on our Web site at *http://www.stb.dot.gov.*

Decided: April 29, 2008.

By the Board, David M. Konschnik, Director, Office of Proceedings.

**Anne K. Quinlan,**

*Acting Secretary.*

[FR Doc. E8–9847 Filed 5–5–08; 8:45 am]

**BILLING CODE 4915–01–P**

[1] According to GWRC, the line is stub-ended and not capable of handling overhead traffic.

[2] The Board will grant a stay if an informed decision on environmental issues (whether raised by a party or by the Board's Section of Environmental Analysis (SEA) in its independent investigation) cannot be made before the exemption's effective date. *See Exemption of Out-of-Service 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] Each OFA must be accompanied by the filing fee, which is currently set at $1,300. *See* 49 CFR 1002.2(f)(25).

Federal Register

Tuesday,
May 6, 2008

# Part II

# Environmental Protection Agency

## 40 CFR Parts 9, 85, et al.

## Control of Emissions of Air Pollution From Locomotive Engines and Marine Compression-Ignition Engines Less Than 30 Liters per Cylinder; Final Rule

**ENVIRONMENTAL PROTECTION AGENCY**

**40 CFR Parts 9, 85, 86, 89, 92, 94, 1033, 1039, 1042, 1065, and 1068**

**[EPA–HQ–OAR–2003–0190; FRL–8545–3]**

**RIN 2060–AM06**

# Control of Emissions of Air Pollution From Locomotive Engines and Marine Compression-Ignition Engines Less Than 30 Liters per Cylinder

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Final rule.

**SUMMARY:** EPA is adopting a comprehensive program to dramatically reduce pollution from locomotives and marine diesel engines. The controls will apply to all types of locomotives, including line-haul, switch, and passenger, and all types of marine diesel engines below 30 liters per cylinder displacement, including commercial and recreational, propulsion and auxiliary. The near-term emission standards for newly-built engines will phase in starting in 2009. The near-term program also includes new emission limits for existing locomotives and marine diesel engines that apply when they are remanufactured, and take effect as soon as certified remanufacture systems are available, as early as 2008. The long-term emissions standards for newly-built locomotives and marine diesel engines are based on the application of high-efficiency catalytic aftertreatment technology. These standards begin to take effect in 2015 for locomotives and in 2014 for marine diesel engines. We estimate particulate matter (PM) reductions of 90 percent and nitrogen oxides ($NO_X$) reductions of 80 percent from engines meeting these standards, compared to engines meeting the current standards.

We project that by 2030, this program will reduce annual emissions of $NO_X$ and PM by 800,000 and 27,000 tons, respectively. EPA projects these reductions will annually prevent up to 1,100 PM-related premature deaths, 280 ozone-related premature deaths, 120,000 lost work days, 120,000 school day absences, and 1.1 million minor restricted-activity days. The annual monetized health benefits of this rule in 2030 will range from $9.2 billion to $11 billion, assuming a 3 percent discount rate, or between $8.4 billion to $10 billion, assuming a 7% discount rate. The estimated annual social cost of the program in 2030 is projected to be $740 million, significantly less than the estimated benefits.

**DATES:** This rule is effective on July 7, 2008. The incorporation by reference of certain publications listed in this regulation is approved by the Director of the Federal Register as of July 7, 2008.

**ADDRESSES:** EPA has established a docket for this action under Docket ID No. EPA–HQ–2003–0190. All documents in the docket are listed on the *www.regulations.gov* web site. Although listed in the index, some information is not publicly available, e.g., CBI 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 Docket, EPA/DC, EPA West, Room 3334, 1301 Constitution Ave., NW., Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding legal holidays. The telephone number for the Public Reading Room is (202) 566–1744, and the telephone number for the Air Docket is (202) 566–1742.

**FOR FURTHER INFORMATION CONTACT:** John Mueller, U.S. EPA, Office of Transportation and Air Quality, Assessment and Standards Division (ASD), Environmental Protection Agency, 2000 Traverwood Drive, Ann Arbor, MI 48105; telephone number: (734) 214–4275; fax number: (734) 214–4816; e-mail address: *Mueller.John@epa.gov,* or Assessment and Standards Division Hotline; telephone number: (734) 214–4636.

**SUPPLEMENTARY INFORMATION:**

## Does This Action Apply to Me?

- *Locomotives*

Entities potentially affected by this action are those that manufacture, remanufacture or import locomotives or locomotive engines; and those that own or operate locomotives. Regulated categories and entities include:

| Category | NAICS code [1] | Examples of potentially affected entities |
|---|---|---|
| Industry .... | 333618, 336510 | Manufacturers, remanufacturers and importers of locomotives and locomotive engines. |
| Industry .... | 482110, 482111, 482112 | Railroad owners and operators. |
| Industry .... | 488210 | Engine repair and maintenance. |

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. This table lists the types of entities that EPA is now aware could potentially be regulated by this action. Other types of entities not listed in the table could also be regulated. To determine whether your company is regulated by this action, you should carefully examine the applicability criteria in 40 CFR 92.1, 1033.1, 1065.1, and 1068.1. If you have questions, consult the person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

- *Marine Engines and Vessels*

Entities potentially affected by this action are companies and persons that manufacture, sell, or import into the United States new marine compression-ignition engines, companies and persons that rebuild or maintain these engines, companies and persons that make vessels that use such engines, and the owners/operators of such vessels. Affected categories and entities include:

| Category | NAICS code [1] | Examples of potentially affected entities |
|---|---|---|
| Industry .... | 333618 | Manufacturers of new marine diesel engines. |
| Industry .... | 33661 and 346611 | Ship and boat building; ship building and repairing. |

[1] North American Industry Classification System (NAICS).

| Category | NAICS code [1] | Examples of potentially affected entities |
|---|---|---|
| Industry .... | 811310 | Engine repair, remanufacture, and maintenance. |
| Industry .... | 483 | Water transportation, freight and passenger. |
| Industry .... | 487210 | and Sightseeing Transportation, Water. |
| Industry .... | 4883 | Support Activities for Water Transportation. |
| Industry .... | 1141 | Fishing. |
| Industry .... | 336612 | Boat building (watercraft not built in shipyards and typically of the type suitable or intended for personal use). |

This table is not intended to be exhaustive, but rather provides a guide for readers regarding entities likely to be regulated by this action. This table lists the types of entities that EPA is now aware could potentially be regulated by this action. Other types of entities not listed in the table could also be regulated. To determine whether your company is regulated by this action, you should carefully examine the applicability criteria in 40 CFR 94.1, 1042.1, 1065.1, and 1068.1. If you have questions, consult the person listed in the preceding **FOR FURTHER INFORMATION CONTACT** section.

## Outline of This Preamble


I. Overview
- A. What Is EPA Finalizing and How Does It Differ From the Proposal?
- B. Why Is EPA Taking This Action?

II. Air Quality and Health Impacts
- A. Overview
- B. Public Health Impacts
- C. Environmental Impacts
- D. Other Criteria Pollutants Affected by This Final Rule
- E. Emissions from Locomotive and Marine Diesel Engines

III. Emission Standards
- A. What Locomotives and Marine Engines Are Covered?
- B. What Standards Are We Adopting?
- C. Are the Standards Feasible?

IV. Certification and Compliance Program
- A. Issues Common to Locomotives and Marine Engines
- B. Compliance Issues Specific to Locomotives
- C. Compliance Issues Specific to Marine Engines

V. Costs and Economic Impacts
- A. Engineering Costs
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VI. Benefits

VII. Alternative Program Options
- A. Summary of Alternatives
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VIII. Public Participation

IX. Statutory and Executive Order Reviews
- A. Executive Order 12866: Regulatory Planning and Review
- B. Paperwork Reduction Act
- C. Regulatory Flexibility Act
- D. Unfunded Mandates Reform Act
- E. Executive Order 13132 (Federalism)
- F. Executive Order 13175 (Consultation and Coordination With Indian Tribal Governments)
- G. Executive Order 13045: Protection of Children From Environmental Health and Safety Risks
- H. Executive Order 13211: Actions That Significantly Affect Energy Supply, Distribution, or Use
- I. National Technology Transfer Advancement Act
- J. Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations
- K. Congressional Review Act

X. Statutory Provisions and Legal Authority


## I. Overview

This final rule completes an important step in EPA's ongoing National Clean Diesel Campaign (NCDC) by adding new programs for locomotives and marine diesel engines to the clean diesel initiatives we have already undertaken for highway, other nonroad, and stationary diesel engines. As detailed below, it significantly strengthens the locomotive and marine diesel programs we proposed last year (72 FR 15938, April 3, 2007), especially in controlling emissions during the critical early years through the early introduction of advanced technologies and the more complete coverage of existing engines. When fully implemented, this coordinated set of new programs will reduce harmful diesel engine emissions to a small fraction of their previous levels.

The new programs address all types of diesel locomotives— line-haul, switch, and passenger rail, and all types of marine diesel engines below 30 liters per cylinder displacement (hereafter referred to as ''marine diesel engines'').[2] These engines are used to power a wide variety of vessels, from small fishing and recreational boats to large tugs and Great Lakes freighters. They are also used to generate auxiliary vessel power, including on ocean-going ships.

Emissions of fine particulate matter ($PM_{2.5}$) and nitrogen oxides ($NO_X$) from these diesel engines contribute to nonattainment of the National Ambient Air Quality Standards (NAAQS) for $PM_{2.5}$ and ozone. Today, locomotives and marine diesel engines account for about 20 percent of mobile source $NO_X$ emissions and 25 percent of mobile source diesel $PM_{2.5}$ emissions in the U.S. Absent this final action, by 2030 the relative contributions of $NO_X$ and $PM_{2.5}$ from these engines would have grown to 35 and 65 percent, respectively.

We are finalizing a comprehensive three-part program to address this problem. First, we are adopting stringent emission standards for existing locomotives and for existing commercial marine diesel engines above 600 kilowatt (kW) (800 horsepower (hp)). These standards apply when the engines are remanufactured. This part of the program will take effect as soon as certified remanufacture systems are available, for some engines as early as a few months from now. Under our existing program, locomotives have been certified to one of three tiers of standards: Tier 0 for locomotives originally built between 1973 and 2001, Tier 1 for those built between 2002 and 2004, and Tier 2 for those built in or after 2005. Under this new program, certified locomotive remanufacture systems must be made available by 2010 for Tier 0 and Tier 1 locomotives, and by 2013 for Tier 2 locomotives. Remanufacture systems that are certified for use in marine engine remanufactures are likewise required to be used. We are not, however, setting a specific compliance date for certified marine diesel remanufacture systems because we expect that engine manufacturers will be well motivated by the market opportunity to certify emissions-compliant systems.

Second, we are adopting a set of near-term emission standards, referred to as Tier 3, for newly-built locomotives and marine engines. The Tier 3 standards reflect the application of technologies to reduce engine-out particulate matter (PM) and $NO_X$.

Third, we are adopting longer-term standards, referred to as Tier 4, for newly-built locomotives and marine

[2] Marine diesel engines at or above 30 liters per cylinder, called Category 3 engines, are typically used for propulsion power on ocean-going ships. EPA is addressing Category 3 engines through separate actions, including a planned rulemaking for a new tier of federal standards (see Advance Notice of Proposed Rulemaking published December 7, 2007 at 72 FR 69522) and participation on the U.S. delegation to the International Maritime Organization for negotiations of new international standards (see *http://www.epa.gov/otaq/oceanvessels.com* for information on both of those actions), as well as EPA's Clean Ports USA Initiative (see *http://www.epa.gov/cleandiesel/ports/index.htm*).

engines. Tier 4 standards reflect the application of high-efficiency catalytic aftertreatment technology enabled by the availability of ultra-low sulfur diesel fuel (ULSD). These standards take effect in 2015 for locomotives, and phase in over time for marine engines, beginning in 2014. Finally, we are adopting provisions in all three parts of the program to eliminate emissions from unnecessary locomotive idling.

Locomotives and marine diesel engines designed to these Tier 4 standards will achieve PM reductions of 90 percent and $NO_X$ reductions of 80 percent, compared to engines meeting the current Tier 2 standards. The new standards will also yield sizeable reductions in emissions of nonmethane hydrocarbons (NMHC), carbon monoxide (CO), and hazardous compounds known as air toxics. Table I–1 summarizes the PM and $NO_X$ emission reductions for the new standards compared to today's (Tier 2) emission standards; for remanufactured engines, the comparison is to the current standards for each tier of locomotives covered, and to typical unregulated levels for marine engines.

TABLE I–1.—REDUCTIONS FROM LEVELS OF EXISTING STANDARDS

| Sector | Standards tier | PM (percent) | $NO_X$ (percent) |
|---|---|---|---|
| Locomotives | Remanufactured Tier 0 | 60 | 15–20. |
| | Remanufactured Tier 1 | 50 | |
| | Remanufactured Tier 2 | 50 | |
| | Tier 3 | 50 | |
| | Tier 4 | 90 | 80. |
| | All tiers—idle emissions | 50 | 50. |
| Marine Diesel Engines [a] | Remanufactured Engines | 25–60 | Up to 20. |
| | Tier 3 | 50 | 20. |
| | Tier 4 | 90 | 80. |

**Note:** (a) Standards vary by displacement and within power categories. Reductions indicated are typical.

On a nationwide annual basis, these reductions will amount to 800,000 tons of $NO_X$ and 27,000 tons of PM by 2030, resulting annually in the prevention of up to 1,100 PM-related premature deaths, 280 ozone-related premature deaths, 120,000 lost work days, 120,000 school day absences, and 1.1 million minor restricted-activity days. We estimate the annual monetized health benefits of this rule in 2030 will range from $9.2 billion to $11 billion, assuming a 3 percent discount rate, or between $8.4 billion to $10 billion, assuming a 7% discount rate.[3] The estimated annual social cost of the program in 2030 is projected to be $740 million, significantly less than the estimated benefits.

*A. What Is EPA Finalizing and How Does it Differ From the Proposal?*

This final rule makes a number of important changes to the program set out in our Notice of Proposed Rulemaking (NPRM). Among these are changes that will yield significantly greater overall $NO_X$ and PM reductions, especially in the critical early years of the program: The adoption of standards for remanufactured marine engines and a 2-year pull-ahead of the Tier 4 $NO_X$ requirements for line-haul locomotives and for 2000–3700 kW (2760–4900 hp) marine engines.

The major elements of the final program are summarized below. We are also revising existing testing, certification, and compliance provisions to better ensure emissions control in use. Detailed provisions and our justifications for them are discussed in sections III and IV. Section VII of this preamble describes a number of alternatives that we considered in developing the rule. After evaluating the alternatives, we believe that our new program provides the best opportunity for achieving timely and very substantial emissions reductions from locomotive and marine diesel engines. It balances a number of key factors: (1) Achieving very significant emissions reductions as early as possible, (2) providing appropriate lead time to develop and apply advanced control technologies, and (3) coordinating requirements in this final rule with existing highway and nonroad diesel engine programs. The provisions we are finalizing that are different from the proposed program are:

- The adoption of standards for remanufactured marine diesel engines to address emissions from the existing fleet (this was presented as one of the proposal alternatives),
- Inclusion of Tier 4 $NO_X$ controls on 2015–2016 model year locomotives at initial build rather than at first remanufacture,
- A two-year pull-ahead of the Tier 4 $NO_X$ standard for 2000–3700 kW marine engines to 2014,
- Inclusion of Class II railroads in the remanufactured locomotives program,
- No Tier 4 standards for the small fleet of large recreational vessels at this time,
- A revised approach to migratory vessels that spend part of their time overseas,
- Credit for locomotive design measures that reduce emissions as part of efforts to improve efficiency,
- A number of changes to test and compliance requirements detailed in sections III and IV.

Overall, our comprehensive three-part approach to setting standards for locomotives and marine diesel engines will provide very large reductions in PM, $NO_X$, and toxic compounds, both in the near-term (as early as 2008), and in the long-term. These reductions will be achieved in a manner that: (1) Leverages technology developments in other diesel sectors, (2) aligns well with the clean diesel fuel requirements already being implemented, and (3) provides the lead time needed to deal with the significant engineering design workload that is involved.

(1) Locomotive Emission Standards

We are setting stringent exhaust emission standards for newly-built and remanufactured locomotives, furthering the initiative for cleaner locomotives started in 2004 with the establishment of the ULSD locomotive fuel program, and adding this important category of engines to the highway and nonroad diesel applications already covered

[3] Low and high benefits estimates are derived from a range of ozone-related premature mortality studies (including an assumption of no causality) and $PM_{2.5}$-related premature mortality based on the ACS study (Pope et al., 2002). Benefits also include $PM_{2.5}$- and ozone-related morbidity benefits. See section VI for a complete discussion and analysis of benefits associated with the final rule.

under EPA's National Clean Diesel Campaign.

Briefly, for newly-built line-haul locomotives we are setting a new Tier 3 PM standard of 0.10 grams per brake horsepower-hour (g/bhp-hr), based on improvements to existing engine designs. This standard will take effect in 2012. We are also setting new Tier 4 standards of 0.03 g/bhp-hr for PM and 1.3 g/bhp-hr for $NO_X$, based on the evolution of high-efficiency catalytic aftertreatment technologies now being developed and introduced in the highway diesel sector. The Tier 4 standards will take effect in 2015. We are requiring that remanufactured Tier 2 locomotives meet a PM standard of 0.10 g/bhp-hr, based on the same engine design improvements as Tier 3 locomotives, and that remanufactured Tier 0 and Tier 1 locomotives meet a 0.22 g/bhp-hr PM standard. We are also requiring that remanufactured Tier 0 locomotives meet a $NO_X$ standard of 7.4 g/bhp-hr, the same level as current Tier 1 locomotives, or 8.0 g/bhp-hr if the locomotive is not equipped with a separate loop intake air cooling system. Section III provides a detailed discussion of these new standards, and section IV details improvements being made to the applicable test, certification, and compliance programs.

In setting our original locomotive emission standards in 1998, the historic pattern of transitioning older line-haul locomotives to road- and yard-switcher service resulted in our making little distinction between line-haul and switch locomotives. Because of the increase in the size of new locomotives in recent years, that pattern cannot be sustained by the railroad industry, as today's 4000+ hp (3000+ kW) locomotives are poorly suited for switcher duty. Furthermore, although there is still a fairly sizeable legacy fleet of older smaller line-haul locomotives that could find their way into the switcher fleet, essentially the only newly-built switchers put into service over the last two decades have been of radically different design, employing one to three smaller high-speed diesel engines designed for use in nonroad applications. We are establishing new standards and special certification provisions for newly-built and remanufactured switch locomotives that take these factors into account.

Locomotives spend a substantial amount of time idling, during which they emit harmful pollutants, consume fuel, create noise, and increase maintenance costs. We are requiring that idle controls, such as Automatic Engine Stop/Start Systems (AESS), be included on all newly-built Tier 3 and Tier 4 locomotives. We also are requiring that they be installed on all existing locomotives that are subject to the new remanufactured engine standards, at the point of first remanufacture under the standards, unless already equipped with idle controls. Additional idle emissions control beyond AESS is encouraged in our program by factoring it into the certification test program.

(2) Marine Engine Emission Standards

We are setting emissions standards for newly-built and remanufactured marine diesel engines with displacements up to 30 liters per cylinder (referred to as Category 1 and 2, or C1 and C2, engines). Newly-built engines subject to the new standards include those used in commercial, recreational, and auxiliary power applications, and those below 37 kW (50 hp) that were previously regulated in our nonroad diesel program.

The new marine diesel engine standards include stringent engine-based Tier 3 standards for newly-built marine diesel engines that phase in beginning in 2009. These are followed by aftertreatment-based Tier 4 standards for engines above 600 kW (800 hp) that phase in beginning in 2014. The specific levels and implementation dates for the Tier 3 and Tier 4 standards vary by engine size and power. This yields an array of emission standards levels and start dates that help ensure the most stringent standards feasible at the earliest possible time for each group of newly-built marine engines, while helping engine and vessel manufacturers implement the program in a manner that minimizes their costs for emission reductions. The new standards and implementation schedules, as well as their technological feasibility, are described in detail in section III of this preamble.

We are also adopting standards to address the considerable impact of emissions from large marine diesel engines installed in vessels in the existing fleet. These standards apply to commercial marine diesel engines above 600 kW when these engines are remanufactured, and take effect as soon as certified remanufacture systems are available. The final requirements are different from the programmatic alternative on which we sought comment in that there is no mandatory date by which marine remanufacture systems must be made available. However, systems for the larger Category 2 marine diesel engines are expected to become available at the same time as the locomotive remanufacture systems for similar engines, as early as 2008, because Category 2 marine diesel engines are often derived from locomotive engines. This new marine remanufacture program is described in more detail in section III.B(2)(b). We intend to revisit this program in the future to evaluate the extent to which remanufacture systems are being introduced into the market without a mandatory requirement, and to determine if the program should be extended to small commercial and recreational engines as well.

Taken together, the program elements described above constitute a comprehensive program that addresses the problems caused by locomotive and marine diesel emissions from both a near-term and long-term perspective. It does this while providing for an orderly and cost-effective implementation schedule for the railroads, vessel owners, manufacturers, and remanufacturers.

*B. Why Is EPA Taking This Action?*

(1) Locomotives and Marine Diesels Contribute to Serious Air Pollution Problems

As we discuss extensively in both the proposal and today's action, EPA strongly believes it is appropriate to take steps now to reduce future emissions from locomotive and marine diesel engines. Emissions from these engines generate significant emissions of $PM_{2.5}$ and $NO_X$ that contribute to nonattainment of the National Ambient Air Quality Standards for $PM_{2.5}$ and ozone. $NO_X$ is a key precursor to ozone and secondary PM formation. These engines also emit hazardous air pollutants or air toxics, which are associated with serious adverse health effects. Finally, emissions from locomotive and marine diesel engines cause harm to public welfare, including contributing to visibility impairment and other harmful environmental impacts across the U.S.

The health and environmental effects associated with these emissions are a classic example of a negative externality (an activity that imposes uncompensated costs on others). With a negative externality, an activity's social cost (the cost borne to society imposed as a result of the activity taking place) exceeds its private cost (the cost to those directly engaged in the activity). In this case, as described below and in section II, emissions from locomotives and marine diesel engines and vessels impose public health and environmental costs on society. However, these added costs are not reflected in the costs of those using

these engines and equipment. The current market and regulatory scheme do not correct this externality because firms in the market are rewarded for minimizing their production costs, including the costs of pollution control, and do not benefit from reductions in emissions. In addition, firms that may take steps to use equipment that reduces air pollution may find themselves at a competitive disadvantage compared to firms that do not. The emission standards that EPA is finalizing help address this market failure and reduce the negative externality from these emissions by providing a regulatory incentive for engine and locomotive manufacturers to produce engines and locomotives that emit fewer harmful pollutants and for railroads and vessel builders and owners to use those cleaner engines.

Emissions from locomotive and marine diesel engines account for substantial portions of the country's current ambient $PM_{2.5}$ and $NO_X$ levels. We estimate that today these engines account for about 20 percent of mobile source $NO_X$ emissions and about 25 percent of mobile source diesel $PM_{2.5}$ emissions. Under this rulemaking, by 2030, $NO_X$ emissions from these diesel engines will be reduced annually by 800,000 tons and $PM_{2.5}$ emissions by 27,000 tons, and these reductions will grow beyond 2030 as fleet turnover to the cleanest engines continues.

EPA has already taken steps to bring emissions levels from highway and nonroad diesel vehicles and engines to very low levels over the next decade, while the per horsepower-hour emission levels for locomotive and marine diesel engines remain at much higher levels—comparable to the emissions for highway trucks in the early 1990s.

Both ozone and $PM_{2.5}$ contribute to serious public health problems, including premature mortality, aggravation of respiratory and cardiovascular disease (as indicated by increased hospital admissions and emergency room visits, school absences, loss work days, and restricted activity days), changes in lung function and increased respiratory symptoms, altered respiratory defense mechanisms, and chronic bronchitis. Diesel exhaust is of special public health concern, and since 2002 EPA has classified exposure to diesel exhaust as likely to be carcinogenic to humans by inhalation from environmental exposures.[4] Recent studies are showing that populations living near large diesel emission sources such as major roadways, rail yards, and marine ports are likely to experience greater diesel exhaust exposure levels than the overall U.S. population, putting them at greater health risks.[5, 6]

EPA recently conducted an initial screening-level analysis[7] of selected marine port areas and rail yards to better understand the populations that are exposed to diesel particulate matter (DPM) emissions from these facilities.[8, 9] This screening-level analysis focused on a representative selection of national marine ports and rail yards.[10] Of the 47 marine ports and 37 rail yards selected, the results indicate that at least 13 million people, including a disproportionate number of low-income households, African-Americans, and Hispanics, living in the vicinity of these facilities, are being exposed to ambient DPM levels that are 2.0 $\mu g/m^3$ and 0.2 $\mu g/m^3$ above levels found in areas further from these facilities. Because those populations exposed to DPM emissions from marine ports and rail yards are more likely to be low-income and minority residents, these populations will benefit from the controls being finalized in this action. The detailed findings of this study are available in the public docket for this rulemaking.

Today, millions of Americans continue to live in areas that do not meet existing air quality standards. Currently, ozone concentrations exceeding the 8-hour ozone NAAQS occur over wide geographic areas, including most of the nation's major population centers. As of October 10, 2007, approximately 88 million people live in 39 designated areas (which include all or part of 208 counties) that either do not meet the current $PM_{2.5}$ NAAQS or contribute to violations in other counties, and 144 million people live in 81 areas (which include all or part of 368 counties) designated as not in attainment for the 8-hour ozone NAAQS. These numbers do not include the people living in areas where there is a significant future risk of failing to maintain or achieve either the current or future $PM_{2.5}$ or ozone NAAQS.

In addition to public health impacts, there are public welfare and environmental impacts associated with ozone and $PM_{2.5}$ emissions. Ozone causes damage to vegetation which leads to crop and forestry economic losses, as well as harm to national parks, wilderness areas, and other natural systems. $NO_X$ and direct emissions of $PM_{2.5}$ can contribute to the impairment of visibility in many parts of the U.S., where people live, work, and recreate, including national parks, wilderness areas, and mandatory class I federal areas. The deposition of airborne particles can also reduce the aesthetic appeal of buildings and culturally important objects through soiling and can contribute directly (or in conjunction with other pollutants) to structural damage by means of corrosion or erosion. Finally, $NO_X$ emissions from diesel engines contribute to the acidification, nitrification, and eutrophication of water bodies.

While EPA has already adopted many emission control programs that are expected to reduce ambient ozone and $PM_{2.5}$ levels, including the Clean Air Interstate Rule (CAIR) (70 FR 25162, May 12, 2005) and the Clean Air Nonroad Diesel Rule (69 FR 38957, June 29, 2004), the Heavy Duty Engine and Vehicle Standards and Highway Diesel Fuel Sulfur Control Requirements (66 FR 5002, Jan. 18, 2001), and the Tier 2 Vehicle and Gasoline Sulfur Program

[4] U.S. EPA (2002) Health Assessment Document for Diesel Engine Exhaust. EPA/600/8–90/057F. Office of Research and Development, Washington DC. This document is available electronically at *http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=29060.*

[5] Kinnee, E.J.; Touman, J.S.; Mason, R.; Thurman, J.; Beidler, A.; Bailey, C.; Cook, R. (2004) Allocation of onroad mobile emissions to road segments for air toxics modeling in an urban area. Transport. Res. Part D 9: 139–150.

[6] State of California Air Resources Board. Roseville Rail Yard Study. Stationary Source Division, October 14, 2004. This document is available electronically at: *http://www.arb.ca.gov/diesel/documents/rrstudy.htm* and State of California Air Resources Board. Diesel Particulate Matter Exposure Assessment Study for the Ports of Los Angeles and Long Beach, April 2006. This document is available electronically at: *http://www.arb.ca.gov/regact/marine2005/portstudy0406.pdf.*

[7] This type of screening-level analysis is an inexact tool and not appropriate for regulatory decisionmaking; it is useful in beginning to understand potential impacts and for illustrative purposes. Additionally, the emissions inventories used as inputs for the analyses are not official estimates and likely underestimate overall emissions because they are not inclusive of all emission sources at the individual ports in the sample. For example, most inventories included emissions from ocean-going vessels (powered by Category 3 engines), as well as some commercial vessel categories, including harbor crafts, (powered by Category 1 and 2 engines), cargo handling equipment, locomotives, and heavy-duty vehicles. This final rule will not address emissions from ocean-going vessels, cargo handling equipment or heavy-duty vehicles.

[8] ICF International. September 28, 2007. Estimation of diesel particulate matter concentration isopleths for marine harbor areas and rail yards. Memorandum to EPA under Work Assignment Number 0–3, Contract Number EP–C–06–094. This memo is available in Docket EPA–HQ–OAR–2003–0190.

[9] ICF International. September 28, 2007. Estimation of diesel particulate matter population exposure near selected harbor areas and rail yards. Memorandum to EPA under Work Assignment Number 0–3, Contract Number EP–C–06–094. This memo is available in Docket EPA–HQ–OAR–2003–0190.

[10] The Agency selected a representative sample of the top 150 U.S. ports including coastal, inland, and Great Lake ports. In selecting a sample of rail yards the Agency identified a subset from the hundreds of rail yards operated by Class I Railroads.

(65 FR 6698, Feb. 10, 2000), the additional $PM_{2.5}$ and $NO_X$ emission reductions resulting from this rule will assist states in attaining and maintaining the Ozone and the $PM_{2.5}$ NAAQS both near term and in the decades to come.

In September 2006, EPA finalized revised $PM_{2.5}$ NAAQS standards and over the next few years the EPA will undergo the process of designating areas that do not meet this new standard. EPA modeling, conducted as part of finalizing the revised NAAQS, projects that in 2015 up to 52 counties with 53 million people may violate either the daily or annual standards for $PM_{2.5}$ (or both), while an additional 27 million people in 54 counties may live in areas that have air quality measurements within 10 percent of the revised NAAQS. Even in 2020 up to 48 counties, with 54 million people, may still not be able to meet the revised $PM_{2.5}$ NAAQS and an additional 25 million people, living in 50 counties, are projected to have air quality measurements within 10 percent of the revised standards. The locomotive and marine diesel $PM_{2.5}$ reductions resulting from this rulemaking are needed by a number of states to both attain and maintain the revised $PM_{2.5}$ NAAQS.

State and local governments continue working to protect the health of their citizens and comply with requirements of the Clean Air Act (CAA or ''the Act''). As part of this effort they recognize the need to secure additional major reductions in both diesel $PM_{2.5}$ and $NO_X$ emissions by undertaking numerous state-level actions.[11] However, they have also urged Agency action to finalize a strong locomotive and marine diesel engine program that will provide crucial emission reductions both in the near and long-term.

The federal program finalized today results in earlier and significantly greater $NO_X$ and PM reductions from the locomotive and marine sector than the proposed program because of the first-ever national standards for remanufactured marine engines and the starting of Tier 4 $NO_X$ requirements for line-haul locomotives and for 2000–3700 kW (2760–4900 hp) marine engines two years earlier than proposed. These changes reflect important cooperative efforts by the regulated industry to implement cleaner technology as early as possible. While the program finalized today will help many states and communities achieve cleaner air, for some areas, such as the South Coast of California, the reductions achieved through this rule will not alone enable them to meet their near-term ozone and PM air quality goals. This was also the case for our 1998 locomotive rulemaking, where the State of California worked with Class I railroads operating in southern California to develop a Memoranda of Understanding (MOU) ensuring that the cleanest technologies enabled by federal rules were expeditiously introduced in areas of California with greatest air quality improvement needs. EPA continues to support California's efforts to reconcile likely future growth in the locomotive and marine sector with the public health protection needs of the area, and today's final rule includes provisions which are well-suited to encouraging early deployment of cleaner technologies through the development of similar programs.

In addition to these new standards, EPA has a number of voluntary programs that help enable government, industry, and local communities to address challenging air quality problems. The EPA SmartWay program has worked with railroads to encourage them to reduce unnecessary locomotive idling and will continue to promote the use of innovative idle reduction technologies that can substantially reduce locomotive emissions while reducing fuel consumption. EPA's National Clean Diesel Campaign, through its Clean Ports USA program is working with port authorities, terminal operators, and trucking and rail companies to promote cleaner diesel technologies and emission reduction strategies through education, incentives, and financial assistance. Part of these efforts involves voluntary retrofit programs that can further reduce emissions from the existing fleet of diesel engines. Finally, EPA is implementing a new Sustainable Ports Strategy which will allow EPA to partner with ports, business partners, communities and other stakeholders to become world leaders in sustainability, including achieving cleaner air. This new strategy builds on the success of collaborative work EPA has been doing in partnership with the American Association of Port Authorities (AAPA), and through port related efforts of Clean Ports USA, SmartWay, EPA's Regional Diesel Collaboratives and other programs. Together these approaches augment the regulations being finalized today, helping states and communities achieve larger reductions sooner in the areas of our country that need them the most.

(2) Advanced Technologies Can Be Applied

Air pollution from locomotive and marine diesel exhaust is a challenging problem. However, we believe it can be addressed effectively through a combination of engine-out emission reduction technologies and high-efficiency catalytic aftertreatment technologies. As discussed in greater detail in section III.C, the development of these aftertreatment technologies for highway and nonroad diesel applications has advanced rapidly in recent years, so that new engines can achieve very large emission reductions in PM and $NO_X$ (in excess of 90 and 80 percent, respectively).

High-efficiency PM control technologies are being broadly used in many parts of the world and are being used domestically to comply with EPA's heavy-duty truck standards that started taking effect in the 2007 model year. These technologies are highly durable and robust in use and have proved extremely effective in reducing exhaust hydrocarbon (HC) and carbon monoxide emissions.

Control of $NO_X$ emissions from locomotive and marine diesel engines can also be achieved with high-efficiency exhaust emission control technologies. Such technologies are expected to be used to meet the stringent $NO_X$ standards included in EPA's heavy-duty highway diesel and nonroad Tier 4 programs and have been in production for heavy-duty trucks in Europe since 2005 and in many stationary source applications throughout the world.

Section III.C discusses additional engineering challenges in applying these technologies to newly-built locomotive and marine engines, as well as the development steps that we expect to be taken to resolve the challenges. With the lead time available and the assurance of ULSD for the locomotive and marine sectors in 2012, as provided by our 2004 final rule for nonroad engines and fuel, we are confident the application of advanced technology to locomotives and marine diesel engines will proceed at a reasonable rate of progress and will result in systems capable of achieving the new standards on time.

(3) Basis for Action Under the Clean Air Act

Authority for the actions promulgated in this document is granted to the EPA

[11] Two examples of state and local actions are: California Air Resources Board (2006). Emission Reduction Plan for Ports and Goods Movements (April 2006), Available electronically at *www.arb.ca.gov/gmp/docs/finalgmpplan090905.pdf*; Connecticut Department of Environmental Protection (2006). Connecticut's Clean Diesel Plan (January 2006). See *http://www.dep.state.ct.us/air2/diesel/index.htm* for description of initiative.

by sections 114, 203, 205, 206, 207, 208, 213, 216, and 301(a) of the Clean Air Act as amended in 1990 (42 U.S.C. 7414, 7522, 7524, 7525, 7541, 7542, 7547, 7550 and 7601(a)).

*Authority to Set Standards.* EPA is promulgating emissions standards for new marine diesel engines pursuant to its authority under section 213(a)(3) and (4) of the CAA. EPA is promulgating emission standards for new locomotives and new engines used in locomotives pursuant to its authority under section 213(a)(5) of the CAA.

EPA has previously determined that certain existing locomotive engines, when they are remanufactured, are returned to as-new condition and are expected to have the same performance, durability, and reliability as freshly-manufactured locomotive engines. Consequently we set emission standards for these remanufactured engines that apply at the time of remanufacture (defined as ''to replace, or inspect and qualify, each and every power assembly of a locomotive or locomotive engine, whether during a single maintenance event or cumulatively within a five-year period * * *'' (see 61 FR 53102, October 4, 1996; 40 CFR 92.2). In this action we are adopting new tiers of standards for both freshly manufactured and remanufactured locomotives and locomotive engines.

In the proposal for this rulemaking we also discussed applying a similar approach to marine diesel engines. Many marine diesel engines, particularly those above 600 kW (800 hp), periodically undergo a maintenance process that returns them to as-new condition. A full rebuild that brings an engine back to as-new condition includes a complete overhaul of the engine, including piston, rings, liners, turbocharger, heads, bearings, and geartrain/camshaft removal and replacement. Engine manufacturers typically provide instructions for such a full rebuild. Marine diesel engine owners complete this process to maintain engine reliability, durability, and performance over the life of their vessel, and to avoid the need to repower (replace the engine) before their vessel wears out. A commercial marine vessel can be in operation in excess of 40 years, which means that a marine diesel engine may be remanufactured to as-new condition three or more times before the vessel is scrapped.

Because these remanufactured engines are returned to as-new condition, section 213(a)(3) and (4) give EPA the authority to set emission standards for those engines. We are adopting requirements for remanufactured marine diesel engines, described in section III.B(2)(b) of this action. For the purpose of this program, we are defining remanufacture as the replacement of all cylinder liners, either in one maintenance event or over the course of five years (for the purpose of this program, ''replacement'' includes the removing, inspecting and requalifying a liner). While replacement of cylinder liners is only one element of a full rebuild, it is common to all rebuilds. Marine diesel engines that do not have their cylinder liners replaced all at once or within a five-year period, or that do not perform cylinder liner replacement at all, are not considered to be returned to as-new condition and therefore are not considered to be remanufactured. Those engines will not be subject to the marine remanufacture requirements.

*Pollutants That Can Be Regulated.* CAA section 213(a)(3) directs the Administrator to set $NO_X$, volatile organic compounds (VOCs), or carbon monoxide standards for classes or categories of engines such as marine diesel engines that contribute to ozone or carbon monoxide concentrations in more than one nonattainment area. These ''standards shall achieve the greatest degree of emission reduction achievable through the application of technology which the Administrator determines will be available for the engines or vehicles, giving appropriate consideration to cost, lead time, noise, energy, and safety factors associated with the application of such technology.''

CAA section 213(a)(4) authorizes the Administrator to establish standards to control emissions of pollutants which ''may reasonably be anticipated to endanger public health and welfare'' where the Administrator determines, as it has done for emissions of PM, that nonroad engines as a whole contribute significantly to such air pollution. The Administrator may promulgate regulations that are deemed appropriate, taking into account costs, noise, safety, and energy factors, for classes or categories of new nonroad vehicles and engines which cause or contribute to such air pollution.

*Level of the Standards.* CAA section 213(a)(5) directs EPA to adopt emission standards for new locomotives and new engines used in locomotives that achieve the ''greatest degree of emissions reductions achievable through the use of technology that the Administrator determines will be available for such vehicles and engines, taking into account the cost of applying such technology within the available time period, the noise, energy, and safety factors associated with the applications of such technology.'' Section 213(a)(5) does not require any review of the contribution of locomotive emissions to pollution, though EPA does provide such information in this rulemaking. As described in section III of this preamble and in chapter 4 of the final Regulatory Impact Analysis (RIA), EPA has evaluated the available information to determine the technology that will be available for locomotives and engines subject to EPA standards.

*Certification and Implementation.* EPA is also acting under its authority to implement and enforce both the marine diesel emission standards and the locomotive emission standards. Section 213(d) provides that the standards EPA adopts for both new locomotive and marine diesel engines ''shall be subject to sections 206, 207, 208, and 209'' of the Clean Air Act, with such modifications that the Administrator deems appropriate to the regulations implementing these sections. In addition, the locomotive and marine standards ''shall be enforced in the same manner as [motor vehicle] standards prescribed under section 202'' of the Act. Section 213(d) also grants EPA authority to promulgate or revise regulations as necessary to determine compliance with, and enforce, standards adopted under section 213.

*Technological Feasibility and Cost of Standards.* The evidence provided in section III.C of this Preamble and in chapter 4 of the RIA indicates that the stringent emission standards we are setting today for newly-built and remanufactured locomotive and marine diesel engines are feasible and reflect the greatest degree of emission reduction achievable through the use of technology that will be available in the model years to which they apply. We have given appropriate consideration to costs in setting these standards. Our review of the costs and cost-effectiveness of these standards indicate that they will be reasonable and comparable to the cost-effectiveness of other emission reduction strategies that EPA has required in prior rulemakings. We have also reviewed and given appropriate consideration to the energy factors of this rule in terms of fuel efficiency as well as any safety and noise factors associated with these standards.

*Health and Environmental Need for the Standards.* The information in section II of this Preamble and chapter 2 of the RIA regarding air quality and public health impacts provides strong evidence that emissions from marine diesel engines and locomotives significantly and adversely impact public health or welfare. EPA has

already found in previous rules that emissions from new marine diesel engines contribute to ozone and carbon monoxide concentrations in more than one area which has failed to attain the ozone and carbon monoxide NAAQS (64 FR 73300, December 29, 1999). EPA has also previously determined that it is appropriate to establish PM standards for marine diesel engines under section 213(a)(4), and the additional information on the carcinogenicity of exposure to diesel exhaust noted above reinforces this finding. In addition, we have already found that emissions from nonroad engines as a whole significantly contribute to air pollution that may reasonably be anticipated to endanger public welfare due to regional haze and visibility impairment (67 FR 68241, Nov. 8, 2002). We find here, based on the information in the NPRM and in section II of this preamble and Chapters 2 and 3 of the final RIA, that emissions from the new marine diesel engines likewise contribute to regional haze and to visibility impairment.

The PM and $NO_X$ emission reductions resulting from these standards are important to states' efforts in attaining and maintaining the ozone and the $PM_{2.5}$ NAAQS in the near term and in the decades to come. As noted above, the risk to human health and welfare will be significantly reduced by the standards finalized in today's action.

## II. Air Quality and Health Impacts

The locomotive and marine diesel engines subject to this final rule generate significant emissions of particulate matter (PM) and nitrogen oxides ($NO_X$) that contribute to nonattainment of the National Ambient Air Quality Standards (NAAQS) for $PM_{2.5}$ and ozone. These engines also emit hazardous air pollutants or air toxics that are associated with serious adverse health effects and contribute to visibility impairment and other harmful environmental impacts across the U.S.

By 2030, these standards are expected to reduce annual locomotive and marine diesel engine $PM_{2.5}$ emissions by 27,000 tons; $NO_X$ emissions by 800,000 tons; and volatile organic compound (VOC) emissions by 43,000 tons as well as reducing carbon monoxide (CO) and toxic compounds known as air toxics.[12]

We project that reductions of $PM_{2.5}$, $NO_X$, and VOC emissions from locomotive and marine diesel engines will produce nationwide air quality improvements. According to air quality modeling performed in conjunction with this rule, all 39 current $PM_{2.5}$ nonattainment areas will experience a decrease in their projected 2030 design values. Likewise the 133 mandatory class I federal areas that EPA modeled will all see improvements in their visibility. This rule will also result in nationwide ozone benefits. In 2030, 573 counties (of 579 that have monitored data) experience at least a 0.1 ppb decrease in their ozone design values.

### *A. Overview*

From a public health perspective, we are concerned with locomotive and marine diesel engines' contributions to atmospheric levels of particulate matter in general, diesel $PM_{2.5}$ in particular, various gaseous air toxics, and ozone. Today, locomotive and marine diesel engine emissions represent a substantial portion of the U.S. mobile source diesel $PM_{2.5}$ and $NO_X$ inventories, approximately 20 percent of mobile source $NO_X$ and 25 percent of mobile source diesel $PM_{2.5}$. Over time, the relative contribution of these diesel engines to air quality problems is expected to increase as the emission contribution from other mobile sources decreases and the usage of locomotives and marine vessels increases. By 2030, without the additional emissions controls finalized in today's rule, locomotive and marine diesel engines will emit about 65 percent of the total mobile source diesel $PM_{2.5}$ emissions and 35 percent of the total mobile source $NO_X$ emissions.

Based on the most recent data available for this rule, air quality problems continue to persist over a wide geographic area of the United States. As of October 10, 2007 there are approximately 88 million people living in 39 designated areas (which include all or part of 208 counties) that either do not meet the current $PM_{2.5}$ NAAQS or contribute to violations in other counties, and 144 million people living in 81 areas (which include all or part of 366 counties) designated as not in attainment for the 8-hour ozone NAAQS. These numbers do not include the people living in areas where there is a significant future risk of failing to maintain or achieve either the current or future $PM_{2.5}$ or ozone NAAQS. Figure II–1 illustrates the widespread nature of these problems. This figure depicts counties which are currently designated nonattainment for either or both the 8-hour ozone NAAQS and $PM_{2.5}$ NAAQS. It also shows the location of mandatory class I federal areas for visibility.

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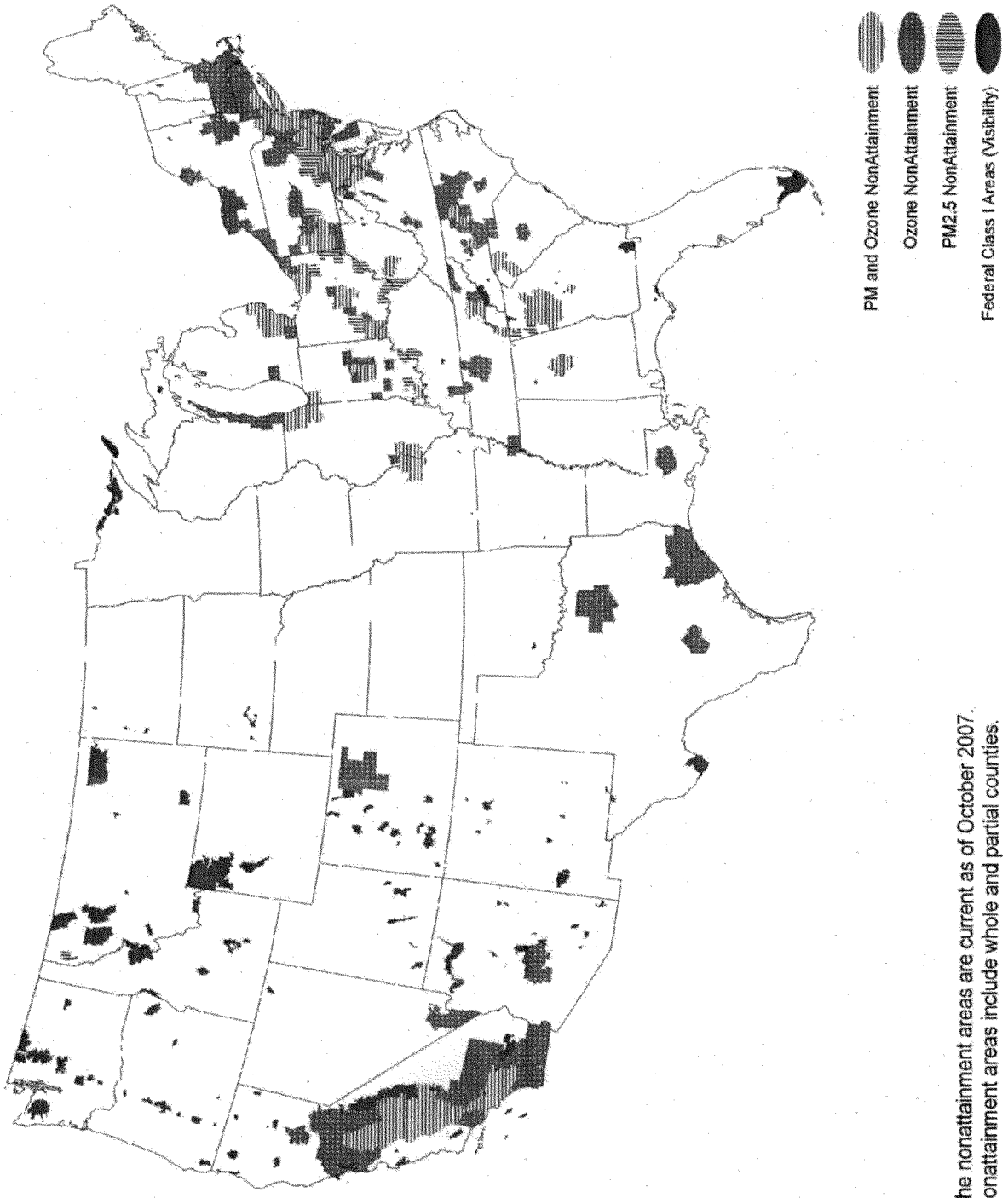
[12] Nationwide locomotive and marine diesel engines comprise approximately 3 percent of the nonroad mobile sources hydrocarbon inventory. EPA National Air Quality and Emissions Trends Report 1999. March 2001, Document Number: EPA 454/R–0–004. This document is available in Docket EPA–HQ–OAR–2003–0190. This document is available electronically at: *http://www.epa.gov/air/airtrends/aqtrnd99/*.

**Figure II-1 Air Quality Problems are Widespread**




* The nonattainment areas are current as of October 2007. Nonattainment areas include whole and partial counties.

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The engine standards finalized in this rule will help reduce emissions of PM, $NO_X$, VOCs, CO, and air toxics and their associated health and environmental effects. Emissions from locomotives and diesel marine engines contribute to PM and ozone concentrations in many, if not all, of these nonattainment areas.[13] The engine standards being finalized today will become effective as early as 2008, making the expected $PM_{2.5}$, $NO_X$, and VOC inventory reductions from this rulemaking critical to a number of states as they seek to either attain or maintain the current $PM_{2.5}$ or ozone NAAQS.

Beyond the impact locomotive and marine diesel engines have on our nation's ambient air quality the diesel exhaust emissions from these engines are also of particular concern since exposure to diesel exhaust is classified as likely to be carcinogenic to humans by inhalation from environmental levels of exposure.[14] Many people spend a large portion of time in or near areas of concentrated locomotive or marine diesel emissions, near rail yards, marine ports, railways, and waterways. Recent studies show that populations living near large diesel emission sources such as major roadways,[15] rail yards [16] and marine ports [17] are likely to experience greater diesel exhaust exposure levels than the overall U.S. population, putting them at a greater health risk.

EPA recently conducted an initial screening-level analysis [18] of selected marine port areas and rail yards to better understand the populations that are exposed to diesel particulate matter (DPM) emissions from these facilities.[19, 20] This screening-level analysis focused on a representative selection of national marine ports and rail yards.[21] Of the 47 marine ports and 37 rail yards selected, the results indicate that at least 13 million people, including a disproportionate number of low-income households, African-Americans, and Hispanics, living in the vicinity of these facilities, are being exposed to ambient DPM levels that are 2.0 $\mu g/m^3$ and 0.2 $\mu g/m^3$ above levels found in areas further from these facilities. Because those populations exposed to DPM emissions from marine ports and rail yards are more likely to be low-income and minority residents, these populations will benefit from the controls being finalized in this action. The detailed findings of this study are available in the public docket for this rulemaking.

In the following sections we review important public health effects linked to pollutants emitted from locomotive and marine diesel engines. First, the human health effects caused by the pollutants and their current and projected ambient levels are discussed. Following the discussion of health effects, the modeled air quality benefits resulting from this action and the welfare effects associated with emissions from diesel engines are presented. Finally, the locomotive and marine engine emission inventories for the primary pollutants affected by this rule are provided. In summary, the emission reductions from this rule will contribute to controlling the health and welfare problems associated with ambient PM and ozone levels and with diesel-related air toxics.

Taken together, the materials in this section and in the proposal describe the need for tightened emission standards for both locomotive and marine diesel engines and the air quality and public health benefits resulting from this program. This section is not an exhaustive treatment of these issues. For a fuller understanding of the topics treated here, you should refer to the extended presentations in Chapter 2, 3 and 5 of the Regulatory Impact Analysis (RIA) accompanying this final rule.

### *B. Public Health Impacts*

#### (1) Particulate Matter

The locomotive and marine engine standards detailed in this action will result in significant reductions in primary (directly emitted) $PM_{2.5}$ emissions. In addition, the standards finalized today will reduce emissions of $NO_X$ and VOCs, which contribute to the formation of secondary $PM_{2.5}$. Locomotive and marine diesel engines emit high levels of $NO_X$, which react in the atmosphere to form secondary $PM_{2.5}$ (namely ammonium nitrate). These engines also emit $SO_2$ and VOC, which react in the atmosphere to form secondary $PM_{2.5}$ composed of sulfates and organic carbonaceous $PM_{2.5}$. This rule will reduce both primary and secondary PM.

[13] See section II.B.(1)(c) and II.B.(2)(c) for a summary of the impact emission reductions from locomotive and marine diesel engines will have on air quality in current $PM_{2.5}$ and ozone nonattainment areas.

[14] U.S. EPA (2002) Health Assessment Document for Diesel Engine Exhaust. EPA/600/8–90/057F. Office of Research and Development, Washington, DC. This document is available in Docket EPA–HQ–OAR–2003–0190. This document is available electronically at *http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=29060*.

[15] Kinnee, E.J.; Touma, J.S.: Mason, R.; Thurman, J.; Beidler, A.; Bailey, C.; Cook, R. (2004) Allocation of onroad mobile emissions to road segments for air toxics modeling in an urban area. Transport. Res. Part D 9:139–150; also see Cohen, J.; Cook, R; Bailey, C.R.; Carr, E. (2005) Relationship between motor vehicle emissions of hazardous pollutants, roadway proximity, and ambient concentrations in Portland, Oregon. Environ. Modeling & Software 20: 7–12.

[16] Hand, R.; Di, P; Servin, A.; Hunsaker, L.; Suer, C. (2004) Roseville Rail Yard Study. California Air Resources Board. This document is available in Docket EPA–HQ–OAR–2003–0190. [Online at *http://www.arb.ca.gov/diesel/documents/rrstudy.htm*].

[17] Di P.; Servin, A.; Rosenkranz, K.; Schwehr, B.; Tran, H. (April 2006); Diesel Particulate Matter Exposure Assessment Study for the Ports of Los Angeles and Long Beach. State of California Air Resources Board.

[18] This type of screening-level analysis is an inexact tool and not appropriate for regulatory decision-making; it is useful in beginning to understand potential impacts and for illustrative purposes. Additionally, the emissions inventories used as inputs for the analyses are not official estimates and likely underestimate overall emissions because they are not inclusive of all emission sources at the individual ports in the sample. For example, most inventories included emissions from ocean-going vessels (powered by Category 3 engines), as well as some commercial vessel categories, including harbor crafts (powered by Category 1 and 2 engines), cargo handling equipment, locomotives, and heavy-duty vehicles. This final rule will not address emissions from ocean-going vessels, cargo handling equipment or heavy-duty vehicles.

[19] ICF International. September 28, 2007. Estimation of diesel particulate matter concentration isopleths for marine harbor areas and rail yards. Memorandum to EPA under Work Assignment Number 0–3, Contract Number EP–C–06–094. This memo is available in Docket EPA–HQ–OAR–2003–0190.

[20] ICF International. September 28, 2007. Estimation of diesel particulate matter population exposure near selected harbor areas and rail yards. Memorandum to EPA under Work Assignment Number 0–3, Contract Number EP–C–06–094. This memo is available in Docket EPA–HQ–OAR–2003–0190.

[21] The Agency selected a representative sample of the top 150 U.S. ports including coastal, inland and Great Lake ports. In selecting a sample of rail yards the Agency identified a subset from the hundreds of rail yards operated by Class I Railroads.

(a) Background

Particulate matter (PM) represents a broad class of chemically and physically diverse substances. It can be principally characterized as discrete particles that exist in the condensed (liquid or solid) phase spanning several orders of magnitude in size. PM is further described by breaking it down into size fractions. $PM_{10}$ refers to particles generally less than or equal to 10 micrometers (μm) in diameter. $PM_{2.5}$ refers to fine particles, generally less than or equal to 2.5 μm in diameter. Inhalable (or ''thoracic'') coarse particles refer to those particles generally greater than 2.5 μm but less than or equal to 10 μm in diameter. Ultrafine PM refers to particles less than 100 nanometers (0.1 μm) in diameter. Larger particles tend to be removed by the respiratory clearance mechanisms (e.g. coughing), whereas smaller particles are deposited deeper in the lungs.

Fine particles are produced primarily by combustion processes and by transformations of gaseous emissions (e.g., $SO_x$, $NO_X$ and VOC) in the atmosphere. The chemical and physical properties of $PM_{2.5}$ may vary greatly with time, region, meteorology, and source category. Thus, $PM_{2.5}$ may include a complex mixture of different pollutants including sulfates, nitrates, organic compounds, elemental carbon and metal compounds. These particles can remain in the atmosphere for days to weeks and travel hundreds to thousands of kilometers.

The primary $PM_{2.5}$ NAAQS includes a short-term (24-hour) and a long-term (annual) standard. The 1997 $PM_{2.5}$ NAAQS established by EPA set the 24-hour standard at a level of 65 μg/m$^3$ based on the 98th percentile concentration averaged over three years. The annual standard specifies an expected annual arithmetic mean not to exceed 15 μg/m$^3$ averaged over three years.

EPA has recently amended the NAAQS for $PM_{2.5}$ (71 FR 61144, October 17, 2006). The final rule, signed on September 21, 2006, addressed revisions to the primary and secondary NAAQS for PM to provide increased protection of public health and welfare, respectively. The level of the 24-hour $PM_{2.5}$ NAAQS was revised from 65 μg/m$^3$ to 35 μg/m$^3$ and the level of the annual $PM_{2.5}$ NAAQS was retained at 15 μg/m$^3$. With regard to the secondary standards for $PM_{2.5}$, EPA has revised these standards to be identical in all respects to the revised primary standards.

(b) Health Effects of $PM_{2.5}$

Scientific studies show ambient PM is associated with a series of adverse health effects. These health effects are discussed in detail in the 2004 EPA Particulate Matter Air Quality Criteria Document (PM AQCD), and the 2005 PM Staff Paper.[22, 23] Further discussion of health effects associated with PM can also be found in the RIA for this rule.

Health effects associated with short-term exposures (hours to days) to ambient PM include premature mortality, increased hospital admissions, heart and lung diseases, increased cough, adverse lower-respiratory symptoms, decrements in lung function and changes in heart rate rhythm and other cardiac effects. Studies examining populations exposed to different levels of air pollution over a number of years, including the Harvard Six Cities Study and the American Cancer Society Study, show associations between long-term exposure to ambient $PM_{2.5}$ and both total and cardiovascular and respiratory mortality.[24] In addition, a reanalysis of the American Cancer Society Study shows an association between fine particle and sulfate concentrations and lung cancer mortality.[25]

The health effects of $PM_{2.5}$ have been further documented in local impact studies which have focused on health effects due to $PM_{2.5}$ exposures measured on or near roadways. These studies take into account all air pollution sources, including both spark-ignition (gasoline) and diesel powered vehicles, and indicate that exposure to $PM_{2.5}$ emissions near roadways, which are dominated by mobile sources, are associated with potentially serious health effects. For instance, a recent study found associations between concentrations of cardiac risk factors in the blood of healthy young police officers and $PM_{2.5}$ concentrations measured in vehicles.[26] Also, a number of studies have shown associations between residential or school outdoor concentrations of some fine particle constituents that are found in motor vehicle exhaust, and adverse respiratory outcomes, including asthma prevalence in children who live near major roadways.[27, 28, 29] Although the engines considered in this rule differ from those in these studies with respect to their applications and fuel qualities, these studies provide an indication of the types of health effects that might be expected to be associated with personal exposure to $PM_{2.5}$ emissions from large marine diesel and locomotive engines.

Recent new studies from the State of California provide evidence that $PM_{2.5}$ emissions within marine ports and rail yards can contribute significantly to elevated ambient concentrations near these sources.[30, 31] A substantial number of people experience exposure to locomotive and marine diesel engine emissions, raising potential health concerns. The controls finalized in this action will help reduce exposure to $PM_{2.5}$, specifically exposure to marine port and rail yard related diesel $PM_{2.5}$ sources. Additional information on marine port and rail yard emissions and ambient exposures can be found in Chapter 2 of the RIA.

(c) Current and Projected $PM_{2.5}$ Levels

[22] U.S. EPA (2004) Air Quality Criteria for Particulate Matter (Oct 2004), Volume I Document No. EPA600/P–99/002aF and Volume II Document No. EPA600/P–99/002bF. This document is available in Docket EPA–HQ–OAR–2003–0190.

[23] U.S. EPA (2005) Review of the National Ambient Air Quality Standard for Particulate Matter: Policy Assessment of Scientific and Technical Information, OAQPS Staff Paper. EPA–452/R–05–005. This document is available in Docket EPA–HQ–OAR–2003–0190.

[24] Dockery, DW; Pope, CA III: Xu, X; et al. 1993. An association between air pollution and mortality in six U.S. cities. N Engl J Med 329:1753–1759.

[25] Pope, C. A., III; Burnett, R. T.; Thun, M. J.; Calle, E. E.; Krewski, D.; Ito, K.; Thurston, G. D. (2002) Lung cancer, cardiopulmonary mortality, and long-term exposure to fine particulate air pollution. J. Am. Med. Assoc. 287:1132–1141.

[26] Riediker, M.; Cascio, W.E.; Griggs, T.R.; et al. (2004) Particulate matter exposure in cars is associated with cardiovascular effects in healthy young men. Am J Respir Crit Care Med 169: 934–940.

[27] Van Vliet, P.; Knape, M.; de Hartog, J.; Janssen, N.; Harssema, H.; Brunekreef, B. (1997). Motor vehicle exhaust and chronic respiratory symptoms in children living near freeways. Env. Research 74: 122–132.

[28] Brunekreef, B., Janssen, N.A.H.; de Hartog, J.; Harssema, H.; Knape, M.; van Vliet, P. (1997). Air pollution from truck traffic and lung function in children living near roadways. Epidemiology 8:298–303.

[29] Kim, J.J.; Smorodinsky, S.; Lipsett, M.; Singer, B.C.; Hodgson, A.T.; Ostro, B. (2004). Traffic-related air pollution near busy roads: The East Bay children's respiratory health study. Am. J. Respir. Crit. Care Med. 170: 520–526.

[30] State of California Air Resources Board. Roseville Rail Yard Study. Stationary Source Division, October 14, 2004. This document is available in Docket EPA–HQ–OAR–2003–0190. This document is available electronically at: *http://www.arb.ca.gov/diesel/documents/rrstudy.htm*.

[31] State of California Air Resources Board. Diesel Particulate Matter Exposure Assessment Study for the Ports of Los Angeles and Long Beach, April 2006. This document is available in Docket EPA–HQ–OAR–2003–0190. This document is available electronically at: *ftp://ftp.arb.ca.gov/carbis/msprog/offroad/marinevess/documents/portstudy0406.pdf*.

$PM_{2.5}$ concentrations exceeding the level of the $PM_{2.5}$ NAAQS occur in many parts of the country.[32] In 2005 EPA designated 39 nonattainment areas for the 1997 $PM_{2.5}$ NAAQS (70 FR 943, January 5, 2005). These areas are comprised of 208 full or partial counties with a total population exceeding 88 million. The 1997 $PM_{2.5}$ NAAQS was recently revised and the 2006 $PM_{2.5}$ NAAQS became effective on December 18, 2006. Table II–1 presents the number of counties in areas currently designated as nonattainment for the 1997 $PM_{2.5}$ NAAQS as well as the number of additional counties that have monitored data that is violating the 2006 $PM_{2.5}$ NAAQS.

TABLE II–1.—FINE PARTICLE STANDARDS: CURRENT NONATTAINMENT AREAS AND OTHER VIOLATING COUNTIES

| Nonattainment areas/other violating counties | Number of counties | Population [a] |
|---|---|---|
| 1997 $PM_{2.5}$ Standards: 39 areas currently designated | 208 | 88,394,000 |
| 2006 $PM_{2.5}$ Standards: counties with violating monitors [b] | 49 | 18,198,676 |
| Total | 257 | 106,595,676 |

**Notes:**
(a) Population numbers are from 2000 census data.
(b) This table provides an estimate of the counties violating the 2006 $PM_{2.5}$ NAAQS based on 2003–05 air quality data. The areas designated as nonattainment for the 2006 $PM_{2.5}$ NAAQS will be based on 3 years of air quality data from later years. Also, the county numbers in the summary table includes only the counties with monitors violating the 2006 $PM_{2.5}$ NAAQS. The monitored county violations may be an underestimate of the number of counties and populations that will eventually be included in areas with multiple counties designated nonattainment.

A number of state governments have told EPA that they need the reductions this rule will provide in order to meet and maintain the $PM_{2.5}$ NAAQS. Areas designated as not attaining the 1997 $PM_{2.5}$ NAAQS will need to attain the 1997 standards in the 2010 to 2015 time frame, and then maintain them thereafter. The attainment dates associated with the potential new 2006 $PM_{2.5}$ nonattainment areas are likely to be in the 2015 to 2020 timeframe. The emission standards finalized in this action become effective as early as 2008 making the $NO_X$, PM, and VOC inventory reductions from this rulemaking useful to states in attaining or maintaining the $PM_{2.5}$ NAAQS.

EPA has already adopted many emission control programs that are expected to reduce ambient $PM_{2.5}$ levels and which will assist in reducing the number of areas that fail to achieve the $PM_{2.5}$ NAAQS. Even so, our air quality modeling for this final rule projects that in 2020, with all current controls but excluding the reductions achieved through this rule, up to 11 counties with a population of 24 million may not attain the current annual $PM_{2.5}$ standard of 15 $\mu g/m^3$. These numbers do not account for additional areas that have air quality measurements within 10 percent of the annual $PM_{2.5}$ standard. These areas, although not violating the standards, will also benefit from the additional reductions from this rule ensuring long-term maintenance of the $PM_{2.5}$ NAAQS.

Air quality modeling performed for this final rule shows that in 2020 and 2030 all 39 current $PM_{2.5}$ nonattainment areas will experience decreases in their $PM_{2.5}$ design values. For areas with current $PM_{2.5}$ design values greater than 15 $\mu g/m^3$ the modeled future-year population weighted $PM_{2.5}$ design values are expected to decrease on average by 0.08 $\mu g/m^3$ in 2020 and by 0.16 $\mu g/m^3$ in 2030. The maximum decrease for future-year $PM_{2.5}$ design values will be 0.38 $\mu g/m^3$ in 2020 and 0.81 $\mu g/m^3$ in 2030. The air quality modeling methodology and the projected reductions are discussed in more detail in Chapter 2 of the RIA.

(2) Ozone

The locomotive and marine engine standards finalized in this action are expected to result in significant reductions of $NO_X$ and VOC emissions. $NO_X$ and VOC contribute to the formation of ground-level ozone pollution or smog. People in many areas across the U.S. continue to be exposed to unhealthy levels of ambient ozone.

(a) Background

Ground-level ozone pollution is typically formed by the reaction of volatile organic compounds (VOC) and nitrogen oxides ($NO_X$) in the lower atmosphere in the presence of heat and sunlight. These pollutants, often referred to as ozone precursors, are emitted by many types of pollution sources, such as highway and nonroad motor vehicles and engines, power plants, chemical plants, refineries, makers of consumer and commercial products, industrial facilities, and smaller area sources.

The science of ozone formation, transport, and accumulation is complex.[33] Ground-level ozone is produced and destroyed in a cyclical set of chemical reactions, many of which are sensitive to temperature and sunlight. When ambient temperatures and sunlight levels remain high for several days and the air is relatively stagnant, ozone and its precursors can build up and result in more ozone than typically occurs on a single high-temperature day. Ozone can also be transported into an area from pollution sources found hundreds of miles upwind, resulting in elevated ozone levels even in areas with low local VOC or $NO_X$ emissions.

The current ozone NAAQS, established by EPA in 1997, has an 8-hour averaging time. The 8-hour ozone NAAQS is met at an ambient air quality monitoring site when the average of the annual fourth-highest daily maximum 8-hour average ozone concentration over three years is less than or equal to 0.084 ppm. On June 20, 2007, EPA proposed to strengthen the ozone NAAQS, the proposed revisions reflect new scientific evidence about ozone and its effects on people and public welfare.[34] The final

[32] A listing of the $PM_{2.5}$ nonattainment areas is included in the RIA for this rule.

[33] U.S. EPA Air Quality Criteria for Ozone and Related Photochemical Oxidants (Final). U.S. Environmental Protection Agency, Washington, DC, EPA 600/R–05/004aF–cF, 2006. This document is available in Docket EPA–HQ–OAR–2003–0190. This document may be accessed electronically at: *http://www.epa.gov/ttn/naaqs/standards/ozone/s_o3_cr_cd.html.*

[34] EPA proposed to set the 8-hour primary ozone standard to a level within the range of 0.070–0.075 ppm. The agency also requested comments on alternative levels of the 8-hour primary ozone standard, within a range from 0.060 ppm up to and including retention of the current standard (0.084 ppm). EPA also proposed two options for the secondary ozone standard. One option would establish a new form of standard designed specifically to protect sensitive plants from damage caused by repeated ozone exposure throughout the growing season. This cumulative standard would add daily ozone concentrations across a three-month period. EPA proposed to set the level of the cumulative standard within the range of 7 to 21 ppm-hours. The other option would follow the

Continued

ozone NAAQS rule is scheduled for March 2008.

(b) Health Effects of Ozone

The health and welfare effects of ozone are well documented and are assessed in EPA's 2006 ozone Air Quality Criteria Document (ozone AQCD) and EPA Staff Paper.[35, 36] Ozone can irritate the respiratory system, causing coughing, throat irritation, and/or uncomfortable sensation in the chest. Ozone can reduce lung function and make it more difficult to breathe deeply; breathing may also become more rapid and shallow than normal, thereby limiting a person's activity. Ozone can also aggravate asthma, leading to more asthma attacks that require medical attention and/or the use of additional medication. There is evidence of an elevated risk of mortality associated with acute exposure to ozone, especially in the summer or warm season when ozone levels are typically high. Animal toxicological evidence indicates that with repeated exposure, ozone can inflame and damage the lining of the lungs, which may lead to permanent changes in lung tissue and irreversible reductions in lung function. People who are more susceptible to effects associated with exposure to ozone can include children, the elderly, and individuals with respiratory disease such as asthma. Those with greater exposures to ozone, for instance due to time spent outdoors (e.g., children and outdoor workers), are also of particular concern.

The recent ozone AQCD also examined relevant new scientific information that has emerged in the past decade, including the impact of ozone exposure on such health effects as changes in lung structure and biochemistry, inflammation of the lungs, exacerbation and causation of asthma, respiratory illness-related school absence, hospital admissions and premature mortality. Animal toxicological studies have suggested potential interactions between ozone and PM with increased responses observed to mixtures of the two pollutants compared to either ozone or PM alone. The respiratory morbidity observed in animal studies along with the evidence from epidemiologic studies supports a causal relationship between acute ambient ozone exposures and increased respiratory-related emergency room visits and hospitalizations in the warm season. In addition, there is suggestive evidence of a contribution of ozone to cardiovascular-related morbidity and non-accidental and cardiopulmonary mortality.

(c) Current and Projected Ozone Levels

Ozone concentrations exceeding the level of the 8-hour ozone NAAQS occur over wide geographic areas, including most of the nation's major population centers.[37] As of October 10, 2007, there were approximately 144 million people living in 81 areas (which include all or part of 366 counties) designated as not in attainment with the 8-hour ozone NAAQS. These numbers do not include the people living in areas where there is a future risk of failing to maintain or attain the 8-hour ozone NAAQS.

States with 8-hour ozone nonattainment areas are required to take action to bring those areas into compliance in the future. Based on the final rule designating and classifying 8-hour ozone nonattainment areas (69 FR 23951, April 30, 2004), most 8-hour ozone nonattainment areas will be required to attain the ozone NAAQS in the 2007 to 2013 time frame and then maintain the NAAQS thereafter.[38] Many of these nonattainment areas will need to adopt additional emission reduction programs and the $NO_X$ and VOC reductions from this final action are particularly important for these states. In addition, EPA's review of the ozone NAAQS is currently underway with a final rule scheduled for March 2008. If the ozone NAAQS is revised then new nonattainment areas will be designated. While EPA is not relying on it for purposes of justifying this rule, the emission reductions from this rulemaking will also be helpful to states if EPA revises the ozone NAAQS to be more stringent.

EPA has already adopted many emission control programs that are expected to reduce ambient ozone levels. These control programs are described in section I.B.1 of this preamble. As a result of these programs, the number of areas that fail to meet the 8-hour ozone NAAQS in the future is expected to decrease. Based on the air quality modeling performed for this rule, which does not include any additional local controls, we estimate nine counties (where 22 million people are projected to live) will exceed the 8-hour ozone NAAQS in 2020.[39] An additional 39 counties (where 29 million people are projected to live) are expected to be within 10 percent of violating the 8-hour ozone NAAQS in 2020.

This rule results in reductions in nationwide ozone levels. The air quality modeling projects that in 2030, 573 counties (of 579 that have monitored data) experience at least a 0.1 ppb decrease in their ozone design values. There are three nonattainment areas in southern California, the Los Angeles-South Coast Air Basin nonattainment area, the Riverside Co. (Coachella Valley) nonattainment area and the Los Angeles—San Bernardino (W. Mojave) nonattainment area, which will experience 8-hour ozone design value increases due to the $NO_X$ disbenefits which occur in these VOC-limited ozone nonattainment areas. Briefly, $NO_X$ reductions at certain times and in some areas can lead to increased ozone levels. The air quality modeling methodology (Section 2.3), the projected reductions (Section 2.2.4), and the limited $NO_X$ disbenefits (Section 2.2.4.2.1), are discussed in more detail in Chapter 2 of the RIA.

Results from the air quality modeling conducted for this final rule indicate that the locomotive and marine diesel engine emission reductions in 2020 and 2030 will improve both the average and population-weighted average ozone concentrations for the U.S. In addition, the air quality modeling shows that on average this final rule will help bring counties closer to ozone attainment as well as assist counties whose ozone concentrations are within ten percent below the standard. For example, in projected nonattainment counties, on a population-weighted basis, the 8-hour ozone design value will on average decrease by 0.13 ppb in 2020 and 0.62 ppb in 2030.[40]

The impact of the reductions has also been analyzed with respect to those areas that have the highest design

current practice of making the secondary standard equal to the proposed 8-hour primary standard.

[35] U.S. EPA Air Quality Criteria for Ozone and Related Photochemical Oxidants (Final). U.S. Environmental Protection Agency, Washington, DC, EPA 600/R–05/004aF–cF, 2006. This document is available in Docket EPA–HQ–OAR–2003–0190. This document may be accessed electronically at: *http://www.epa.gov/ttn/naaqs/standards/ozone/s_o3_cr_cd.html.*

[36] U.S. EPA (2007) Review of the National Ambient Air Quality Standards for Ozone, Policy Assessment of Scientific and Technical Information. OAQPS Staff Paper.EPA–452/R–07–003. This document is available in Docket EPA–HQ–OAR–2003–0190. This document is available electronically at: *http:www.epa.gov/ttn/naaqs/standards/ozone/s_o3_cr_.html.*

[37] A listing of the 8-hour ozone nonattainment areas is included in the RIA for this rule.

[38] The Los Angeles South Coast Air Basin 8-hour ozone nonattainment area will have to attain before June 15, 2021.

[39] We expect many of the 8-hour ozone nonattainment areas to adopt additional emission reduction programs but we are unable to quantify or rely upon future reductions from additional state and local programs that have not yet been adopted.

[40] Ozone design values are reported in parts per million (ppm) as specified in 40 CFR part 50. Due to the scale of the design value changes in this action, results have been presented in parts per billion (ppb) format.

values, at or above 85 ppb, in 2020. We project there will be nine U.S. counties with design values at or above 85 ppb in 2020. After implementation of this rule, we project that one of these nine counties will drop below 85 ppb. Further, two of the nine counties will be at least 10 percent closer to a design value of less than 85 ppb, and on average all nine counties will be about 18 percent closer to a design value of less than 85 ppb.

(3) Air Toxics

People experience elevated risk of cancer and other noncancer health effects from exposure to the class of pollutants known collectively as ''air toxics''. Mobile sources are responsible for a significant portion of this exposure. According to the National Air Toxic Assessment (NATA) for 1999, mobile sources, including locomotive and marine diesel marine engines, were responsible for 44 percent of outdoor toxic emissions and almost 50 percent of the cancer risk among the 133 pollutants quantitatively assessed in the 1999 NATA. Benzene is the largest contributor to cancer risk of all the assessed pollutants and mobile sources were responsible for about 68 percent of all benzene emissions in 1999. Although the 1999 NATA did not quantify cancer risks associated with exposure to diesel exhaust, EPA has concluded that diesel exhaust ranks with other emissions that the national-scale assessment suggests pose the greatest relative risk.

According to the 1999 NATA, nearly the entire U.S. population was exposed to an average level of air toxics that has the potential for adverse respiratory noncancer health effects. This potential was indicated by a hazard index (HI) greater than 1.[41] Mobile sources were responsible for 74 percent of the potential noncancer hazard from outdoor air toxics in 1999. About 91 percent of this potential noncancer hazard was from acrolein;[42] however, the confidence in the RfC for acrolein is medium[43] and confidence in NATA estimates of population noncancer hazard from ambient exposure to this pollutant is low.[44] It is important to note that NATA estimates of noncancer hazard do not include the adverse health effects associated with particulate matter identified in EPA's Particulate Matter Air Quality Criteria Document. Gasoline and diesel engine emissions contribute significantly to particulate matter concentration.

The NATA modeling framework has a number of limitations which prevent its use as the sole basis for setting regulatory standards. These limitations and uncertainties are discussed on the 1999 NATA website.[45] Even so, this modeling framework is very useful in identifying air toxic pollutants and sources of greatest concern, setting regulatory priorities, and informing the decision making process.

The following section provides a brief overview of air toxics which are associated with nonroad engines, including locomotive and marine diesel engines, and provides a discussion of the health risks associated with each air toxic.

(a) Diesel Exhaust (DE)

Locomotive and marine diesel engines emit diesel exhaust (DE), a complex mixture comprised of carbon dioxide, oxygen, nitrogen, water vapor, carbon monoxide, nitrogen compounds, sulfur compounds and numerous low-molecular-weight hydrocarbons. A number of these gaseous hydrocarbon components are individually known to be toxic, including aldehydes, benzene and 1,3-butadiene. The diesel particulate matter (DPM) present in diesel exhaust consists of fine particles (< 2.5 μm), including a subgroup with a large number of ultrafine particles (< 0.1 μm). These particles have a large surface area which makes them an excellent medium for adsorbing organics and their small size makes them highly respirable and able to reach the deep lung. Many of the organic compounds present on the particles and in the gases are individually known to have mutagenic and carcinogenic properties. Diesel exhaust varies significantly in chemical composition and particle sizes between different engine types (heavy-duty, light-duty), engine operating conditions (idle, accelerate, decelerate), and fuel formulations (high/low sulfur fuel). Also, there are emissions differences between on-road and nonroad engines because the nonroad engines are generally of older technology. This is especially true for locomotive and marine diesel engines.[46]

After being emitted in the engine exhaust, diesel exhaust undergoes dilution as well as chemical and physical changes in the atmosphere. The lifetime for some of the compounds present in diesel exhaust ranges from hours to days.

(i) Diesel Exhaust: Potential Cancer Effects

In EPA's 2002 Diesel Health Assessment Document (Diesel HAD),[47] exposure to diesel exhaust was classified as likely to be carcinogenic to humans by inhalation from environmental exposures, in accordance with the revised draft 1996/1999 EPA cancer guidelines. A number of other agencies (National Institute for Occupational Safety and Health, the International Agency for Research on Cancer, the World Health Organization, California EPA, and the U.S. Department of Health and Human Services) have made similar classifications. However, EPA also concluded in the Diesel HAD that it is not possible currently to calculate a cancer unit risk for diesel exhaust due to a variety of factors that limit the current studies, such as limited quantitative exposure histories in occupational groups investigated for lung cancer.

For the Diesel HAD, EPA reviewed 22 epidemiologic studies on the subject of the carcinogenicity of workers exposed

[41] To express chronic noncancer hazards, we used the RfC as part of a calculation called the hazard quotient (HQ), which is the ratio between the concentration to which a person is exposed and the RfC. (RfC is defined by EPA as, ''an estimate of a continuous inhalation exposure to the human population, including sensitive subgroups, with uncertainty spanning perhaps an order of magnitude, which is likely to be without appreciable risks of deleterious noncancer effects during a lifetime.'') A value of the HQ less than one indicates that the exposure is lower than the RfC and that no adverse health effects would be expected. Combined noncancer hazards were calculated using the hazard index (HI), defined as the sum of hazard quotients for individual air toxic compounds that affect the same target organ or system. As with the hazard quotient, a value of the HI at or below 1.0 will likely not result in adverse effects over a lifetime of exposure. However, a value of the HI greater than 1.0 does not necessarily suggest a likelihood of adverse effects. Furthermore, the HI cannot be translated into a probability that adverse effects will occur and is not likely to be proportional to risk.

[42] U.S. EPA (2006) National-Scale Air Toxics Assessment for 1999. This material is available electronically at *http://www.epa.gov/ttn/atw/nata1999/risksum.html*.

[43] U.S. EPA (2003) Integrated Risk Information System File of Acrolein. National Center for Environmental Assessment, Office of Research and Development, Washington, D.C. 2003. This material is available electronically at *http://www.epa.gov/iris/subst/0364.htm*.

[44] U.S. EPA (2006) National-Scale Air Toxics Assessment for 1999. This material is available electronically at *http://www.epa.gov/ttn/atw/nata1999/risksum.html*.

[45] U.S. EPA (2006) National-Scale Air Toxics Assessment for 1999. *http://www.epa.gov/ttn/atw/nata1999*.

[46] U.S. EPA (2002) Health Assessment Document for Diesel Engine Exhaust. EPA/600/8–90/057F Office of Research and Development, Washington DC. Pp1–1 1–2. This document is available electronically at *http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=29060*. This document can be found in Docket EPA–HQ–OAR–2003–0190.

[47] U.S. EPA (2002) Health Assessment Document for Diesel Engine Exhaust. EPA/600/8–90/057F Office of Research and Development, Washington, DC. This document is available electronically at *http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=29060*. This document can be found in Docket EPA–HQ–OAR–2003–0190.

to diesel exhaust in various occupations, finding increased lung cancer risk, although not always statistically significant, in 8 out of 10 cohort studies and 10 out of 12 case-control studies within several industries, including railroad workers. Relative risk for lung cancer associated with exposure ranged from 1.2 to 1.5, although a few studies show relative risks as high as 2.6. Additionally, the Diesel HAD also relied on two independent meta-analyses, which examined 23 and 30 occupational studies respectively, which found statistically significant increases in smoking-adjusted relative lung cancer risk associated with exposure to diesel exhaust, of 1.33 to 1.47. These meta-analyses demonstrate the effect of pooling many studies and in this case show the positive relationship between diesel exhaust exposure and lung cancer across a variety of diesel exhaust-exposed occupations.[48, 49]

In the absence of a cancer unit risk, the Diesel HAD sought to provide additional insight into the significance of the diesel exhaust-cancer hazard by estimating possible ranges of risk that might be present in the population. An exploratory analysis was used to characterize a possible risk range by comparing a typical environmental exposure level for highway diesel sources to a selected range of occupational exposure levels. The occupationally observed risks were then proportionally scaled according to the exposure ratios to obtain an estimate of the possible environmental risk. A number of calculations are needed to accomplish this, and these can be seen in the EPA Diesel HAD. The outcome was that environmental risks from diesel exhaust exposure could range from a low of $10^{-4}$ to $10^{-5}$ to as high as $10^{-3}$, reflecting the range of occupational exposures that could be associated with the relative and absolute risk levels observed in the occupational studies. Because of uncertainties, the analysis acknowledged that the risks could be lower than $10^{-4}$ or $10^{-5}$, and a zero risk from diesel exhaust exposure was not ruled out.

Retrospective health studies of railroad workers have played an important part in determining that exposure to diesel exhaust is likely to be carcinogenic to humans by inhalation from environmental exposures. Key evidence of the diesel exhaust exposure linkage to lung cancer comes from two retrospective case-control studies of railroad workers which are discussed at length in the Diesel HAD and summarized in Chapter 2 of the RIA.

(ii) Diesel Exhaust: Other Health Effects

Noncancer health effects of acute and chronic exposure to diesel exhaust emissions are also of concern to the EPA. EPA derived a diesel exhaust reference concentration (RfC) from consideration of four well-conducted chronic rat inhalation studies showing adverse pulmonary effects.[50, 51, 52, 53] The RfC is 5 μg/m$^3$ for diesel exhaust as measured by diesel PM. This RfC does not consider allergenic effects such as those associated with asthma or immunologic effects. There is growing evidence, discussed in the Diesel HAD, that exposure to diesel exhaust can exacerbate these effects, but the exposure-response data are presently lacking to derive an RfC. The EPA Diesel HAD states, ''With DPM [diesel particulate matter] being a ubiquitous component of ambient PM, there is an uncertainty about the adequacy of the existing DE [diesel exhaust] noncancer database to identify all of the pertinent DE-caused noncancer health hazards.'' (p. 9–19). The Diesel HAD concludes ''that acute exposure to DE [diesel exhaust] has been associated with irritation of the eye, nose, and throat, respiratory symptoms (cough and phlegm), and neurophysiological symptoms such as headache, lightheadedness, nausea, vomiting, and numbness or tingling of the extremities.'' [54]

Exposure to diesel exhaust has also been shown to cause serious noncancer effects in occupational exposure studies. One study of railroad workers and electricians, cited in the Diesel HAD,[55] found that exposure to diesel exhaust resulted in neurobehavioral impairments in one or more areas including reaction time, balance, blink reflex latency, verbal recall, and color vision confusion indices. Pulmonary function tests also showed that 10 of the 16 workers had airway obstruction and another group of 10 of 16 workers had chronic bronchitis, chest pain, tightness, and hyperactive airways. Finally, a variety of studies have been published subsequent to the completion of the Diesel HAD. One such study, published in 2006,[56] found that railroad engineers and conductors with diesel exhaust exposure from operating trains had an increased incidence of chronic obstructive pulmonary disease (COPD) mortality. The odds of COPD mortality increased with years on the job so that those who had worked more than 16 years as an engineer or conductor after 1959 had an increased risk of 1.61 (95% confidence interval, 1.12–2.30). EPA is assessing the significance of this study within the context of the broader literature.

(iii) Ambient $PM_{2.5}$ Levels and Exposure to Diesel Exhaust PM

The Diesel HAD also briefly summarizes health effects associated with ambient PM and discusses the EPA's annual $PM_{2.5}$ NAAQS of 15 μg/m$^3$. There is a much more extensive body of human data showing a wide spectrum of adverse health effects associated with exposure to ambient PM, of which diesel exhaust is an important component. The $PM_{2.5}$ NAAQS is designed to provide protection from the noncancer and premature mortality effects of $PM_{2.5}$ as a whole.

(iv) Diesel Exhaust PM Exposures

Exposure of people to diesel exhaust depends on their various activities, the time spent in those activities, the locations where these activities occur, and the levels of diesel exhaust pollutants in those locations. The major difference between ambient levels of diesel particulate and exposure levels for diesel particulate is that exposure accounts for a person moving from location to location, proximity to the emission source, and whether the exposure occurs in an enclosed environment.

**Occupational Exposures**

Occupational exposures to diesel exhaust from mobile sources, including

[48] Bhatia, R., Lopipero, P., Smith, A. (1998) Diesel exposure and lung cancer. Epidemiology 9(1):84–91.

[49] Lipsett, M; Campleman, S; (1999) Occupational exposure to diesel exhaust and lung cancer: a meta-analysis. Am J Public Health 80(7): 1009–1017.

[50] Ishinishi, N; Kuwabara, N; Takaki, Y; et al. (1988) Long-term inhalation experiments on diesel exhaust. In: Diesel exhaust and health risks. Results of the HERP studies. Ibaraki, Japan: Research Committee for HERP Studies; pp. 11–84.

[51] Heinrich, U; Fuhst, R; Rittinghausen, S; et al. (1995) Chronic inhalation exposure of Wistar rats and two different strains of mice to diesel engine exhaust, carbon black, and titanium dioxide. Inhal. Toxicol. 7:553–556.

[52] Mauderly, JL; Jones, RK; Griffith, WC; et al. (1987) Diesel exhaust is a pulmonary carcinogen in rats exposed chronically by inhalation. Fundam. Appl. Toxicol. 9:208–221.

[53] Nikula, KJ; Snipes, MB; Barr, EB; et al. (1995) Comparative pulmonary toxicities and carcinogenicities of chronically inhaled diesel exhaust and carbon black in F344 rats. Fundam. Appl. Toxicol. 25:80–94.

[54] ''Health Assessment Document for Diesel Engine Exhaust,'' U.S. Environmental Protection Agency, 600/8–90/057F, *http://www.epa.gov/ttn/atw/dieselfinal.pdf*, May 2002, p. 9–9.

[55] Kilburn (2000) See HAD Chapter 5–7.

[56] Hart, JE; Laden F; Schenker, M.B.; and Garshick, E. Chronic Obstructive Pulmonary Disease Mortality in Diesel-Exposed Railroad Workers; Environmental Health Perspective July 2006: 1013–1016.

locomotive engines and marine diesel engines, can be several orders of magnitude greater than typical exposures in the non-occupationally exposed population.

Over the years, diesel particulate exposures have been measured for a number of occupational groups. A wide range of exposures have been reported, from 2 μg/m$^3$ to 1,280 μg/m$^3$, for a variety of occupations. Studies have shown that miners and railroad workers typically have higher diesel exposure levels than other occupational groups studied, including firefighters, truck dock workers, and truck drivers (both short and long haul).[57] As discussed in the Diesel HAD, the National Institute of Occupational Safety and Health (NIOSH) has estimated a total of 1,400,000 workers are occupationally exposed to diesel exhaust from on-road and nonroad vehicles including locomotive and marine diesel engines.

**Elevated Concentrations and Ambient Exposures in Mobile Source-Impacted Areas**

Regions immediately downwind of rail yards and marine ports may experience elevated ambient concentrations of directly-emitted $PM_{2.5}$ from diesel engines. Due to the unique nature of rail yards and marine ports, emissions from a large number of diesel engines are concentrated in a small area. Furthermore, emissions occur at or near ground level, allowing emissions of diesel engines to reach nearby receptors without fully mixing with background air.

A 2004 study conducted by the California Air Resources Board (CARB) examined the air quality impacts of railroad operations at the J.R. Davis Rail Yard, the largest service and maintenance rail facility in the western United States.[58] The yard occupies 950 acres along a one-quarter mile wide and four-mile long section of land in Roseville, CA. The study developed an emissions inventory for the facility for the year 2000 and modeled ambient concentrations of diesel PM using a well-accepted dispersion model (ISCST3). The study estimated substantially elevated diesel PM concentrations in an area 5,000 meters from the facility, with higher concentrations closer to the rail yard. Using local meteorological data, annual average contributions from the rail yard to ambient diesel PM concentrations under prevailing wind conditions were 1.74, 1.18, 0.80, and 0.25 μg/m$^3$ at receptors located 200, 500, 1000, and 5000 meters from the yard, respectively. Several tens of thousands of people live within the area estimated to experience substantial increases in annual average ambient $PM_{2.5}$ as a result of these rail yard emissions.

Another study from CARB evaluated air quality impacts of diesel engine emissions within the Ports of Long Beach and Los Angeles in California, one of the largest ports in the U.S.[59] Like the earlier rail yard study, the port study employed the ISCST3 dispersion model. Using local meteorological data, annual average concentrations were substantially elevated over an area exceeding 200,000 acres. Because the ports are located near heavily-populated areas, the modeling indicated that over 700,000 people lived in areas with at least 0.3 μg/m$^3$ of port-related diesel PM in ambient air, about 360,000 people lived in areas with at least 0.6 μg/m$^3$ of diesel PM, and about 50,000 people lived in areas with at least 1.5 ug/m$^3$ of ambient diesel PM directly from the port. Most recently, CARB released several additional Railyard Health Risk Assessments which all show that diesel PM emissions result in significantly higher pollution risks in nearby communities.[60] Together these studies highlight the substantial contribution these facilities make to elevated ambient concentrations in populated areas.

As mentioned in section II.A of this preamble, EPA recently conducted an initial screening-level analysis of a representative selection of national marine port areas and rail yards to begin to better understand the populations that are exposed to DPM emissions from these facilities.[61, 62] As part of this study, a computer geographic information system (GIS) was used to identify the locations and property boundaries of 47 marine ports and 37 rail yard facilities.[63] Census information was used to estimate the size and demographic characteristics of the population living in the vicinity of the ports and rail yards. The results indicate that at least 13 million people, including a disproportionate number of low-income, African-Americans, and Hispanics, live in the vicinity of these facilities and are being exposed to ambient DPM levels that are 2.0 μg/m$^3$ and 0.2 μg/m$^3$ above levels found in areas further from these facilities. These populations will benefit from the controls being finalized in this action. This study is discussed in greater detail in chapter 2 of the RIA and detailed findings of this study are available in the public docket for this rulemaking.

(b) Other Air Toxics—benzene, 1,3-butadiene, formaldehyde, acetaldehyde, acrolein, POM, naphthalene

Locomotive and marine diesel engine exhaust emissions also contribute to ambient levels of other air toxics known or suspected as human or animal carcinogens, or that have noncancer health effects. These other air toxics include benzene, 1,3-butadiene, formaldehyde, acetaldehyde, acrolein, polycyclic organic matter (POM), and naphthalene. All of these compounds, except acetaldehyde, were identified as national or regional cancer risk or noncancer hazard drivers in the 1999 National-Scale Air Toxics Assessment (NATA) and have significant inventory contributions from mobile sources. That is, for a significant portion of the population, these compounds pose a significant portion of the total cancer and noncancer risk from breathing outdoor air toxics. The reductions in locomotive and marine diesel engine emissions finalized in this rulemaking will help reduce exposure to these harmful substances.

Benzene: EPA has characterized benzene as a known human carcinogen (causing leukemia) by all routes of exposure, and concludes that exposure is associated with additional health effects, including genetic changes in both humans and animals and increased proliferation of bone marrow cells in

[57] Diesel HAD Page 2–110, 8–12; Woskie, SR; Smith, TJ; Hammond, SK: et al. (1988a) Estimation of the DE exposures of railroad workers: II. National and historical exposures. Am J Ind Med 12:381–394.

[58] Hand, R.; Pingkuan, D.; Servin, A.; Hunsaker, L.; Suer, C. (2004) Roseville rail yard study. California Air Resources Board. [Online at *http://www.arb.ca.gov/diesel/documents/rrstudy.htm*] This document can be found in Docket EPA–HQ–OAR–2003–0190.

[59] State of California Air Resources Board. Diesel Particulate Matter Exposure Assessment Study for the Ports of Los Angeles and Long Beach, April 2006. This document is available in Docket EPA–HQ–OAR–2003–0190. This document is available electronically at: *ftp://ftp.arb.ca.gov/carbis/msprog/offroad/marinevess/documents/portstudy0406.pdf*.

[60] These studies are available in Docket EPA–HQ–OAR–2003–0190. Studies are also available at *http://www.arb.ca.gov/railyard/hra/hra.htm*.

[61] ICF International. September 28, 2007. Estimation of diesel particulate matter concentration isopleths for marine harbor areas and rail yards. Memorandum to EPA under Work Assignment Number 0–3, Contract Number EP–C–06–094. This memo is available in Docket EPA–HQ–OAR–2003–0190.

[62] ICF International. September 28, 2007. Estimation of diesel particulate matter population exposure near selected harbor areas and rail yards. Memorandum to EPA under Work Assignment Number 0–3, Contract Number EP–C–06–094. This memo is available in Docket EPA–HQ–OAR–2003–0190.

[63] The Agency selected a representative sample of the top 150 U.S. ports including coastal, inland, and Great Lake ports. In selecting a sample of rail yards the Agency identified a subset from the hundreds of rail yards operated by Class I Railroads.

mice.[64, 65, 66] EPA states in its IRIS database that data indicate a causal relationship between benzene exposure and acute lymphocytic leukemia and suggests a relationship between benzene exposure and chronic non-lymphocytic leukemia and chronic lymphocytic leukemia. The IARC has determined that benzene is a human carcinogen and the U.S. DHHS has characterized benzene as a known human carcinogen.[67, 68]

A number of adverse noncancer health effects including blood disorders, such as preleukemia and aplastic anemia, have also been associated with long-term exposure to benzene.[69, 70] The most sensitive noncancer effect observed in humans, based on current data, is the depression of the absolute lymphocyte count in blood.[71, 72] In addition, recent work, including studies sponsored by the Health Effects Institute (HEI), provides evidence that biochemical responses are occurring at lower levels of benzene exposure than previously known.[73, 74, 75, 76] EPA's IRIS program has not yet evaluated these new data.

1,3-Butadiene: EPA has characterized 1,3–butadiene as carcinogenic to humans by inhalation.[77, 78] The IARC has determined that 1, 3-butadiene is a human carcinogen and the U.S. DHHS has characterized 1,3-butadiene as a known human carcinogen.[79, 80] There are numerous studies consistently demonstrating that 1,3-butadiene is metabolized into genotoxic metabolites by experimental animals and humans. The specific mechanisms of 1,3-butadiene-induced carcinogenesis are unknown; however, the scientific evidence strongly suggests that the carcinogenic effects are mediated by genotoxic metabolites. Animal data suggest that females may be more sensitive than males for cancer effects associated with 1,3-butadiene exposure; while there are insufficient data in humans from which to draw conclusions about sensitive subpopulations.

1,3-Butadiene also causes a variety of reproductive and developmental effects in mice; no human data on these effects are available. The most sensitive effect was ovarian atrophy observed in a lifetime bioassay of female mice.[81]

Formaldehyde: Since 1987, EPA has classified formaldehyde as a probable human carcinogen based on evidence in humans and in rats, mice, hamsters, and monkeys.[82] EPA is currently reviewing recently published epidemiological data. For instance, research conducted by the National Cancer Institute (NCI) found an increased risk of nasopharyngeal cancer and lymphohematopoietic malignancies such as leukemia among workers exposed to formaldehyde.[83, 84] NCI is currently updating these studies. A recent National Institute of Occupational Safety and Health (NIOSH) study of garment workers also found increased risk of death due to leukemia among workers exposed to formaldehyde.[85] Extended follow-up of a cohort of British chemical workers did not find evidence of an increase in nasopharyngeal or lymphohematopoietic cancers, but a continuing statistically significant excess in lung cancers was reported.[86] Recently, the IARC re-classified formaldehyde as a human carcinogen (Group 1).[87]

Formaldehyde exposure also causes a range of noncancer health effects, including irritation of the eyes (burning and watering of the eyes), nose and throat. Decreased pulmonary function has been observed in humans. Effects from repeated exposure in humans include respiratory tract irritation, chronic bronchitis and nasal epithelial lesions.[88]

Acetaldehyde: EPA has characterized acetaldehyde as a probable human carcinogen, based on nasal tumors in rats.[89] Acetaldehyde is reasonably

[64] U.S. EPA. 2000. Integrated Risk Information System File for Benzene. This material is available electronically at *http://www.epa.gov/iris/subst/0276.htm.*

[65] International Agency for Research on Cancer (IARC). 1982. Monographs on the evaluation of carcinogenic risk of chemicals to humans, Volume 29, Some industrial chemicals and dyestuffs, World Health Organization, Lyon, France, p. 345–389.

[66] Irons, R.D.; Stillman, W.S.; Colagiovanni, D.B.; Henry, V.A. 1992. Synergistic action of the benzene metabolite hydroquinone on myelopoietic stimulating activity of granulocyte/macrophage colony-stimulating factor in vitro, Proc. Natl. Acad. Sci. 89:3691–3695.

[67] International Agency for Research on Cancer (IARC). 1987. Monographs on the evaluation of carcinogenic risk of chemicals to humans, Volume 29, Supplement 7, Some industrial chemicals and dyestuffs, World Health Organization, Lyon, France.

[68] U.S. Department of Health and Human Services National Toxicology Program 11th Report on Carcinogens available at: *http://ntp.niehs.nih.gov/go/16183.*

[69] Aksoy, M. (1989). Hematotoxicity and carcinogenicity of benzene. Environ. Health Perspect. 82: 193–197.

[70] Goldstein, B.D. (1988). Benzene toxicity. Occupational medicine. State of the Art Reviews. 3: 541–554.

[71] Rothman, N., G.L. Li, M. Dosemeci, W.E. Bechtold, G.E. Marti, Y.Z. Wang, M. Linet, L.Q. Xi, W. Lu, M.T. Smith, N. Titenko-Holland, L.P. Zhang, W. Blot, S.N. Yin, and R.B. Hayes (1996) Hematotoxicity among Chinese workers heavily exposed to benzene. Am. J. Ind. Med. 29: 236–246.

[72] U.S. EPA (2002) Toxicological Review of Benzene (Noncancer Effects). Environmental Protection Agency, Integrated Risk Information System (IRIS), Research and Development, National Center for Environmental Assessment, Washington DC. This material is available electronically at *http://www.epa.gov/iris/subst/0276.htm.*

[73] Qu, O.; Shore, R.; Li, G.; Jin, X.; Chen, C.L.; Cohen, B.; Melikian, A.; Eastmond, D.; Rappaport, S.; Li, H.; Rupa, D.; Suramaya, R.; Songnian, W.; Huifant, Y.; Meng, M.; Winnik, M.; Kwok, E.; Li, Y.; Mu, R.; Xu, B.; Zhang, X.; Li, K. (2003) HEI Report 115, Validation & Evaluation of Biomarkers in Workers Exposed to Benzene in China.

[74] Qu, Q., R. Shore, G. Li, X. Jin, L.C. Chen, B. Cohen, et al. (2002) Hematological changes among Chinese workers with a broad range of benzene exposures. Am. J. Industr. Med. 42: 275–285.

[75] Lan, Qing, Zhang, L., Li, G., Vermeulen, R., et al. (2004) Hematotoxically in Workers Exposed to Low Levels of Benzene. Science 306: 1774–1776.

[76] Turtletaub, K.W. and Mani, C. (2003) Benzene metabolism in rodents at doses relevant to human exposure from Urban Air. Research Reports Health Effect Inst. Report No.113.

[77] U.S. EPA (2002) Health Assessment of 1,3-Butadiene. Office of Research and Development, National Center for Environmental Assessment, Washington Office, Washington, DC. Report No. EPA600–P–98–001F. This document is available electronically at *http://www.epa.gov/iris/supdocs/buta-sup.pdf.*

[78] U.S. EPA (2002) Full IRIS Summary for 1,3-butadiene (CASRN 106–99–0). Environmental Protection Agency, Integrated Risk Information System (IRIS), Research and Development, National Center for Environmental Assessment, Washington, DC *http://www.epa.gov/iris/subst/0139.htm.*

[79] International Agency for Research on Cancer (IARC) (1999) Monographs on the evaluation of carcinogenic risk of chemicals to humans, Volume 71, Re-evaluation of some organic chemicals, hydrazine and hydrogen peroxide and Volume 97 (in preparation), World Health Organization, Lyon, France.

[80] U.S. Department of Health and Human Services (2005) National Toxicology Program 11th Report on Carcinogens available at: *ntp.niehs.nih.gov/index.cfm?objectid=32BA9724-F1F6-975E-7FCE50709CB4C932.*

[81] Bevan, C.; Stadler, J.C.; Elliot, G.S.; et al. (1996) Subchronic toxicity of 4-vinylcyclohexene in rats and mice by inhalation. Fundam. Appl. Toxicol. 32:1–10.

[82] U.S. EPA (1987) Assessment of Health Risks to Garment Workers and Certain Home Residents from Exposure to Formaldehyde, Office of Pesticides and Toxic Substances, April 1987.

[83] Hauptmann, M.; Lubin, J.H.; Stewart, P.A.; Hayes, R.B.; Blair, A. 2003. Mortality from lymphohematopoetic malignancies among workers in formaldehyde industries. Journal of the National Cancer Institute 95: 1615–1623.

[84] Hauptmann, M.; Lubin, J.H.; Stewart, P.A.; Hayes, R.B.; Blair, A. 2004. Mortality from solid cancers among workers in formaldehyde industries. American Journal of Epidemiology 159: 1117–1130.

[85] Pinkerton, L.E. 2004. Mortality among a cohort of garment workers exposed to formaldehyde: an update. Occup. Environ. Med. 61: 193–200.

[86] Coggon, D, EC Harris, J Poole, KT Palmer. 2003. Extended follow-up of a cohort of British chemical workers exposed to formaldehyde. J National Cancer Inst. 95:1608–1615.

[87] International Agency for Research on Cancer (IARC). 2006. Formaldehyde, 2-Butoxyethanol and 1-tert-Butoxypropan-2-ol. Volume 88. (in preparation), World Health Organization, Lyon, France.

[88] U.S. Department of Health and Human Services Agency for Toxic Substances and Disease Registry. 1999. Toxicological Profile for formaldehyde. Available at *http://www.atsdr.cdc.gov/toxprofiles/tp111.html.*

[89] U.S. EPA. 1991. Integrated Risk Information System File of Acetaldehyde. Research and Development, National Center for Environmental

anticipated to be a human carcinogen by the U.S. Department of Health and Human Services (DHHS) in the 11th Report on Carcinogens and is classified as possibly carcinogenic to humans (Group 2B) by the International Agency for Research on Carcinogens (IARC).[90, 91] EPA is currently conducting a reassessment of cancer and noncancer risk from inhalation exposure to acetaldehyde.

The primary noncancer effects of exposure to acetaldehyde vapors include irritation of the eyes, skin, and respiratory tract.[92] In short-term (4 week) rat studies, compound-related histopathological changes were observed only in the respiratory system at various concentration levels of exposure.[93, 94] Data from these studies were used by EPA to develop an inhalation reference concentration. Some asthmatics have been shown to be a sensitive subpopulation to decrements in functional expiratory volume (FEV1 test) and bronchoconstriction upon acetaldehyde inhalation.[95]

Acrolein: Acrolein is extremely acrid and irritating to humans when inhaled, with acute exposure resulting in upper respiratory tract irritation, mucus hypersecretion and congestion. Levels considerably lower than 1 ppm (2.3 mg/m$^3$) elicit subjective complaints of eye and nasal irritation and a decrease in the respiratory rate.[96, 97] Lesions to the lungs and upper respiratory tract of rats, rabbits, and hamsters have been observed after subchronic exposure to acrolein. Based on animal data, individuals with compromised respiratory function (e.g., emphysema, asthma) are expected to be at increased risk of developing adverse responses to strong respiratory irritants such as acrolein. This was demonstrated in mice with allergic airway-disease by comparison to non-diseased mice in a study of the acute respiratory irritant effects of acrolein.[98] EPA is currently in the process of conducting an assessment of acute exposure effects for acrolein. The intense irritancy of this carbonyl has been demonstrated during controlled tests in human subjects who suffer intolerable eye and nasal mucosal sensory reactions within minutes of exposure.[99]

EPA determined in 2003 that the human carcinogenic potential of acrolein could not be determined because the available data were inadequate. No information was available on the carcinogenic effects of acrolein in humans and the animal data provided inadequate evidence of carcinogenicity.[100] The IARC determined in 1995 that acrolein was not classifiable as to its carcinogenicity in humans.[101]

Polycyclic Organic Matter (POM): POM is generally defined as a large class of organic compounds which have multiple benzene rings and a boiling point greater than 100 degrees Celsius. Many of the compounds included in the class of compounds known as POM are classified by EPA as probable human carcinogens based on animal data. One of these compounds, naphthalene, is discussed separately below. Polycyclic aromatic hydrocarbons (PAHs) are a subset of POM that contain only hydrogen and carbon atoms. A number of PAHs are known or suspected carcinogens. Recent studies have found that maternal exposures to PAHs (a subclass of POM) in a population of pregnant women were associated with several adverse birth outcomes, including low birth weight and reduced length at birth, as well as impaired cognitive development at age three.[102, 103] EPA has not yet evaluated these recent studies.

Naphthalene: Naphthalene is found in small quantities in gasoline and diesel fuels but is primarily a product of combustion. EPA recently released an external review draft of a reassessment of the inhalation carcinogenicity of naphthalene.[104] The draft reassessment recently completed external peer review.[105] Based on external peer review comments received to date, additional analyses are being undertaken. This external review draft does not represent official agency opinion and was released solely for the purposes of external peer review and public comment. Once EPA evaluates public and peer reviewer comments, the document will be revised. The National Toxicology Program listed naphthalene as ''reasonably anticipated to be a human carcinogen'' in 2004 on the basis of bioassays reporting clear evidence of carcinogenicity in rats and some evidence of carcinogenicity in mice.[106] California EPA has released a new risk assessment for naphthalene, and the IARC has reevaluated naphthalene and re-classified it as Group 2B: Possibly carcinogenic to humans.[107] Naphthalene also causes a number of chronic non-cancer effects in animals, including

Assessment, Washington, DC. This material is available electronically at *http://www.epa.gov/iris/subst/0290.htm.*

[90] U.S. Department of Health and Human Services National Toxicology Program 11th Report on Carcinogens available at: *ntp.niehs.nih.gov/index.cfm?objectid=32BA9724-F1F6-975E-7FCE50709CB4C932.*

[91] International Agency for Research on Cancer (IARC). 1999. Re-evaluation of some organic chemicals, hydrazine, and hydrogen peroxide. IARC Monographs on the Evaluation of Carcinogenic Risk of Chemical to Humans, Vol 71. Lyon, France.

[92] U.S. EPA. 1991. Integrated Risk Information System File of Acetaldehyde. This material is available electronically at *http://www.epa.gov/iris/subst/0290.htm.*

[93] Appleman, L.M., R.A. Woutersen, V.J. Feron, R.N. Hooftman, and W.R.F. Notten. 1986. Effects of the variable versus fixed exposure levels on the toxicity of acetaldehyde in rats. J. Appl. Toxicol. 6: 331–336.

[94] Appleman, L.M., R.A. Woutersen, and V.J. Feron. 1982. Inhalation toxicity of acetaldehyde in rats. I. Acute and subacute studies. Toxicology. 23: 293–297.

[95] Myou, S.; Fujimura, M.; Nishi K.; Ohka, T.; and Matsuda, T. 1993. Aerosolized acetaldehyde induces histamine-mediated bronchoconstriction in asthmatics. Am. Rev. Respir. Dis. 148(4 Pt 1): 940–3.

[96] Weber-Tschopp, A; Fischer, T; Gierer, R; et al. (1977) Experimentelle reizwirkungen von Acrolein auf den Menschen. Int Arch Occup Environ Hlth. 40(2):117–130. In German.

[97] Sim, VM; Pattle, RE. (1957) Effect of possible smog irritants on human subjects. J Am Med Assoc. 165(15):1908–1913.

[98] Morris JB, Symanowicz PT, Olsen JE, et al. 2003. Immediate sensory nerve-mediated respiratory responses to irritants in healthy and allergic airway-diseased mice. J Appl Physiol. 94(4):1563–1571.

[99] Sim VM, Pattle RE. Effect of possible smog irritants on human subjects. JAMA. 165: 1980–2010, 1957.

[100] U.S. EPA. (2003). Integrated Risk Information System File of Acrolein. Research and Development, National Center for Environmental Assessment, Washington, DC. This material is available at *http://www.epa.gov/iris/subst/0364.htm.*

[101] International Agency for Research on Cancer (IARC). 1995. Monographs on the evaluation of carcinogenic risk of chemicals to humans, Volume 63, Dry cleaning, some chlorinated solvents and other industrial chemicals, World Health Organization, Lyon, France.

[102] Perera, F.P.; Rauh, V.; Tsai, W–Y.; et al. (2002) Effect of transplacental exposure to environmental pollutants on birth outcomes in a multiethnic population. Environ Health Perspect. 111: 201–205.

[103] Perera, F.P.; Rauh, V.; Whyatt, R.M.; Tsai, W.Y.; Tang, D.; Diaz, D.; Hoepner, L.; Barr, D.; Tu, Y.H.; Camann, D.; Kinney, P. (2006) Effect of prenatal exposure to airborne polycyclic aromatic hydrocarbons on neurodevelopment in the first 3 years of life among inner-city children. Environ Health Perspect. 114: 1287–1292.

[104] U.S. EPA (2004) Toxicological Review of Naphthalene (Reassessment of the Inhalation Cancer Risk), Environmental Protection Agency, Integrated Risk Information System, Research and Development, National Center for Environmental Assessment, Washington, DC. This material is available electronically at *http://www.epa.gov/iris/subst/0436.htm.*

[105] Oak Ridge Institute for Science and Education (2004) External Peer Review for the IRIS Reassessment of the Inhalation Carcinogenicity of Naphthalene. August 2004. *http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=84403.*

[106] National Toxicology Program (NTP). (2004). 11th Report on Carcinogens. Public Health Service, U.S. Department of Health and Human Services, Research Triangle Park, NC. Available from: *http://ntp-server.niehs.nih.gov.*

[107] International Agency for Research on Cancer (IARC) (2002) Monographs on the Evaluation of the Carcinogenic Risk of Chemicals for Humans. Vol. 82. Lyon, France.

abnormal cell changes and growth in respiratory and nasal tissues.[108]

*C. Environmental Impacts*

There are a number of public welfare effects associated with the presence of ozone, $NO_X$ and $PM_{2.5}$ in the ambient air. In this section we discuss visibility, the impact of deposition on ecosystems and materials, and the impact of ozone on plants, including trees, agronomic crops and urban ornamentals.

(1) Visibility

Visibility can be defined as the degree to which the atmosphere is transparent to visible light. Airborne particles degrade visibility by scattering and absorbing light. Visibility is important because it has direct significance to people's enjoyment of daily activities in all parts of the country. Individuals value good visibility for the well-being it provides them directly, where they live and work and in places where they enjoy recreational opportunities. Visibility is also highly valued in significant natural areas such as national parks and wilderness areas and special emphasis is given to protecting visibility in these areas. For more information on visibility, see the final 2004 PM AQCD as well as the 2005 PM Staff Paper.[109, 110]

EPA is pursuing a two-part strategy to address visibility. First, to address the welfare effects of PM on visibility, EPA has set secondary $PM_{2.5}$ standards which act in conjunction with the establishment of a regional haze program. In setting this secondary standard, EPA has concluded that $PM_{2.5}$ causes adverse effects on visibility in various locations, depending on PM concentrations and factors such as chemical composition and average relative humidity. Second, section 169 of the Clean Air Act provides additional authority to address existing visibility impairment and prevent future visibility impairment in the 156 national parks, forests and wilderness areas categorized as mandatory class I federal areas (62 FR 38680–81, July 18, 1997).[111] In July 1999, the regional haze rule (64 FR 35714) was put in place to protect the visibility in mandatory class I federal areas. Visibility can be said to be impaired in both $PM_{2.5}$ nonattainment areas and mandatory class I federal areas.

Locomotives and marine engines contribute to visibility concerns in these areas through their primary $PM_{2.5}$ emissions and their $NO_X$ emissions which contribute to the formation of secondary $PM_{2.5}$.

Current Visibility Impairment

As of October 10, 2007, almost 90 million people live in nonattainment areas for the 1997 $PM_{2.5}$ NAAQS. These populations, as well as large numbers of individuals who travel to these areas, are likely to experience visibility impairment. In addition, while visibility trends have improved in mandatory class I federal areas the most recent data show that these areas continue to suffer from visibility impairment.[112] In summary, visibility impairment is experienced throughout the U.S., in multi-state regions, urban areas, and remote mandatory class I federal areas.[113, 114]

Future Visibility Impairment

Air quality modeling conducted for this final rule was used to project visibility conditions in 133 mandatory class I federal areas across the U.S. in 2020 and 2030. The results indicate that improvement in visibility will occur in all mandatory class I federal areas although all areas will continue to have annual average deciview levels above background in 2020 and 2030. Chapter 2 of the RIA contains more detail on the visibility portion of the air quality modeling.

(2) Plant and Ecosystem Effects of Ozone

Elevated ozone levels contribute to environmental effects, with impacts to plants and ecosystems being of most concern. Ozone can produce both acute and chronic injury in sensitive species depending on the concentration level and the duration of the exposure. Ozone effects also tend to accumulate over the growing season of the plant, so that even low concentrations experienced for a longer duration have the potential to create chronic stress on vegetation. Ozone damage to plants includes visible injury to leaves and a reduction in food production through impaired photosynthesis, both of which can lead to reduced crop yields, forestry production, and use of sensitive ornamentals in landscaping. In addition, the reduced food production in plants and subsequent reduced root growth and storage below ground, can result in other, more subtle plant and ecosystems impacts. These include increased susceptibility of plants to insect attack, disease, harsh weather, interspecies competition and overall decreased plant vigor. The adverse effects of ozone on forest and other natural vegetation can potentially lead to species shifts and loss from the affected ecosystems, resulting in a loss or reduction in associated ecosystem goods and services. Lastly, visible ozone injury to leaves can result in a loss of aesthetic value in areas of special scenic significance like national parks and wilderness areas. The final 2006 Criteria Document presents more detailed information on ozone effects on vegetation and ecosystems.

As discussed above, locomotive and marine diesel engine emissions of $NO_X$ contribute to ozone and therefore the $NO_X$ standards will help reduce crop damage and stress on vegetation from ozone.

(3) Atmospheric Deposition

Wet and dry deposition of ambient particulate matter delivers a complex mixture of metals (e.g., mercury, zinc, lead, nickel, aluminum, cadmium), organic compounds (e.g., POM, dioxins, furans) and inorganic compounds (e.g., nitrate, sulfate) to terrestrial and aquatic ecosystems. The chemical form of the compounds deposited is impacted by a variety of factors including ambient conditions (e.g., temperature, humidity, oxidant levels) and the sources of the material. Chemical and physical transformations of the particulate compounds occur in the atmosphere as well as the media onto which they deposit. These transformations in turn influence the fate, bioavailability and potential toxicity of these compounds. Atmospheric deposition has been identified as a key component of the environmental and human health

[108] U.S. EPA (1998) Toxicological Review of Naphthalene, Environmental Protection Agency, Integrated Risk Information System, Research and Development, National Center for Environmental Assessment, Washington, DC. This material is available electronically at *http://www.epa.gov/iris/subst/0436.htm.*

[109] U.S. EPA (2004) Air Quality Criteria for Particulate Matter (Oct 2004), Volume I Document No. EPA600/P–99/002aF and Volume II Document No. EPA600/P–99/002bF. This document is available in Docket EPA–HQ–OAR–2003–0190.

[110] U.S. EPA (2005) Review of the National Ambient Air Quality Standard for Particulate Matter: Policy Assessment of Scientific and Technical Information, OAQPS Staff Paper. EPA–452/R–05–005. This document is available in Docket EPA–HQ–OAR–2003–0190.

[111] These areas are defined in section 162 of the Act as those national parks exceeding 6,000 acres, wilderness areas and memorial parks exceeding 5,000 acres, and all international parks which were in existence on August 7, 1977.

[112] U.S. EPA (2002). Latest Findings on National Air Quality—2002 Status and Trends. EPA 454/K–03–001.

[113] U.S. EPA. Air Quality Designations and Classifications for the Fine Particles ($PM_{2.5}$) National Ambient Air Quality Standards, December 17, 2004. (70 FR 943, Jan 5, 2005) This document is also available on the Web at: *http://www.epa.gov/pmdesignations/.*

[114] U.S. EPA. Regional Haze Regulations, July 1, 1999. (64 FR 35714, July 1, 1999).

hazard posed by several pollutants including mercury, dioxin and PCBs.[115]

Adverse impacts on water quality can occur when atmospheric contaminants deposit to the water surface or when material deposited on the land enters a water body through runoff. Potential impacts of atmospheric deposition to water bodies include those related to both nutrient and toxic inputs. Adverse effects to human health and welfare can occur from the addition of excess particulate nitrate nutrient enrichment, which contributes to toxic algae blooms and zones of depleted oxygen, which can lead to fish kills, frequently in coastal waters. Particles contaminated with heavy metals or other toxins may lead to the ingestion of contaminated fish, ingestion of contaminated water, damage to the marine ecology, and limited recreational uses. Several studies have been conducted in U.S. coastal waters and in the Great Lakes Region in which the role of ambient PM deposition and runoff is investigated.[116, 117, 118, 119, 120]

Adverse impacts on soil chemistry and plant life have been observed for areas heavily impacted by atmospheric deposition of nutrients, metals and acid species, resulting in species shifts, loss of biodiversity, forest decline and damage to forest productivity. Potential impacts also include adverse effects to human health through ingestion of contaminated vegetation or livestock (as in the case for dioxin deposition), reduction in crop yield, and limited use of land due to contamination.

The $NO_X$, VOC and PM standards finalized in this action will help reduce the environmental impacts of atmospheric deposition.

(4) Materials Damage and Soiling

The deposition of airborne particles can reduce the aesthetic appeal of buildings and culturally important articles through soiling, and can contribute directly (or in conjunction with other pollutants) to structural damage by means of corrosion or erosion.[121] Particles affect materials principally by promoting and accelerating the corrosion of metals, by degrading paints, and by deteriorating building materials such as concrete and limestone. Particles contribute to these effects because of their electrolytic, hygroscopic, and acidic properties, and their ability to adsorb corrosive gases (principally sulfur dioxide). The rate of metal corrosion depends on a number of factors, including the deposition rate and nature of the pollutant; the influence of the metal protective corrosion film; the amount of moisture present; variability in the electrochemical reactions; the presence and concentration of other surface electrolytes; and the orientation of the metal surface.

The $PM_{2.5}$ standards finalized in this action will help reduce the airborne particles that contribute to materials damage and soiling.

*D. Other Criteria Pollutants Affected by This Final Rule*

Locomotive and marine diesel engines account for about 1 percent of the mobile source carbon monoxide (CO) inventory. Carbon monoxide (CO) is a colorless, odorless gas produced through the incomplete combustion of carbon-based fuels. The current primary NAAQS for CO are 35 ppm for the 1-hour average and 9 ppm for the 8-hour average. These values are not to be exceeded more than once per year. As of October 10, 2007, there are 854 thousand people living in 4 areas (made up of 5 counties) that are designated as nonattainment for CO.

Carbon monoxide enters the bloodstream through the lungs, forming carboxyhemoglobin and reducing the delivery of oxygen to the body's organs and tissues. The health threat from CO is most serious for those who suffer from cardiovascular disease, particularly those with angina or peripheral vascular disease. Healthy individuals also are affected, but only at higher CO levels. Exposure to elevated CO levels is associated with impairment of visual perception, work capacity, manual dexterity, learning ability and performance of complex tasks. Carbon monoxide also contributes to ozone nonattainment since carbon monoxide reacts photochemically in the atmosphere to form ozone. Additional information on CO related health effects can be found in the Air Quality Criteria for Carbon Monoxide.[122]

*E. Emissions from Locomotive and Marine Diesel Engines*

(1) Overview

The engine standards in this final rule will affect emissions of $PM_{2.5}$, $NO_X$, VOCs, CO, and air toxics for locomotive and marine diesel engines. Based on our analysis for this rulemaking, we estimate that in 2001 locomotive and marine diesel engines contributed almost 60,000 tons (18 percent) to the national mobile source diesel $PM_{2.5}$ inventory and about 2.0 million tons (16 percent) to the mobile source $NO_X$ inventory. In 2030, absent the standards finalized today, these engines will contribute about 50,000 tons (65 percent) to the mobile source diesel $PM_{2.5}$ inventory and almost 1.6 million tons (35 percent) to the mobile source $NO_X$ inventory. Under today's final standards, by 2030, annual $NO_X$ emissions from these engines will be reduced by 800,000 tons, $PM_{2.5}$ emissions by 27,000 tons, and VOC emissions by 43,000 tons.

Locomotive and marine diesel engine emissions are expected to continue to be a significant part of the mobile source emissions inventory, both nationally and in ozone and $PM_{2.5}$ nonattainment areas, in the coming years. Absent the standards finalized today, we expect overall emissions from these engines to decrease modestly over the next ten to fifteen years then remain relatively flat through 2025 due to existing regulations such as lower fuel sulfur requirements, the phase-in of locomotive and marine diesel Tier 1 and Tier 2 engine standards, and the current Tier 0 locomotive remanufacturing requirements. Starting after 2025, emission inventories from these engines once again begin increasing due to growth in the locomotive and marine sectors, see Table II–2.

Each sub-section below discusses one of the affected pollutants, including expected emissions reductions associated with the final standards. Table II–2 summarizes the impacts of this rule for 2012, 2015, 2020, 2030 and

[115] U.S. EPA (2000). Deposition of Air Pollutants to the Great Waters: Third Report to Congress. Office of Air Quality Planning and Standards. EPA–453/R–00–0005. This document is available in Docket EPA–HQ–OAR–2003–0190.

[116] U.S. EPA (2004). National Coastal Condition Report II. Office of Research and Development/ Office of Water. EPA–620/R–03/002. This document is available in Docket EPA–HQ–OAR–2003–0190.

[117] Gao, Y., E.D. Nelson, M.P. Field, et al. 2002. Characterization of atmospheric trace elements on $PM_{2.5}$ particulate matter over the New York-New Jersey harbor estuary. Atmos. Environ. 36: 1077–1086.

[118] Kim, G., N. Hussain, J.R. Scudlark, and T.M. Church. 2000. Factors influencing the atmospheric depositional fluxes of stable Pb, 210Pb, and 7Be into Chesapeake Bay. J. Atmos. Chem. 36: 65–79.

[119] Lu, R., R.P. Turco, K. Stolzenbach, et al. 2003. Dry deposition of airborne trace metals on the Los Angeles Basin and adjacent coastal waters. J. Geophys. Res. 108(D2, 4074): AAC 11–1 to 11–24.

[120] Marvin, C.H., M.N. Charlton, E.J. Reiner, et al. 2002. Surficial sediment contamination in Lakes Erie and Ontario: A comparative analysis. J. Great Lakes Res. 28(3): 437–450.

[121] U.S. EPA (2005). Review of the National Ambient Air Quality Standards for Particulate Matter: Policy Assessment of Scientific and Technical Information, OAQPS Staff Paper. This document is available in Docket EPA–HQ–OAR–2003–0190.

[122] U.S. EPA (2000). Air Quality Criteria for Carbon Monoxide, EPA/600/P–99/001F. This document is available in Docket EPA–HQ–OAR–2003–0190.

2040. Further details on our inventory estimates are available in chapter 3 of the RIA.

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**Table II- 2 Estimated National (50 State) Reductions in Emissions from Locomotive and Marine Diesel Engines**

| Pollutant [short tons] | 2012 | 2015 | 2020 | 2030 | 2040 |
|---|---|---|---|---|---|
| **Direct $PM_{2.5}$** | | | | | |
| $PM_{2.5}$ Emissions Without Rule | 53,000 | 48,000 | 46,000 | 46,000 | 49,000 |
| $PM_{2.5}$ Emissions with Rule | 49,000 | 41,000 | 32,000 | 20,000 | 13,000 |
| $PM_{2.5}$ Reductions Resulting from Rule | 4,000 | 7,000 | 14,000 | 27,000 | 37,000 |
| | | | | | |
| **$NO_x$** | | | | | |
| $NO_x$ Emissions Without Rule | 1,678,000 | 1,635,000 | 1,584,000 | 1,584,000 | 1,708,000 |
| $NO_x$ Emissions with Rule | 1,591,000 | 1,474,000 | 1,213,000 | 790,000 | 564,000 |
| $NO_x$ Reductions Resulting from Rule | 87,000 | 161,000 | 371,000 | 795,000 | 1,144,000 |
| | | | | | |
| **VOC** | | | | | |
| VOC Emissions Without Rule | 71,000 | 70,000 | 70,000 | 71,000 | 76,000 |
| VOC Emissions with Rule | 63,000 | 55,000 | 42,000 | 28,000 | 21,000 |
| VOC Reductions Resulting from Rule | 8,000 | 15,000 | 28,000 | 43,000 | 55,000 |

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(2) $PM_{2.5}$ Emission Reductions

As described earlier, EPA believes that reductions of diesel $PM_{2.5}$ emissions are an important part of the nation's progress toward clean air. $PM_{2.5}$ reductions resulting from this final rule will reduce hazardous air pollutants or air toxics from these engines, reduce diesel exhaust exposure in communities near these emissions sources, and help areas address visibility and other environmental impacts associated with $PM_{2.5}$ emissions.

In 2001, annual emissions from locomotive and marine diesel engines totaled about 60,000 tons (18 percent) of the national mobile source diesel $PM_{2.5}$ inventory and by 2030 these engines, absent this final rule, contribute about 50,000 tons (65 percent) of the mobile source diesel $PM_{2.5}$ inventory. Both Table II–2 and Figure II–2 show that $PM_{2.5}$ emissions are relatively flat through 2030 before beginning to rise again due to growth in these sectors.

Table II–2 and Figure II–2 present $PM_{2.5}$ emission reductions from locomotive and marine diesel engines with the final standards required in this rule. Emissions of $PM_{2.5}$ drop in 2012 and 2015 by 4,200 and 7,300 tons respectively. By 2020, annual $PM_{2.5}$ reductions total 14,500 tons and by 2030 emissions are reduced further by 27,000 tons annually. Significant reductions from these engines continue through 2040 when approximately 37,000 tons of $PM_{2.5}$ are annually eliminated as a result of this rule.

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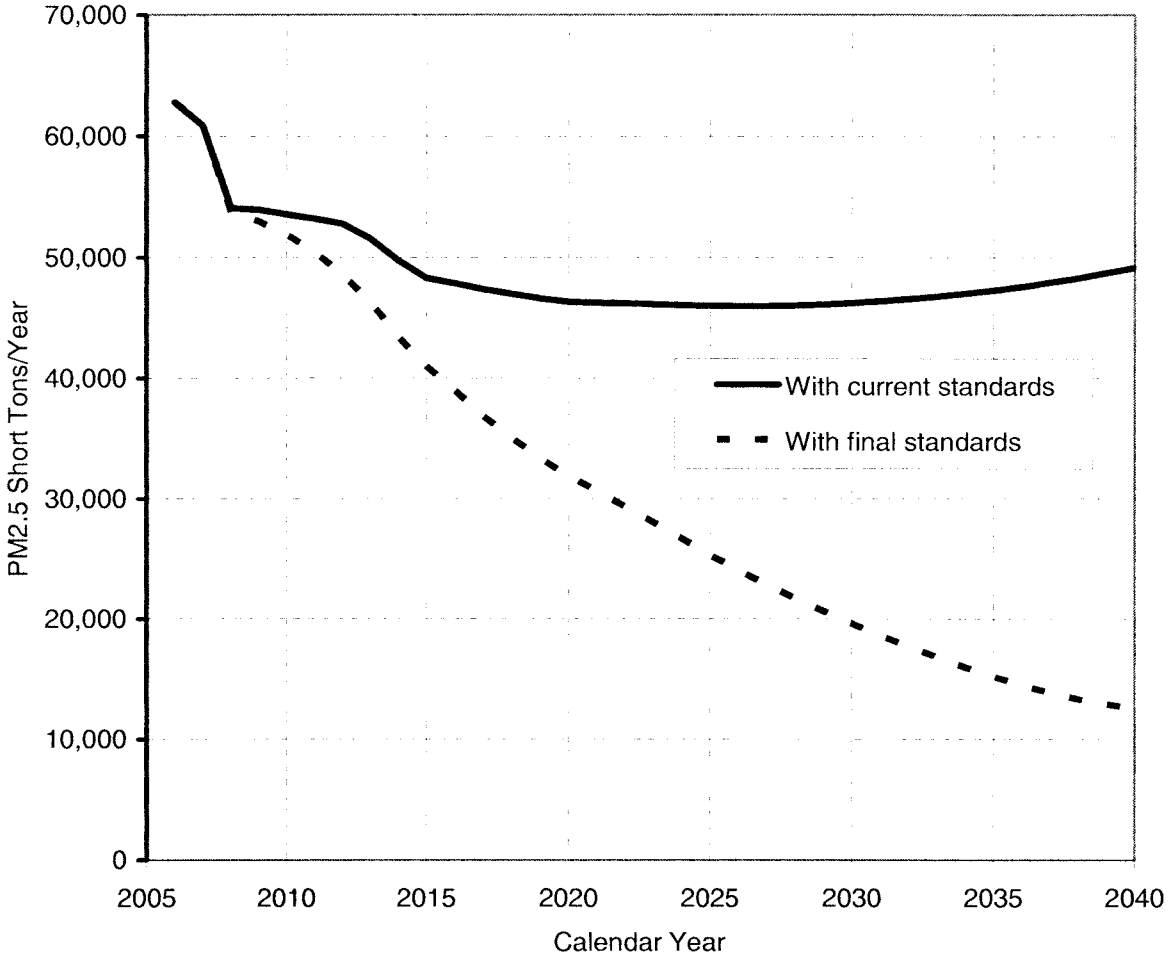
**Figure II-2 $PM_{2.5}$ Reductions from Final Rule**

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(3) $NO_X$ Emissions Reductions

In 2001 annual emissions from locomotive and marine diesel engines totaled about 2.0 million tons. Due to earlier engine standards for these engines, annual $NO_X$ emissions drop to approximately 1.6 million tons in 2030. Both Table II–2 and Figure II–3 show $NO_X$ emissions remaining fairly flat through 2030 before beginning to rise again due to growth in these sectors.

As shown in Table II–2 and Figure II–3, in the near term this rule reduces annual $NO_X$ emissions from the current national inventory baseline by 87,000 tons in 2012 and 161,000 tons in 2015. By 2020, annual $NO_X$ emissions are cut by 371,000 tons and by 2030—795,000 tons are eliminated. As with $PM_{2.5}$ emissions, a yearly decline in $NO_X$ emissions continues through 2040 when more than 1.1 million tons of $NO_X$ are annually reduced from locomotive and marine diesel engines.

These numbers are comparable to emission reductions projected in 2030 for our already established Clean Air Nonroad Diesel (CAND) program. Table II–3 provides the 2030 $NO_X$ emission reductions (and PM reductions) for this rule compared to the Heavy-Duty Highway rule and CAND rule. The 2030 $NO_X$ reductions of about 738,000 tons for the CAND rule are slightly less than those from this rule.

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**Figure II-3 $NO_x$ Reductions from Rule**

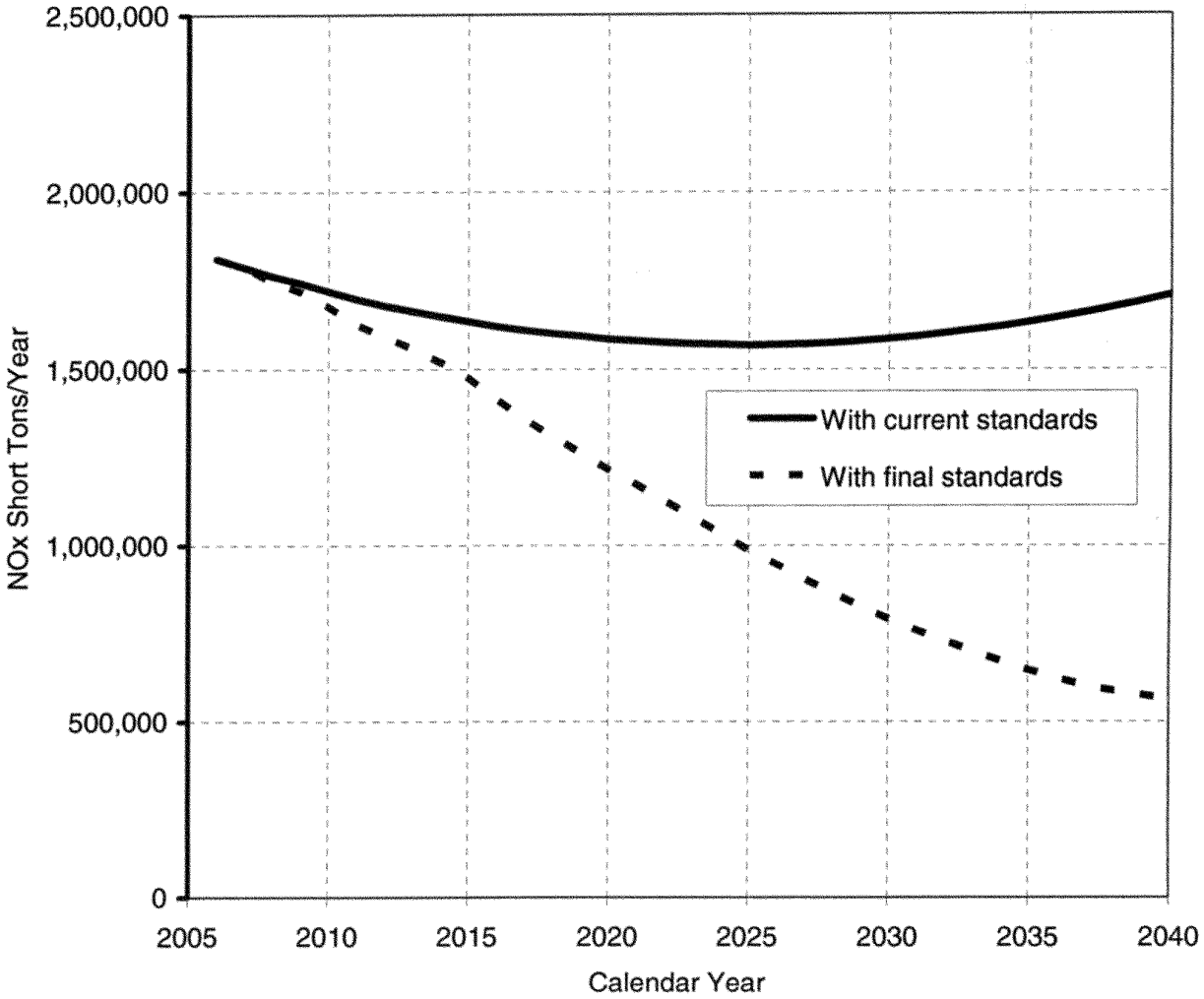


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TABLE II–3.—PROJECTED 2030 EMISSIONS REDUCTIONS FROM RECENT MOBILE SOURCE RULES

[Short tons]

| Rule | $NO_X$ | $PM_{2.5}$ |
|---|---|---|
| Locomotive and Marine | 795,000 | 27,000 |
| Clean Air Nonroad Diesel | 738,000 | 129,000 |
| Heavy-Duty Highway | 2,600,000 | 109,000 |

(4) Volatile Organic Compounds Emissions Reductions

Emissions of volatile organic compounds (VOCs) from locomotive and marine diesel engines are shown in Table II–2, along with the estimates of the reductions we expect from the HC standard in our rule in 2012, 2015, 2020, 2030 and 2040. In 2012, 8,000 tons of VOCs are reduced and in 2015 15,000 tons are annually eliminated from the inventory. By 2020, reductions will expand to 28,000 tons annually from these engines. Over the next ten years, annual reductions from controlled locomotive and marine diesel engines will produce annual VOC reductions of 43,000 tons in 2030 and 55,000 tons in 2040. Figure II–4 shows our estimate of VOC emissions between 2006 and 2040 both with and without this rule.

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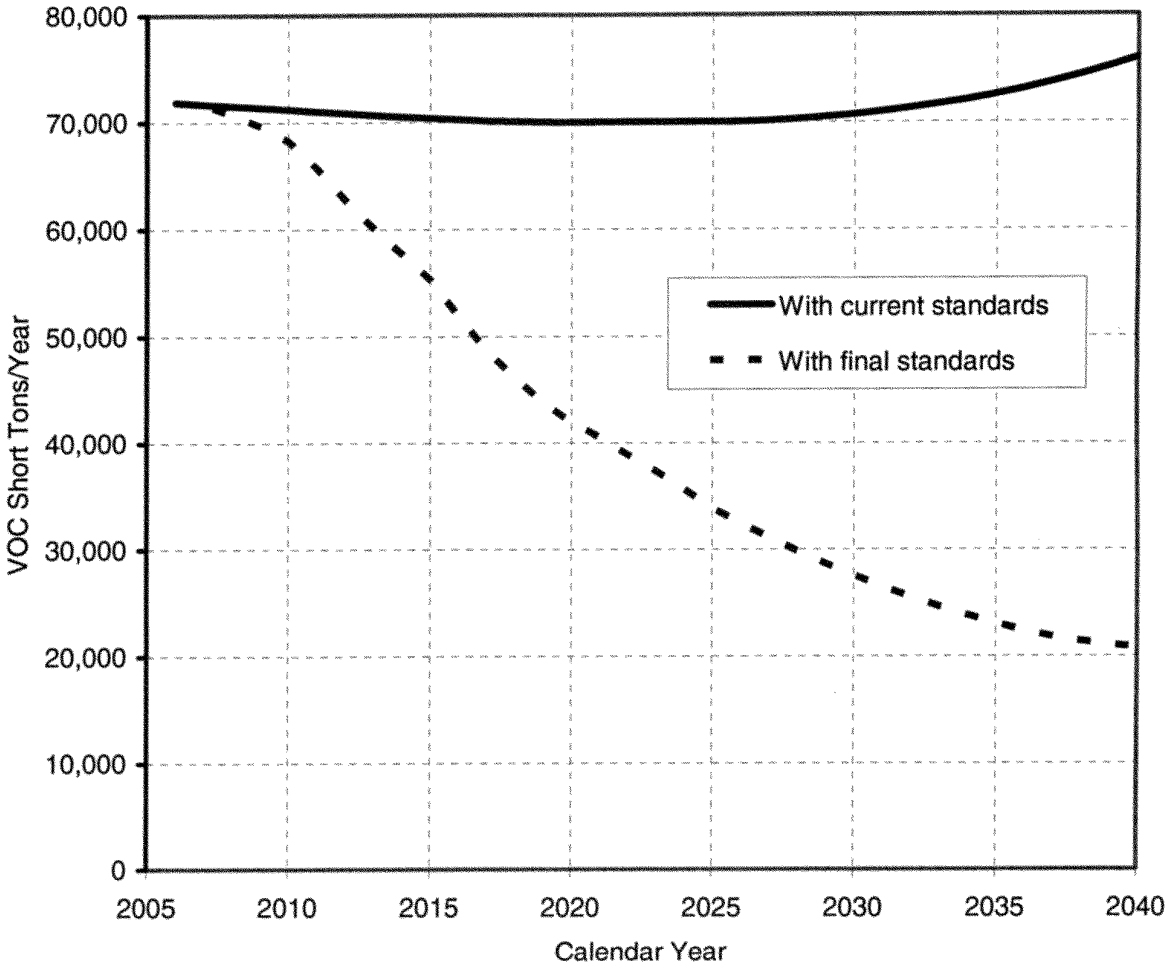
**Figure II-4 VOC Reductions from Rule**

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## III. Emission Standards

This section details the emission standards, implementation dates, and other major requirements of the new program. Following brief summaries of the types of locomotives and marine engines covered, we describe the provisions for:

- Standards for remanufactured Tier 0, 1, and 2 locomotives,
- Tier 3 and Tier 4 standards for newly-built line-haul locomotives,
- Standards and other provisions for switch locomotives,
- Requirements to reduce idling locomotive emissions,
- Tier 3 and Tier 4 standards for newly-built marine diesel engines, and
- Standards for remanufactured marine diesel engines.

An assessment of the technological feasibility of the standards follows the program description. To ensure that the benefits of the standards are realized throughout the useful life of these engines, and to incorporate lessons learned over the last few years from the existing test and compliance programs, we are also revising test procedures and related certification requirements, and adding comparable provisions for remanufactured marine diesel engines. These are described in section IV.

### *A. What Locomotives and Marine Engines Are Covered?*

The regulations being adopted affect locomotives currently regulated under part 92 and marine diesel engines and vessels currently regulated under parts 89, 1039, and 94, as described below.[123] In addition, they apply to existing marine diesel engines above 600 kW (800 hp).

With some exceptions, the locomotive regulations apply for all locomotives originally built in or after 1973 that operate extensively within the United States. See section IV.B for a discussion of the exemption for locomotives that are used only incidentally within the U.S. The exceptions include historic steam-powered locomotives and locomotives powered solely by an external source of electricity. In addition, the regulations generally do not apply to some existing locomotives owned by small businesses. Furthermore, engines used in

[123] All of the regulatory parts referenced in this preamble are parts in Title 40 of the Code of Federal Regulations, unless otherwise noted.

locomotive-type vehicles with less than 750 kW (1006 hp) total power (used primarily for railway maintenance), engines used only for hotel power (for passenger railcar equipment), and engines that are used in self-propelled passenger-carrying railcars, are excluded from these regulations. The engines used in these smaller locomotive-type vehicles are generally subject to the nonroad engine requirements of Parts 89 and 1039.

The marine diesel engine program applies to all propulsion and auxiliary engines with per cylinder displacement up to 30 liters.[124] For purposes of these standards, these marine diesel engines are categorized both by per cylinder displacement and by maximum engine power.

According to our existing definitions, a marine engine is defined as an engine that is installed or intended to be installed on a marine vessel. Engines that are on a vessel but that are not ''installed'' are generally considered to be land-based nonroad engines and are regulated under 40 CFR part 89 or part 1039. Consistent with our current marine diesel engine program, the standards adopted in this rule apply to engines manufactured for sale in the United States or imported into the United States beginning with the effective date of the standards. The standards also apply to any engine installed for the first time in a marine vessel after it has been used in another application subject to different emission standards. In other words, an existing nonroad diesel engine would become a new marine diesel engine, and subject to the marine diesel engine standards, when it is marinized for use in a marine application.

Consistent with our current program, the marine engine standards we are finalizing will not apply to marine diesel engines installed on foreign vessels. While we received many comments requesting that we extend the new standards to engines on foreign vessels operating in the United States, we have determined that it is appropriate to postpone this decision to our rulemaking for Category 3 marine diesel engines. This will allow us to consider all engines on an ocean-going vessel as a system; this may facilitate the application of advanced emission control technologies because these engines often share a common fuel and/or exhaust system. This approach is also consistent with the United States Government's proposal to amend Annex VI of the International Convention for the Prevention of Pollution from Ships (MARPOL) currently under consideration at the International Maritime Organization (IMO), which calls for significant emission reductions from all engines on ocean-going vessels.[125] EPA expects to finalize new Category 3 engine emission standards in late 2009.[126]

*B. What Standards Are We Adopting?*

(1) Locomotive Standards

(a) Line-Haul Locomotives

We are setting new emission standards for newly-built and remanufactured line-haul locomotives. Our standards for newly-built line-haul locomotives will be implemented in two tiers: Tier 3, based on engine design improvements, and Tier 4, based on the application of the high-efficiency catalytic aftertreatment technologies now being developed and introduced in the highway diesel sector. Our standards for remanufactured line-haul locomotives apply to all Tier 0, 1, and 2 locomotives and are based on engine design improvements. Table III–1 summarizes the line-haul locomotive standards and implementation dates. The feasibility of the new standards and the technologies involved are discussed in detail in section III.C.

TABLE III.—1 LINE-HAUL LOCOMOTIVE STANDARDS

[g/bhp-hr]

| Standards apply to | Take effect in year | PM | $NO_X$ | HC |
|---|---|---|---|---|
| Remanufactured Tier 0 without separate loop intake air cooling. | 2008 as Available, 2010 Required | 0.22 | 8.0 | 1.00 |
| Remanufactured Tier 0 with separate loop intake air cooling. | 2008 as Available, 2010 Required | 0.22 | 7.4 | 0.55 |
| Remanufactured Tier 1 | 2008 as Available, 2010 Required | 0.22 | 7.4 | 0.55 |
| Remanufactured Tier 2 | 2008 as Available, 2013 Required | 0.10 | 5.5 | 0.30 |
| New Tier 3 | 2012 | 0.10 | 5.5 | 0.30 |
| New Tier 4 | 2015 | 0.03 | 1.3 | 0.14 |

(i) Remanufactured Locomotives

As proposed, we are setting new standards for the existing fleet of Tier 0, Tier 1, and Tier 2 locomotives, to apply at the time of remanufacture. These standards will also apply at the first remanufacture of Tier 2 locomotives added to the fleet between now and the start of Tier 3.

Commenters have suggested that EPA adopt a naming convention for the standards tiers to avoid confusion over whether, for example, the terms ''Tier 0 standards'' and ''Tier 0 locomotives'' are referring to the ''old'' Tier 0 standards adopted in 1998 or the ''new'' Tier 0 standards promulgated in this rule. A similar confusion may exist for old and new Tier 1 and Tier 2 standards, including for marine engines. The confusion is compounded by the fact that many of the locomotives previously subject to the old Tier 0 standards will now be subject to the new Tier 1 standards, and so a Tier 0 locomotive that is upgraded to meet them could fairly be called a Tier 1 locomotive, and likewise for Tier 2/Tier 3 standards.

[124] Marine diesel engines at or above 30 liters per cylinder, called Category 3 engines, are typically used for propulsion power on ocean-going ships. EPA is addressing Category 3 engines through separate actions, including a planned rulemaking for a new tier of federal standards (see Advance Notice of Proposed Rulemaking published December 7, 2007 at 72 FR 69522) and participation on the U.S. delegation to the International Maritime Organization for negotiations of new international standards (see *http://www.epa.gov/otaq/oceanvessels.com* for information on both of those actions), as well as EPA's Clean Ports USA Initiative (see *http://www.epa.gov/cleandiesel/ports/index.htm*).

[125] See ''Revision of the MARPOL Annex VI, the $NO_X$ Technical Code and Related Guidelines; Development of Standards for $NO_X$, PM, and $SO_X$,'' submitted by the United States, BLG 11/15, Sub-Committee on Bulk Liquids and Gases, 11th Session, Agenda Item 5, February 9, 2007, Docket ID EPA–HQ–OAR–2007–0121–0034. This document, along with the U.S. Statement concerning the same, is also available on our Web site: *www.epa.gov/otaq/oceanvessels.com*.

[126] See 72 FR 68518, December 5, 2007 for the new regulatory deadline for the final rule for an additional tier of standards for Category 3 rulemaking (final rule by December 17, 2009).

In response, we are adopting a simple approach whereby a Tier 0 locomotive remanufactured under the more stringent Tier 0 standards we are adopting in this rule will be designated a Tier 0+ locomotive. A Tier 0 locomotive originally manufactured with a separate loop intake air cooling system that is remanufactured to the Tier 1+ standards will be designated as a Tier 1+ locomotive. We are adopting the same approach for Tier 1 and Tier 2 locomotives. That is, those remanufactured under the new standards would be called Tier 1+ and Tier 2+ locomotives, respectively. We are also suggesting that in many contexts, including a number of places in this final rule, there is really no need to make distinctions of this sort, as no ambiguity arises. In these contexts it would be perfectly acceptable to drop the ''+'' designation and simply refer to Tier 0, 1, and 2 locomotives and standards.

As described in section IV.B(3), the new Tier 0+, 1+, and 2+ standards (and corresponding switch-cycle standards) may apply when a Tier 0, 1, or 2 locomotive is remanufactured anytime after this final rule takes effect, if a certified remanufacture system is available. However, this early certification is voluntary on the part of the manufacturers, and so if no emissions control system is certified early for a locomotive, these standards will instead apply beginning January 1, 2010 for Tier 0 and 1, and no later than January 1, 2013 for Tier 2. We are also adopting the proposed reasonable cost provision, described in section IV.B(3), to protect against the unlikely event that the only certified systems made in the early program phase are exorbitantly priced.

Although under this approach, certification of new remanufacture systems in the early phase of the program is voluntary, we believe that developers will strive to certify systems to the new standards as early as possible, even in 2008, to establish these products in the market, especially for the locomotive models anticipated to have significant numbers coming due for remanufacture in the next few years. This focus on higher volume products also maximizes the potential for large emission reductions very early in this program, greatly offsetting the effect of slow turnover to new Tier 3 and Tier 4 locomotives inherent in this sector.

These remanufactured locomotive standards represent PM reductions of about 50 percent for Tier 0 and Tier 1 locomotives, and $NO_X$ reductions of about 20 percent for Tier 0+ locomotives with separate loop aftercooling. Significantly, these reductions will be substantial in the early years. This will be important to State Implementation Plans (SIPs) being developed to achieve attainment with the NAAQS, owing to the 2008 start date and relatively rapid remanufacture schedule (roughly every 7 years, though it varies by locomotive model and age).

Some commenters argued for delaying the remanufactured locomotive standards and some argued for accelerating them. However, little technical justification was provided on either side and, after reconsideration, we believe the proposed standards and dates are appropriate. However, based on the comments, we have identified two current Tier 0 locomotive models that are not likely to meet the new standards under the full range of required test conditions, owing to limitations in the original locomotive design. These are the General Electric (GE) Dash-8 locomotives not equipped with separate loop aftercooling, and the Electro-Motive Diesel (EMD) SD70MAC locomotives that are equipped with separate loop aftercooling. As a result, we are allowing an exception in ambient temperature and altitude conditions under which these models, when remanufactured, must meet the new standards, as detailed in the Part 1033 regulations. These exceptions are limited to the extent that it is technically feasible to meet the relevant standards under most in-use conditions.

(ii) Newly-Built Locomotives

We are adopting the proposed Tier 3 and Tier 4 line-haul locomotive standards but with an earlier start date for Tier 4 $NO_X$, along with an additional compliance flexibility option. We requested comment in the NPRM on whether additional $NO_X$ emission reductions would be feasible and appropriate for Tier 3 locomotives in the 2012 timeframe, based on reoptimization of existing Tier 2 $NO_X$ control technologies, or the addition of new engine-based technologies such as exhaust gas recirculation (EGR). Manufacturers submitted detailed technical comments indicating that achieving such reductions would result in a large fuel economy penalty, a major engine redesign that would hamper Tier 4 technology development, or both. Our own review of the technical options leads us to the same conclusion and we are therefore finalizing the Tier 3 emissions standards as proposed.

We proposed to allow manufacturers to defer meeting the Tier 4 $NO_X$ standard on newly-built locomotives until the 2017 model year, in order to work through any implementation and technological issues that might arise with advanced $NO_X$ control technology. Even so, we expected that manufacturers would undertake a single comprehensive redesign program for Tier 4, relying on the same basic locomotive platform and overall emission control space allocations for all Tier 4 product years. With this in mind, we proposed that locomotives certified under Tier 4 in 2015 and 2016 without Tier 4 $NO_X$ control systems should have these systems added when they undergo their first remanufacture and be subject to the Tier 4 $NO_X$ standard thereafter.

We received many comments from state and local air quality agencies, and from environmental organizations, arguing that earlier implementation of these advanced technologies is technologically feasible and emphatically stating that they were needed to address the nation's air quality problems. Further review of the test data available for the proposed rule and of new test data available since the proposal supports the argument for earlier implementation of Tier 4 $NO_X$ controls. This information is discussed in detail in section III.C. Consequently, after considering this data and industry comments regarding feasibility, we have concluded that the progress made in the development of $NO_X$ aftertreatment technology has been such that this proposed allowance to defer $NO_X$ control is not consistent with our obligation under section 213(a)(3) of the Clean Air Act to set standards that ''achieve the greatest degree of emission reduction achievable through the application of technology which the Administrator determines will be available for the engines or vehicles, giving appropriate consideration to cost, lead time, noise, energy, and safety factors associated with the application of such technology.''

We are therefore not adopting this allowance for deferred $NO_X$ control in 2015–2016 Tier 4 locomotives, effectively advancing the Tier 4 $NO_X$ standard for locomotives by two years. Besides meeting our obligation under the Clean Air Act, this change will simplify the certification and compliance program for all stakeholders by providing a single step for Tier 4 implementation. It will also provide substantial additional $NO_X$ reductions during years that are important to some states for NAAQS attainment, thus helping to address what was arguably the most critical comment we received from state and local air agencies and environmental organizations.

We recognize that designing locomotives to meet the stringent Tier 4

standards in 2015 with the high levels of performance and reliability demanded by the railroad industry will be challenging. As in other recent EPA mobile source programs, we proposed and are finalizing several compliance flexibility measures to aid the transition to these very clean technologies. Specifically, we are adopting two distinct compliance flexibility options for $NO_X$ that, while ensuring the earliest possible introduction of advanced emission control, will provide locomotive manufacturers some level of risk mitigation should the technology solutions prove to be less robust than we project. The first compliance flexibility is consistent with the flexibility program described in our NPRM providing an in-use compliance margin for $NO_X$ of 1.3 g/bhp-hr at full useful life (*i.e.*, a 2.6 g/bhp-hr emissions cap for in-use testing) for the first three Tier 4 model years. See section IV.A(8) for details on this program.

The second flexibility provision is an alternative $NO_X$ compliance option that reduces the in-use $NO_X$ add-on to 0.6 g/bhp-hr (*i.e.*, a 1.9 g/bhp-hr emissions cap for any in-use testing) for model years 2015–2022. While significantly tightening the in-use emissions cap, the provision provides manufacturers with significantly more time to develop advanced $NO_X$ emission control systems using real in-use experiences from the locomotive fleet. Complementing this focus on improving technology through experience with the in-use fleet, this provision also allows manufacturers to substitute additional in-use tests on locomotives in lieu of the typical production line testing requirements of our locomotive regulations. This optional in-use testing would be in addition to the current in-use testing requirements of our locomotive certification program. See section IV.A(8) for details on this program.

For reasons explained in the NPRM, Tier 4 line-haul locomotives will not be required to meet standards on the switch cycle, but we are requiring that newly-built Tier 3 locomotives and Tier 0 through Tier 2 locomotives remanufactured under this program be subject to switch cycle standards, set at levels above the line-haul cycle standards. Section III.B(1)(b) provides details.

(b) Switch Locomotives

The NPRM discussed at some length the importance and challenges of turning over today's large switch locomotive fleet to clean diesel. In response, we proposed standards and other provisions aimed at overcoming these challenges by encouraging the replacement of old high-emitting units with newly-built or refurbished locomotives powered by very clean engines developed for the nonroad equipment market.

We are adopting the new standards for switch locomotives that we proposed. As proposed, we are also continuing the existing Part 92 policy of requiring Tier 0 switch locomotives to only meet standards on the switch cycle, while requiring Tier 1 and Tier 2 locomotives to meet the applicable standards on both the line-haul and switch cycles. This policy was adopted to ensure that manufacturers design emission controls to function broadly over all notches. The switch cycle standards shown in Table III–2 will require emission reductions equivalent to those required by our new standards that apply over the line-haul cycle. Note that these switch cycle standards also apply to the Tier 3 and earlier line-haul locomotives that are subject to compliance requirements on the switch cycle, as mentioned above and in Section III.B(1)(b).

We are also adopting the proposed Tier 3 and 4 emission standards for newly-built switch locomotives, as shown in Table III–2. These standards are slightly more stringent than the Tier 3 and Tier 4 line-haul standards. Given these more stringent switch cycle standards, it is not necessary to require to Tier 3 and 4 switchers to meet the line-haul standards over the line-haul cycle.

TABLE III.—2 EMISSION STANDARDS FOR SWITCH LOCOMOTIVES

[g/bhp-hr]

| Switch locomotive standards apply to | Take effect in year | PM | $NO_X$ | HC |
|---|---|---|---|---|
| Remanufactured Tier 0 | 2008 as available, 2010 required | 0.26 | 11.8 | 2.10 |
| Remanufactured Tier 1 | 2008 as available, 2010 required | 0.26 | 11.0 | 1.20 |
| Remanufactured Tier 2 | 2008 as available, 2013 required | 0.13 | 8.1 | 0.60 |
| Tier 3 | 2011 | 0.10 | 5.0 | 0.60 |
| Tier 4 | 2015 | 0.03 | 1.3 | 0.14 |

We are also finalizing the proposed streamlined certification option to help in the early implementation of the switch locomotive program. As described in section IV.B(9), during a 10-year program start-up period aimed at encouraging the turnover of the existing switcher fleet to the new cleaner engines, switch locomotives may use nonroad-certified engines (Table III–3) without need for an additional certification under the locomotive program. In the years before the nonroad Tier 4 start dates, we are making this provision available using pre-Tier 4 nonroad engines meeting today's standards of 0.15 g/bhp-hr PM and 3.0/4.8 g/bhp-hr $NO_X$+NMHC (below/above 750 hp), because switchers built with these nonroad engines will still be much cleaner than those meeting the current switch locomotive Tier 2 standards of 0.24 and 8.1 g/bhp-hr PM and $NO_X$, respectively.

Commenters suggested that we allow the use of even earlier-tier nonroad engines under this option, as these would still be substantially cleaner than the engines being replaced. However, we feel this would defeat the purpose of the program, and would not be justifiable on a feasibility basis, as current-tier nonroad engines will be available for incorporation into new switchers in any year of the program. We are adopting other compliance and ABT provisions relevant to switch locomotives as discussed in section IV.B(1), (2), (3), and (9).

TABLE III.—3 RELEVANT LARGE NONROAD ENGINE TIER 4 STANDARDS

[g/bhp-hr]

| Engine power | Model year | PM | $NO_X$ |
|---|---|---|---|
| At or Below 750 hp | 2011 | 0.01 | 3.0 ($NO_X$+NMHC) [a] |
| | 2014 | 0.01 | 0.30 |
| 750–1200 hp | 2011 | 0.075 | 2.6 |
| | 2015 | 0.02 | 0.50 |
| Over 1200 hp | 2011 | 0.075 | 0.50 genset; 2.6 non-genset |
| | 2015 | 0.02 | 0.50 |

**Note:** (a) 0.30 $NO_X$ for 50% of sales in 2011–2013, or alternatively 1.5 g $NO_X$ for 100% of sales.

Finally, we are revising the definition of a switch locomotive to make clear that it is the total switch locomotive power rating (including power from any auxiliary engines that can operate when a main engine is operating), and not the individual engine power rating, that must be below 2300 hp to qualify, and to drop the unnecessary requirement that it be designed or used primarily for short distance operation. This clears up the ambiguity in the Part 92 definition over multi-engine switchers.

(c) Reduction of Locomotive Idling Emissions

We are adopting the proposed requirement that an Automatic Engine Stop/Start System (AESS) be used on all new Tier 3 and Tier 4 locomotives and installed on all existing locomotives that are subject to the new remanufactured engine standards, at the point of first remanufacture under the new standards. Locomotives equipped with an AESS device under this program must shut down the locomotive engine after no more than 30 continuous minutes of idling, and be able to stop and start the engine at least six times per day without causing engine damage or other serious problems. Continued idling is allowed under the following conditions: to prevent engine damage such as damage caused by coolant freezing, to maintain air pressure for brakes or starter systems, to recharge the locomotive battery, to perform necessary maintenance, or to otherwise comply with applicable government regulations.

Commenters also pointed out that it can sometimes be appropriate to allow a locomotive to idle to heat or cool the cab, and we are adopting regulations to allow it where necessary. Our implementation of this provision will rely on the strong incentive railroads have to limit idling to realize fuel cost savings after they have invested capital by installing an AESS system on a locomotive. We expect the railroads to appropriately develop policies instructing operators when it is acceptable to idle the locomotive to provide heating or cooling to the locomotive cab. We do not believe that those individuals responsible for developing railroad policies have any incentive to encourage or allow unnecessary idling. It is our intention to stay abreast of how well this combination of idle control systems and railroad policies does in fact accomplish the intended goal of reducing unnecessary idling. In general, we may consider it to be circumvention of this provision for an individual operator to use the AESS system in a manner other than that for which the system was designed and implemented per a railroad's policy directive.

A further reduction in idling emissions can be achieved through the use of onboard auxiliary power units (APUs), either as standalone systems or in conjunction with an AESS. In contrast to AESS, which works to reduce unnecessary idling, the APU goes further by also reducing the amount of time when locomotive engine idling is necessary, especially in cold weather climates. APUs are small (less than 50 hp) diesel engines that stop and start themselves as needed to provide: heat to both the engine coolant and engine oil, power to charge the batteries, and power to run accessories such as those required for cab comfort. This allows the much larger locomotive engine to be shut down while the locomotive remains in a state of readiness, thereby reducing fuel consumption without the risk of the engine being damaged in cold weather. APUs are powered by nonroad engines compliant with EPA or State of California nonroad engine standards, and emit at much lower levels than an idling locomotive under current standards.

Some commenters suggested we require both an AESS and an APU. However, the amount of idle reduction an APU can provide is dependent on a number of variables, such as the function of the locomotive (e.g., a switcher or a line-haul), where it operates (i.e., geographical area), and its operating characteristics (e.g., number of hours per day that it operates). As we stated in the NPRM, at this time we are not requiring that APUs be installed on every locomotive because it is not clear how much additional benefit they would provide outside of regions and times of the year where low temperatures or other factors that warrant the use of an APU exist and because they do involve some inherent design and operational complexities that could not be justified without such commensurate benefits. We are, however, adopting the proposed provision to encourage the additional use of APUs by providing in our test regulations, a process by which the manufacturer can appropriately account for the proven emission benefits of a more comprehensive idle reduction system.

In response to comment, we are adopting a more flexible approach that will allow the idle reduction requirement for remanufactured Tier 0+, 1+, and 2+ locomotives to be addressed in a separate certification apart from the certification of the full remanufacture system. Under this approach, remanufacturers will be allowed to obtain a certificate for a system that meets all of the requirements of part 1033 except for those of § 1033.115(g). However, since the idle controls would still need to be installed in a certified configuration before the remanufactured locomotive is returned to service, some other entity would need to obtain a certificate to cover the requirements of § 1033.115(g). (This separate certification approach is somewhat analogous to allowing a motor vehicle engine manufacturer to hold the certificate for exhaust emission standards and a motor vehicle manufacturer to hold the certificate for evaporative emission standards for a single motor vehicle.) Note that manufacturers of freshly manufactured locomotives and their customers will also have the choice as to whether the AESS is installed as part of the certified engine configuration at the factory or by an aftermarket company pursuant to a separate certification before the freshly manufactured locomotive is put into

service. These provisions will allow more companies to remain in the AESS manufacturing market and thus provide more choices to the railroads.

As described in Chapter 5 of the RIA, manufacturers of AESS, and demonstrations done in partnership between government and industry have shown that for most locomotives the fuel savings that result in the first few years after installation of an AESS system will offset the cost of adding the system to the locomotive. Given these short payback times for adding idle reduction technologies to a typical locomotive, normal market forces have led many railroads to retrofit a number of their locomotives with such controls. However, as is common with pollution, market prices generally do not account for the external social costs of the idling emissions, leading to an underinvestment in idling reduction systems. This rulemaking addresses those locomotives for which the railroads judge the fuel savings insufficient to justify the cost of the retrofit. We believe that applying AESS to these locomotives is appropriate when one also considers the significant emissions reductions that will result.

(2) Marine Diesel Engine Standards

(a) Newly-Built Marine Engines

We are adopting Tier 3 and Tier 4 emission standards for newly-built marine diesel engines with displacements under 30 liters per cylinder. Our analysis of the feasibility of these standards is summarized in section III.C and detailed in the RIA.

We are retaining our existing per-cylinder displacement approach to establishing cutpoints for standards, but are revising and refining it in several places to ensure that the appropriate standards apply to every group of engines in this very diverse sector and to provide for an orderly phase-in of the program to spread out the redesign workload burden:

We are moving the C1/C2 cutpoint from 5 liters/cylinder to 7 liters/cylinder, because the latter is a more accurate cutpoint between today's high- and medium-speed diesels.

We are revising the per-cylinder displacement cutpoints within Category 1 to better define the application of standards.

An additional differentiation is made between high power density engines typically used in planing vessels and standard power density engines, with a cutpoint between them set at 35 kW/liter (47 hp/liter).

We are removing the distinction for marine diesels under 37 kW (50 hp) in Category 1, originally made because these were regulated under our nonroad engine program.

Finally, we will further group engines by maximum engine power, especially in regards to setting appropriate long-term aftertreatment-based standards.

Note that we are retaining the differentiation between recreational and non-recreational marine engines within Category 1 because there are differences in their certification programs. Also, as discussed below, we are not finalizing Tier 4 standards for recreational marine engines at this time. Section IV.C(10) clarifies the definition of recreational marine diesel engine.

The new standards and implementation schedules are shown on Tables III–4 through 7. Briefly summarized, the marine diesel standards include stringent engine-based Tier 3 standards, phasing in over 2009–2014. They also include aftertreatment-based Tier 4 standards for commercial marine engines at or above 600 kW (800 hp), phasing in over 2014–2017. For engines of power levels not included in the Tier 3 and Tier 4 tables, the previous tier of standards (Tier 2 or Tier 3, respectively) continues to apply. These standards and implementation dates are the same as those proposed except: (1) Recreational marine engines are not subject to Tier 4 standards; (2) The Tier 4 $NO_X$ standard for 2000–3700 kW engines has been pulled forward by two years; (3) The proposed optional Tier 4 approach coordinated with locomotive Tier 4 has been modified; and (4) based on comments we received, the Tier 3 standards for high power density engines in the 3.5 to 7 liter/cylinder category (Table III–5) have been adjusted slightly to better align them with standards in other categories. The first three of these changes are discussed in more detail below. See section 3.2.1.1 of the Summary and Analysis of Comments document for discussion of the fourth.

TABLE III–4.—TIER 3 STANDARDS FOR MARINE DIESEL C1 COMMERCIAL STANDARD POWER DENSITY

| Maximum engine power | L/cylinder | PM g/bhp-hr (g/kW-hr) | $NO_X$+HC [d] g/bhp-hr (g/kW-hr) | Model year |
|---|---|---|---|---|
| <19 kW | <0.9 | 0.30 (0.40) | 5.6 (7.5) | 2009 |
| 19 to <75 kW | <0.9 [a] | 0.22 (0.30) | 5.6 (7.5) | 2009 |
| | | 0.22 (0.30) [b] | 3.5 (4.7) [b] | 2014 |
| 75 to <3700 kW | <0.9 | 0.10 (0.14) | 4.0 (5.4) | 2012 |
| | 0.9–<1.2 | 0.09 (0.12) | 4.0 (5.4) | 2013 |
| | 1.2–<2.5 | 0.08 (0.11) [c] | 4.2 (5.6) | 2014 |
| | 2.5–<3.5 | 0.08 (0.11) [c] | 4.2 (5.6) | 2013 |
| | 3.5–<7.0 | 0.08 (0.11) [c] | 4.3 (5.8) | 2012 |

**Notes:**
(a) <75 kW engines at or above 0.9 L/cylinder are subject to the corresponding 75–3700 kW standards.
(b) Option: 0.15 g/bhp-hr (0.20 g/kW-hr) PM/4.3 g/bhp-hr (5.8 g/kW-hr) $NO_X$+HC in 2014.
(c) This standard level drops to 0.07 g/bhp-hr (0.10 g/kW-hr) in 2018 for <600 kW engines.
(d) Tier 3 $NO_X$+HC standards do not apply to 2000–3700 kW engines.

TABLE III–5.—TIER 3 STANDARDS FOR MARINE DIESEL C1 RECREATIONAL AND COMMERCIAL HIGH POWER DENSITY

| Maximum engine power | L/cylinder | PM g/bhp-hr (g/kW-hr) | $NO_X$+HC g/bhp-hr (g/kW-hr) | Model year |
|---|---|---|---|---|
| <19 kW | <0.9 | 0.30 (0.40) | 5.6 (7.5) | 2009 |
| 19 to <75 kW | <0.9 [a] | 0.22 (0.30) | 5.6 (7.5) | 2009 |

TABLE III–5.—TIER 3 STANDARDS FOR MARINE DIESEL C1 RECREATIONAL AND COMMERCIAL HIGH POWER DENSITY—Continued

| Maximum engine power | L/cylinder | PM g/bhp-hr (g/kW-hr) | $NO_X$+HC g/bhp-hr (g/kW-hr) | Model year |
|---|---|---|---|---|
| | | 0.22 (0.30) [b] | 3.5 (4.7) [b] | 2014 |
| 75 to <3700 kW | <0.9 | 0.11 (0.15) | 4.3 (5.8) | 2012 |
| | 0.9–<1.2 | 0.10 (0.14) | 4.3 (5.8) | 2013 |
| | 1.2–<2.5 | 0.09 (0.12) | 4.3 (5.8) | 2014 |
| | 2.5–<3.5 | 0.09 (0.12) | 4.3 (5.8) | 2013 |
| | 3.5–<7.0 | 0.08 (0.11) | 4.3 (5.8) | 2012 |

**Notes:**
(a) <75 kW engines at or above 0.9 L/cylinder are subject to the corresponding 75–3700 kW standards.
(b) Option: 0.15 g/bhp-hr (0.20 g/kW-hr) PM/4.3 g/bhp-hr (5.8 g/kW-hr) $NO_X$+HC in 2014.

TABLE III–6.—TIER 3 STANDARDS FOR MARINE DIESEL C2 [a]

| Maximum engine power | L/cylinder | PM g/bhp-hr (g/kW-hr) | $NO_X$+HC [b] g/bhp-hr (g/kW-hr) | Model year |
|---|---|---|---|---|
| <3700 kW | 7–<15 | 0.10 (0.14) | 4.6 (6.2) | 2013 |
| | 15–<20 | 0.20 (0.27) [c] | 5.2 (7.0) | 2014 |
| | 20–<25 | 0.20 (0.27) | 7.3 (9.8) | 2014 |
| | 25–<30 | 0.20 (0.27) | 8.2 (11.0) | 2014 |

**Notes:**
(a) See note (c) of Table III–7 for optional Tier 3/Tier 4 standards.
(b) Tier 3 $NO_X$+HC standards do not apply to 2000–3700 kW engines.
(c) For engines below 3300 kW in this group, the PM Tier 3 standard is 0.25g/bhp-hr (0.34 g/kW-hr).

TABLE III–7.—TIER 4 STANDARDS FOR MARINE DIESEL C1 AND C2

| Maximum engine power | PM g/bhp-hr (g/kW-hr) | $NO_X$ g/bhp-hr (g/kW-hr) | HC g/bhp-hr (g/kW-hr) | Model year |
|---|---|---|---|---|
| At or above 3700 kW | 0.09 (0.12) [a] | 1.3 (1.8) | 0.14 (0.19) | [c] 2014 |
| | 0.04 (0.06) | 1.3 (1.8) | 0.14 (0.19) | [b, c] 2016 |
| 2000 to <3700 kW | 0.03 (0.04) | 1.3 (1.8) | 0.14 (0.19) | [c, d] 2014 |
| 1400 to <2000 kW | 0.03 (0.04) | 1.3 (1.8) | 0.14 (0.19) | [c] 2016 |
| 600 to <1400 kW | 0.03 (0.04) | 1.3 (1.8) | 0.14 (0.19) | [b] 2017 |

**Notes:**
(a) This standard is 0.19 g/bhp-hr (0.25 g/kW-hr) for engines with 15–30 liter/cylinder displacement.
(b) Optional compliance start dates can be used within these model years; see discussion below.
(c) Option for C2: Tier 3 PM/$NO_X$+HC at 0.10 / 5.8 g/bhp-hr (0.14/7.8 g/kW-hr) in 2012, and Tier 4 in 2015.
(d) The Tier 3 PM standards continue to apply for these engines in model years 2014 and 2015 only.

Engine manufacturers argued that modifying standard power density engines between 2000 and 3700 kW for Tier 3 $NO_X$, and again for Tier 4 $NO_X$ shortly after would be too difficult. They argued that these engines could meet Tier 4 $NO_X$ in 2014, two years earlier, if the Tier 3 $NO_X$+HC standard, proposed to apply in 2012, 2013, or 2014, depending on displacement, did not have to be met. We have analyzed this group of engines and agree that the suggested approach would be feasible and would have very little detrimental effect on $NO_X$ reductions in 2012–2013, while providing significant additional $NO_X$ reductions thereafter. We are therefore leaving the Tier 3/Tier 4 PM standards as proposed but revising the $NO_X$ implementation schedule as suggested by the industry.

The Tier 3 standards for engines with maximum engine power less than 75 kW (100 hp) are based on the nonroad diesel Tier 2 and Tier 3 standards, because these smaller marine engines are largely derived from (and often nearly identical to) the nonroad engine designs. The relatively straightforward carry-over nature of this approach also allows for an early implementation schedule, in model year 2009, providing substantial early benefits to the program. However, some of the nonroad engines less than 75 kW are also subject to aftertreatment-based Tier 4 nonroad standards, and our new program does not carry these over into the marine sector, due to vessel design and operational constraints discussed in section III.C. Because of the widespread use of both direct- and indirect-injection diesel engines in the 19 to 75 kW (25–100 hp) engine market today, we are making two options available to manufacturers for meeting Tier 3 standards on any engine in this range, as indicated in Table III–4. One option focuses on lower PM and the other on lower $NO_X$, though both require substantial reductions in both PM and $NO_X$ and will take effect in 2014.

With important exceptions, we are subjecting marine diesel engines at or above 75 kW (100 hp) to new emissions standards in two steps, Tier 3 and Tier 4. The Tier 3 standards are based on the engine-out emission reduction potential (apart from the addition of exhaust aftertreatment) of the nonroad Tier 4 diesel engines that will be introduced beginning in 2011. The Tier 3 standards for C1 engines will phase in over 2012–2014. We believe it is appropriate to coordinate the marine Tier 3 standards

with the nonroad Tier 4 (rather than Tier 3) engine developments in this way because marine diesel engines are largely derived from land-based nonroad counterparts, and because the advanced fuel and combustion systems that we expect the Tier 4 nonroad engines to employ will allow approximately a 50 percent reduction in PM when compared to the reduction potential of the nonroad Tier 3 engines. Inserting an additional marine engine tier based on nonroad Tier 3 engines would result in overly short lead time and stability periods and/or a delay in stringent standards.

We are applying high-efficiency aftertreatment-based Tier 4 standards to all commercial and auxiliary C1 and C2 engines over 600 kW (800 hp). These standards will phase in over 2014–2017. Marine diesels over 600 kW, though fewer in number, are the workhorses of the inland waterway and intercoastal marine industry, running at high load factors, for many hours a day, over decades of heavy use. As a result they also account for the bulk of marine diesel engine emissions.

After considering the substantial number of comments received on the feasibility of extending Tier 4 standards to engines below 600 kW, we are not at this time setting Tier 4 standards for these engines. We may do so at some point in the future if further technology developments show a path to address the issues we identify in RIA chapter 4 with the application of aftertreatment technologies to smaller vessels.

We are also not extending the Tier 4 program to recreational marine diesel engines. In our proposal we indicated that at least some recreational vessels, those with engines above 2000 kW (2760 hp), have the space and design layout conducive to aftertreatment-based controls and professional crews who oversee engine operation and maintenance. This suggested that aftertreatment-based standards would be feasible for these larger recreational engines. While commenters on the proposal did not disagree with these views, they pointed out these very large recreational vessels often travel outside the United States, and, for tax reasons, flag outside the U.S. as well. Commenters argued that applying Tier 4 standards to large recreational marine diesel engines would further discourage U.S.-flagging because vessels with those engines would be limited to using only those foreign ports that make ULSD and reductant for $NO_X$ aftertreatment available at recreational docking facilities, limiting their use and hurting the vessel's resale value. The aftertreatment devices used to meet Tier 4 are expected to be sensitive to sulfur in the exhaust and so ULSD must be used in these engines.

In general, we expect ULSD to become widely available worldwide, which would help reduce these concerns. However, there are areas such as Latin America and parts of the Caribbean that currently do not plan to require use of this fuel. Even in countries where ULSD is available for highway vehicles but not mandated for other mobile sources, recreational marinas may choose to not make ULSD and reductant available if demand is limited to a small number of vessels, especially if the storage and dispensing costs are high. To the extent the fuel requirements for Tier 4 engines encourage vessel owners to flag outside the United States, the results would be increased emissions since the international standards for these engines are equivalent to EPA's Tier 1 standards.

After considering the above, we conclude that it is preferable at this time to hold recreational engines marine diesel engines to the Tier 3 standards. We plan to revisit this decision when we consider the broader questions of the application of our national marine diesel engine standards to engines on foreign vessels that enter U.S. ports in the context of our Category 3 marine diesel engine rulemaking.

There is a group of commercial vessels that share some of the characteristics of recreational vessels in that they also operate outside the United States. However, the concerns that lead us to exclude recreational vessels from the Tier 4 standards (flagging or registering in a foreign country and thus avoiding all U.S. emission standards; resale value) do not generally apply to commercial vessels. Unlike recreational vessels, the majority of commercial vessels with C1 or C2 main propulsion engines that operate in the United States do not have the option of flagging offshore. This is because they are engaged full-time in harbor activities in U.S. ports or in transporting freight or otherwise operating only between two U.S. ports, and cabotage laws require such vessels be flagged in the United States. In addition, most of these vessels operate at or between U.S. ports, so ULSD availability is not expected to be a problem. Finally, the resale of U.S. commercial vessels on the world market is already affected by other U.S.-specific vessel design and operation requirements, and these standards are not expected to affect that situation.

Nevertheless, some commercial vessels are used in ways that could make the use of ULSD and even urea an intractable problem. These are commercial vessels that are routinely operated outside of the United States for extended periods of time, including tug/barge cargo vessels operated on circle routes between the United States and Latin America that routinely refuel in places where ULSD is not available, and lift boats, utility boats, supply boats and crewboats that are used in the offshore drilling industry and are contracted to work in waters off Latin America or Western Africa for up to several years at a time without returning to the United States. Owners of these vessels informed us that requiring them to use Tier 4 engines will adversely impact their business in significant ways since they would have to arrange for ULSD and urea outside the United States, potentially at great additional cost, and that this is turn would affect their ability to compete with foreign transportation providers who do not face the same costs. These owners flag their vessels in the U.S. to maximize the flexibility of their business operations, but they informed us that they would consider segregating their fleets and flagging some elsewhere if they are required to use Tier 4 engines. Similar to the recreational marine case, the engines on reflagged vessels would not be subject to any U.S. emission controls or compliance requirements. In addition, there could be adverse impacts on associated industries that use these services, if there are fewer vessels available for use in the Untied States. For all of these reasons, these vessel owner/operators encouraged EPA to consider a provision that would not require these vessels to use Tier 4 engines.

We do not expect ULSD availability at foreign commercial ports to be a widespread problem. Many industrial nations already have or are expected to shift to ULSD in the near future, including Japan (by 2008), Singapore (in 2007), Mexico (in 2007 for ''Northern border areas''), the EU member states (by 2009), and Australia (by 2009). Other countries may also make ULSD available by 2016, as refineries in other countries modify their production to supply ULSD to the U.S. markets even if they do not require it domestically. However, ULSD may be difficult to obtain in some areas of the world, notably Latin America and Africa. Therefore, it is reasonable to include a limited compliance exemption from the Tier 4 standards for the narrow set of vessels that are described above.

Because the decision of whether a Tier 4 engine is required must be made at the design phase of a vessel, and not after it goes into service, it is preferable to define such an exemption based on vessel design characteristics instead of

the owner's intentions for how the vessel may ultimately be used. After consulting with industry representatives, we concluded that the most obvious design feature that indicates the vessel is intended for extensive international use is compliance with international safety standards. We have concluded that the costs of obtaining and maintaining certification for the International Convention for the Safety of Life at Sea (SOLAS) are high enough to discourage owners of vessels that will not be used outside the United States to obtain certification to evade the Tier 4 standards. These costs can range from about $250,000 to $1 million in capital costs and from about $50,000 to $100,000 in annual operating costs. The Port State Information Exchange database maintained by the U.S. Coast Guard indicates that about 30 percent of offshore supply vessels built annually are SOLAS certified and that 3 percent or fewer passenger vessels and tugs built annually are SOLAS certified (based on new vessel construction, 1995–2006).[127] Therefore, to be eligible for the exemption, the owner will be required to obtain and maintain relevant international safety certification pursuant to the requirements of the United States Coast Guard and SOLAS for the vessel on which an exempted engine is installed.

Vessel owners will be required to petition EPA for an exemption for a particular vessel in order for an engine manufacturer to sell them an exempted engine; granting of the exemption will not be automatic. In evaluating a request for a Tier 4 exemption, we will consider the owner's projections of how and where the vessel will be used and the availability of ULSD in those areas, as well as the mix of SOLAS and non-SOLAS vessels in the owner's current fleet and the extent to which those vessels are being or have been operated outside the United States. In general, it is our expectation that fleets should first use existing pre-Tier 4 vessels for operations where ULSD may not be available. Therefore, we would not expect to grant an exemption for a vessel that will be part of a fleet that does not already have a significant percentage of Tier 4 vessels, since a fleet with a smaller percentage of Tier 4 vessels would likely have more pre-Tier 4 vessels that could be employed in the overseas application instead. For example, if 30 percent of an owner's current fleet has SOLAS certification, we would expect that up to 70 percent of the vessels in that fleet could be Tier 4 compliant without changes in the operation of the fleet. We may also ask the petitioner to demonstrate that other vessels in the petitioner's fleet remain in service outside the United States and have not been placed into service domestically. EPA does not expect to approve applications for the Tier 4 exemption described in this paragraph prior to 2021; we expect that the existing fleet of Tier 3 vessels can be used for overseas operations during that time. If an owner petitions EPA for an exemption prior to that year, we may request additional information on the owner's expected operation plans for that vessel and a more complete explanation as to why another vessel in the existing fleet could not be redirected to the offshore application with the Tier 4 vessel under construction taking that vessel's place. Finally, a failure to maintain SOLAS certification for the vessel on which an exempted engine is installed would result in a finding of noncompliance and the owner would be liable for applicable fines and other penalties.

To address the situation in which an owner of a vessel with Tier 4 engines wants to use that vessel in a country that does not have ULSD available, we are also including a provision that will allow the owner to petition EPA to temporarily remove or disable the Tier 4 controls on vessels that are operated solely outside the United States for a given period of time. The petitioner will need to specify where the vessel will operate, how long the vessel will operate there, and why the owner will be unable to provide ULSD for the vessel. The petitioner will also be required to describe what actions will be taken to disable or disconnect the Tier 4 controls. Permission to disable or remove the Tier 4 controls will be allowed only for the period specified by the owner and agreed to by EPA; however, the owner may re-petition EPA at the end of that period for an extension. As part of the approval of such a petition, the petitioner will be required to agree to re-install or reconnect the Tier 4 emission control devices prior to re-entry into the United States, whether this occurs only at the end of the specified period or earlier.

These provisions for migratory vessels are intended to facilitate the use of vessels certified to the U.S. federal marine diesel emission standards while they are operated for extended periods in areas that may not have ULSD available. It should be noted that vessels that receive either limited exemptions or that petition EPA to remove or disable Tier 4 controls will still be subject to the MARPOL emission limits when they are operated outside the United States. We may review these migratory vessel provisions in the context of our upcoming Category 3 marine diesel engine rulemaking. We may also revisit this program in the future if the number of exemption requests appears to be unreasonably high or if we find that significant numbers of vessels that have obtained exemptions from Tier 4 are, in fact, in use domestically.

Note that the implementation schedule in the above marine standards tables is expressed in terms of model years, consistent with past practice and the format of our regulations. However, in two cases we believe it is appropriate to provide a manufacturer the option to delay compliance somewhat, as long as the standards are implemented within the indicated model year. Specifically, we are allowing a manufacturer to delay Tier 4 compliance within the 2017 model year for 600–1000 kW (800–1300 hp) engines by up to 9 months (but no later than October 1, 2017) and, for Tier 4 PM, within the 2016 model year for engines at or above 3700 kW (4900 hp) by up to 12 months (but no later than December 31, 2016). We consider this option to delay implementation appropriate in order to give some flexibility in spreading the implementation workload and ensure a smooth transition to the long-term Tier 4 program.

The Tier 4 standards for locomotives and for C2 diesel marine engines of comparable size are at the same numerical levels but differ somewhat in implementation schedule: Locomotive Tier 4 standards start in 2015, while diesel marine Tier 4 standards start in 2016 for engines in the 1400–2000 kW (1900–2700 hp) range, and in 2014 for engines over 2000 kW (with final PM standards starting in 2016 for these engines). We consider these locomotive and marine diesel Tier 4 implementation schedules to be close enough to warrant our adopting a marine engine option based on the Tier 4 locomotive schedule, aimed at facilitating continuance of today's frequent practice of developing a common engine platform for both markets. Commenters on the proposal supported this marine engine option, but expressed concerns about competitiveness issues and argued that we should remove the proposed restriction to engines of 7–15 liter/cylinder displacement and under 3700 kW maximum engine power.

We are adopting this locomotive-based marine engine option, but with

[127] Memorandum to Docket EPA–HQ–OAR–2003–0190, Marine Vessels—SOLAS Certification, from Jean MarieRevelt, dated January 11, 2007.

some changes from the proposed approach to address potential competitiveness issues, as well as our own concern that this option be used only for the intended purpose of avoiding unnecessary dual design efforts. First, we are retaining some limits on its scope, specifically to engines above both a 7 liters per cylinder limit (Category 2 in the marine sector) and a 1400 kW (1900 hp) maximum engine power. Second, if the option is used, its standards must be met for all of a manufacturer's marine engines at or above 1400 kW (1900 hp) in the same displacement category (that is, 7–15, 15–20, 20–25, or 25–30 liters per cylinder) in all of the model years 2012 through 2016. This will help ensure the option is not gamed by artificially subdividing engine platforms. Because the switch locomotive program we are establishing already includes a similar streamlined option allowing the use of land-based nonroad engines, we are not extending this option to switchers.

We are adopting another provision to help ensure that this locomotive-based marine engine option is environmentally beneficial and is not used to gain a competitive advantage. We are requiring that marine engines under this option meet Tier 3 standards in 2012, the year Tier 3 starts for locomotives, with standards numerically corresponding to locomotive Tier 3 standards levels: 0.14 g/kW-hr (0.10 g/bhp-hr) PM and 7.8 g/kW-hr $NO_X$+HC (5.8 g/bhp-hr: that is, 5.5 + 0.30 g/bhp-hr combined $NO_X$ and HC). Otherwise a manufacturer could take advantage of the later-starting marine Tier 3 schedule to generate credits or allow increased emissions from these engines until 2015 when the option requires Tier 4 compliance. This approach also deals fairly with the problem identified in the proposal regarding redesigning locomotive-based engine platforms to meet the numerically lower marine Tier 3 $NO_X$ level.

Finally, we considered but are not adopting a provision that would set a total vessel power limit for the Tier 4 standards. The comments we received on this issue lead us to conclude that multiple-engine configurations are used in vessel designs for specific purposes and are not likely to be employed to evade the Tier 4 standards. We may consider this type of restriction in a future action, however, if multiple-engine vessels are built in applications that have typically used a different number of engines in the past.

(b) Remanufactured Marine Engines

In addition to the standards for newly-built engines, we are adopting for the first time emission standards for marine diesel engines on existing vessels. Many of these existing engines will remain in the fleet for 40 years or more, making them what would otherwise be a substantial source of air pollution. The marine remanufacture program will provide early PM reductions by reducing emissions from this legacy fleet sooner than would be the case from the retirement of old vessels in favor of new vessels with cleaner engines. Additional early $NO_X$ reductions are expected to be achieved from the use of locomotive remanufacture systems recertified under this program for Category 2 engines.

The program we are finalizing is modified from what we described in the NPRM. In the NPRM we described a two-part program that would have applied to all commercial marine diesel engines above 600 kW when they are remanufactured. In the first part, which we considered beginning as early as 2008, vessel owners/operators and engine rebuilders who remanufacture engines would be required to use a certified remanufacture system when an engine is remanufactured (defined as replacement of all cylinder liners, either in one event or over a five-year period) if such a certified system is available. In the second part, which we considered beginning in 2013, a marine diesel engine identified by EPA as a high-sales volume engine model would have been required to meet specified emission requirements when it is remanufactured. Specifically, the remanufacturers or owners of such engines would have been required to use systems certified to meet the standard; if no certified system is available, they would have needed to either retrofit the engines with emission reduction technology that demonstrates at least a 25 percent reduction or replace the engines with new ones. For engines not identified as high-sales volume engines, Part 1 would have continued to apply.

Several commenters requested that EPA not finalize this program at this time but instead consider it in a separate rulemaking. They noted that this would allow additional time to consider the program and its requirements. Postponing the program, however, would also result in the loss of important emission reductions early in the program. Delay is also not necessary because the program we are adopting consists only of the first part of the program described in our proposal, requiring the owner of a marine diesel engine to use a certified marine remanufacture system when the engine is remanufactured if such a system is available. We are not adopting a requirement for the mandatory availability of remanufacture systems. (Under the option discussed in the proposal, in certain circumstances, if a remanufacture system was not made available the owner would have been required to retrofit an emission control technology, repower the vessel (replace its engines) or scrap the vessel.)

The marine remanufacture program we are adopting applies to all commercial marine diesel engines with maximum engine power greater than 600 kW and manufactured in 1973 or later, through Tier 2. The beginning date of 1973 is based on our existing locomotive program; many of the techniques used to achieve those standards are expected to be applicable to marine diesel engines over 600 kW.

As described in more detail below, the program draws on aspects of our locomotive remanufacture and diesel retrofit programs with regard to the basic requirements that apply and how remanufacture systems are certified. The remainder of this section describes the main features of the program. The technological feasibility of this program is described in section III.C, and the certification requirements are set out in section IV. Small manufacturer, engine dresser, vessel builder, and operator flexibilities are set out in section IV.A(13)(b).

Similar to the locomotive program, the marine program we are finalizing applies when a marine diesel engine is remanufactured. Covered engines are those that are remanufactured to as-new condition. Based on discussions with engine manufacturers, we have determined that replacing all cylinder liners is a simple and clear indicator that the servicing being done is extensive enough for the engine to be considered functionally equivalent to a freshly manufactured engine, both mechanically and in terms of how it is used. Therefore, we are defining remanufacture as the removal and replacement of all cylinder liners, either during a single maintenance event or over a five-year period. It should be noted that marine diesel engines are not considered to be remanufactured if the rebuilding process falls short of this definition (i.e., the cylinder liners are removed and replaced over more than a five-year period). As with locomotives, remanufactured marine diesel engines are new until they are sold or placed into service.

For the purpose of this program, ''replace'' includes removing, inspecting, and requalifying a liner. This addresses the situation in which an engine experiences a cylinder failure prior to a scheduled rebuild: The owner might replace the failed cylinder right away and replace the others at rebuild; then, at the time of rebuild, the installer would likely inspect the cylinder that was a few months old to make sure it qualified for continued use according to the certificate holder's instructions. We do not think that owners will fail to requalify cylinders to avoid the remanufacture requirements because requalification is done both to ensure the continued reliability and durability of the engine and as part of surveys necessary to retain vessel certification for safety and other purposes. The five-year provision was first adopted in the locomotive program to help ensure that the standards are not avoided through phased remanufacturing (i.e., not replacing the power assemblies all at once). It is reasonable to use this approach in the marine sector as most commercial engines are rebuilt all at once, although some owners may choose a rolling rebuild approach in which a certain number of cylinders are rebuilt every year. We may revisit the five-year limit after a few years of the program to evaluate whether this is the appropriate period and whether owners are adjusting their rebuild practices, particularly with respect to rolling rebuilds, to circumvent the regulations (see discussion of rolling rebuilds, below).

When an engine is remanufactured, it must be certified as meeting the emission standards for remanufactured engines (by using a certified remanufacture system) unless there is no certified remanufacturing system available for that engine. In other words, the owner/operator or installer of a covered engine would be required to use a certified marine remanufacture system when remanufacturing that engine if one is available. If there is no certified system available at that time, there is no requirement. Availability means not only that EPA has certified a system, but also that it can be obtained and installed in a timely manner consistent with normal business practices. For example, a system would generally not be considered to be available if it required that the engine be removed from the vessel and shipped to a factory to be remanufactured unless that is the normal rebuild process for that engine. Similarly, a system would not be considered to be available if the component parts are not available for purchase in the period normally associated with a scheduled rebuild. If a certified system is not available there is no requirement to comply with this program until the next remanufacture, at which time the remanufacturer would need to check again to see if a system is available. Nonavailability due to inability to obtain parts may be demonstrated by a written record that shows a good faith effort to obtain parts.

Several states and localities have voluntary retrofit programs to reduce emissions from marine diesel engines. These programs encourage vessel owners to apply emission reduction strategies in return for a financial or operational incentive. Retrofit systems range from engine adjustments to installing different cylinders, fuel injectors, turbochargers, or other engine components. To receive the incentive, the owner must demonstrate the reduction, often through emission measurements. We received state agency comments expressing concern about the potential inconsistency between state and local retrofit programs and a potential marine remanufacture program. Specifically, a situation could be created in which a vessel owner who has already applied a retrofit device pursuant to a state or local retrofit program would be required to remove the voluntary retrofit device and install a certified marine remanufacture system. We do not want to negatively impact the positive benefits that arise from state and local retrofit programs, especially in those cases in which the retrofit achieves a greater reduction (e.g., retrofit of a SCR system) than a certified marine remanufacture system. We also do not want to discourage these programs especially in early years where states and local programs may achieve reductions before certified remanufacture systems become available.

Therefore, we are adopting a provision that will allow an owner/operator of an engine that is fit with a retrofit device prior to 2017 pursuant to a state or local retrofit program to request a qualified exemption from the marine remanufacture requirements for that engine. This qualified exemption will be available only to engines equipped with retrofit device under a state or local program before 2017. The owner/operator must request the exemption prior to a remanufacturing event that would otherwise trigger the requirement to use a certified remanufacture system. The request must include documentation that the vessel has been retrofit pursuant to a state or local retrofit program and a signed statement declaring that to be true. Except for the initial request for a specific vessel and a specific retrofit, a request would be considered to be approved unless we notify the requestor otherwise within 30 days of the date that we receive the request. Note that the exemption does not apply where the sponsoring government specifies that inclusion in the retrofit program is not intended to provide an exemption from the requirements of this subpart. EPA's granting of the exemption is conditioned upon the owner/operator's continued use and maintenance of the retrofit kit that provides the basis for the exemption.

Beginning in 2017, this exemption will no longer be available for new retrofits. Engines included in state or local retrofit programs will be required to use a certified remanufacture system if one is available when the engine is remanufactured. In this case either the certified remanufacture system would be part of the retrofit or the vessel owner would use a certified remanufacture system the next time at the next remanufacture event.

At this time, we are adopting standards for remanufacture systems only for marine diesel engines over 600 kW. This 600 kW threshold is reasonable because of the long hours of use, often at high load, of engines above 600 kW, and their long services lives. These engines are also more likely to undergo regular full overhauls, returning them to as-new condition. Commercial marine diesel engines larger than 600 kW typically undergo periodic full, like-new rebuilds. These large engines are often installed on tugs, towboats, ferries, offshore supply vessels, lakers, and coasters, which require reliable power at all times. These vessels are often used for ten or more hours a day, every day of the year. As a result, these engines are typically subject to regular maintenance to ensure their dependability. In addition, many manufacturers provide guidance for a full rebuild to as-new condition. This might include replacing piston rings, heads, bearings, and gear train/camshaft as well as piston liners.[128] Rebuilding to as-new condition helps ensure smooth operation over the full maintenance interval. Owners of these vessels are also motivated to maintain their engines because it is very complicated and expensive to repower their vessels; replacing an engine may require major hull modifications. Because these vessels operate for decades, often 40 or

[128] See Note from Amy Kopin, Mechanical Engineer, to Jean Marie Revelt, EPS, Re: Marine Remanufacture Program. A copy of this Note is available in Docket OAR–2003–0190.

more years, their engines may be remanufactured to as-new condition anywhere from three to six or even more times before the vessel is scrapped.

We are not setting standards for marine remanufacture systems for engines below 600 kW because we currently do not have sufficient data to determine the extent that rebuilding of engines below 600kW qualifies as remanufacturing to an as new condition. Smaller commercial engines under 600 kW or recreational engines typically have shorter useful lives than the larger engines and do not see as much wear on an annual basis. This means it takes longer to acquire the hours between maintenance intervals. Engines on some smaller commercial or recreational marine vessels may not be rebuilt at all but, instead, are replaced or the vessel is scrapped. There may also be other technological and cost issues with applying remanufacture requirements to smaller commercial or recreational engines.

For these reasons, we are finalizing only standards for remanufactured commercial marine diesel engines above 600 kW. We may revisit this approach after implementing the program to evaluate whether other remanufactured marine diesel engines should be included in the program as well.

A certified marine remanufacture system must achieve a 25 percent reduction in PM emissions compared to the engine's measured baseline emissions level (the emission level of the engine as rebuilt according to the manufacturer's specification but before the installation of the remanufacture system) without increasing $NO_X$ emissions (within 5 percent). We are not finalizing a 0.22 g/kW-hr PM cap, as proposed. The percent reduction is being adopted because the large range of engine platforms on existing marine diesel engines makes the selection of an effective numeric emission limit impractical. A more stringent emission limit may prevent the development of remanufacture systems for many engines, while a less stringent limit could allow manufacturers to certify remanufacture systems for engines that already meet the limit without any additional emission benefits. A percentage reduction has the advantage of allowing more engines to participate in the program while ensuring valid emission reductions.

We are not adopting the multi-step approach discussed in the proposal. This approach, based on the Urban Bus program, would have entailed setting standards based on reductions of 60 percent, 40 percent, and 20 percent, and requiring that a rebuild use the certified kit meeting the most stringent of these three standards if available. Manufacturers expressed concern that such a requirement would discourage the development of remanufacture systems since they could rapidly become obsolete. Owners were concerned that they would be subject to a moving requirement that would complicate their engine maintenance and overhaul schedules and could result in identical engine models being required to use different remanufacture systems. They also were concerned that such an approach would mean they would have to use a different system every time they remanufacture, and the impacts on engines that are remanufactured over several maintenance events. For these reasons, instead of adopting the multi-step approach, we are adopting a single emission reduction requirement. If several certified systems are available, we will allow any of them to be used. However, states may develop incentive programs to encourage the use of the certified remanufacture system with the greatest reduction. Also, we may revisit the emission level in the future to determine if it should be modified to reflect advances in applying new PM reduction technologies to existing marine diesel engines.

We expect that this PM reduction will be met by using incrementally-improved components that are replaced when an engine is remanufactured, based on reduction technologies manufacturers are already using or will be using to achieve the Tier 3 PM standards. For example, a remanufacture system could reduce PM emissions by using different fuel injectors or different piston rings to reduce oil consumption. Remanufacturing systems may not adversely affect engine reliability, durability, or power.

Some engine manufacturers expressed concern about the potential for unintended adverse effects on engine performance, reliability, or durability that could occur if another entity develops a remanufacture system for their engines. They were particularly concerned about being held responsible for an emission failure if the remanufacture system does not perform as intended, or for an engine failure if the system causes other engine components to fail. To address this concern, the program we are finalizing requires any person who wishes to certify a remanufacture system for an engine not produced by that person to notify the original engine manufacturer and request their comments on the remanufacture system. Any comments received by the certifier are required to be included in the certification application, as well as a description of how those comments were addressed.

As we described at proposal, this final rule includes a cost cap on marine diesel remanufacture systems of $45,000 per ton of PM reduced, based on the incremental cost of the remanufacture system (the cost in excess of what a rebuild would otherwise cost). This cost cap is analogous to the reasonable cost limit in the current locomotive remanufacturing program and is intended to ensure that marine remanufacture systems do not impose excessively burdensome cost requirements on vessel owners that are not justified by the benefits of the reductions. The $45,000 per ton of PM reduced is similar to the cost of a number of mobile source retrofit programs. This cap includes all costs to the vessel owner associated with the remanufacture system beyond those associated with an engine remanufactured without a certified system, such as labor for any special installation procedures and any modifications to the vessel or its operation (e.g., fuel consumption impacts).

It may not be possible for the certifier to predict the characteristics of all vessels that can use the remanufacture system and therefore provide a comprehensive estimate of the total incremental costs of installing the remanufacture system. Therefore, in addition to an estimate of the vessel-related installation costs that would apply to most vessels, the certifier must also provide an estimate of the amount of residual incremental costs that would be available for installation of the remanufacture system on a particular vessel without triggering the $45,000 per ton PM threshold (i.e., the maximum amount installation may cost for a particular vessel after the cost of the remanufacture system is deducted from the $45,000 maximum cost). This will guide vessel owners in determining if the cost of a certified remanufacture system will exceed the $45,000 threshold for a particular vessel.

We are including a provision that will allow a vessel owner to request an exemption from EPA if the vessel owner can demonstrate to EPA's satisfaction that actual installation cost for his or her vessel will exceed the $45,000 per ton PM threshold. This may be necessary, for example, if a vessel with external keel cooling cannot be modified to achieve required cooling levels required by the remanufacture system without extensive modifications to the vessel hull. We are also including a small business exemption as well as a

financial hardship provision (see Section IV.A.13(b)(vi and vii)) that would allow postponing the requirements for owners who can show financial hardship.

Marine remanufacture systems can be certified as soon as this rule goes into effect. A remanufacture system will be considered to be available 120 days after we issue a certificate of conformity for it or 90 days after we include it on our list of certified remanufacture systems, whichever is later. Prior to the end of that period, a kit will not be considered to be ''available.'' This period allows time for owners to arrange for remanufacturing with a certified system once one that applies to the relevant engine has been certified. Once a marine remanufacture system is certified, as evidenced by an EPA-issued certificate of conformity, it will be considered to be available until it is withdrawn or the certificate holder fails to obtain a certificate of conformity for a subsequent year. We will maintain a list of available remanufacture systems and provide access to this list by posting it on our website. Owners should consult the list prior to any particular remanufacturing event to determine whether a certified system is available and therefore whether they are affected by the program. Uncertified systems purchased before that date can be used as long as they are consistent with the normal parts inventory practices of the owner or rebuild facility. Stockpiling of uncertified remanufacture systems to evade the requirements of the program is not allowed.

For engines on a rolling rebuild schedule (i.e., cylinder liners are not replaced all at once but are replaced in sets on a schedule of 5 or fewer years, for example 5 sets of 4 liners for a 20-cylinder engine on a 5-year schedule), the requirement is triggered at the time the remanufacture system becomes available, with the engine required to be in a certified configuration when the last set of cylinder liners is replaced. The remanufacturing requirements do not apply for cylinder-liner replacements that occurred before the remanufacture system becomes available. Any remanufacturing that occurs after the system is available needs to use the certified system, including remanufacturing that occurs on a rolling schedule over less than five years following the availability of the remanufacturing system. If the components of a certified remanufacture system are not compatible with the engine's current configuration, the program allows the owner to postpone the installation of the remanufacture system until the replacement of the last set of cylinder-liners, which would occur no later than five years after the availability of the system. At that time, all engine components must be replaced according to the certified remanufacture system requirements.

Initially, we expect marine remanufacture systems to be certified for C2 engines that are derived from certified locomotive remanufacture systems. Some of these certified locomotive systems are already used on C2 marine diesel engines, or can be used with modification. The new Tier 0+, Tier 1+ and Tier 2+ certified locomotive remanufacture systems are likely to be capable of being used on marine diesel engines without much additional development when those certified locomotive systems become available, for additional reductions. To encourage this practice, we are providing a streamlined certification process for locomotive systems certified to the new Tier 0+, Tier 1+, or Tier 2+ standards for use on C2 engines. The streamlined certification will also be allowed for existing Tier 0 locomotive remanufacture systems (certified under part 92), but those systems can be used only on pre-Tier 1 (uncertified) C2 marine engines, and the use of these existing Tier 0 systems will not be permitted after systems certified to the new Tier 0+ (or Tier 1+ if applicable) locomotive standards are made available. The streamlined certification process will require only an engineering analysis demonstrating that the system would achieve emission reductions from marine engines similar to those from locomotives. The streamlined certification process will allow modifications to the previously certified locomotive system as necessary to install the system on a C2 marine engine. If the manufacturer of a locomotive remanufacture system chooses to modify that system in a substantive way, for example to remove $NO_X$ emission controls (because the marine remanufacture program only requires PM reductions), then the system will have to be recertified as a marine remanufacture system based on measured values and subject to all of the other certification requirements of the marine remanufacture program (see section IV). We are not providing a similar streamlined certification process for C1 marine systems because there are currently no certified remanufacture systems for C1-equivalent engines through our other mobile source programs.

The program described above is engine-based in that it assumes that remanufacture systems will consist of changes to engine components or operational settings. At least one user asked EPA to consider also allowing remanufacture systems consisting of the use of specified fuels or fuel additives. The program we are adopting will allow this type of remanufacture system, subject to the following constraints.

First, the use of a remanufacture system based on a fuel or fuel additive will not be mandatory if such a system is certified. Instead, the use of a fuel or fuel additive system will be allowed as an alternative compliance mechanism in place of an engine-based remanufacture system. In other words, if an engine-based remanufacture system is certified, owners of the affected engine models can either use that engine-based system or use a fuel or fuel additive system if one has also been certified; if there is no certified engine-based system, then there is no requirement to use the fuel or fuel additive remanufacture system. This requirement is necessary because, in contrast to an engine-based system, a fuel or fuel additive-based system requires positive action on the part of the owner to achieve the emission reductions. In the case of an engine-based system, the owner installs the replacement parts at the time of rebuild; installation of the parts will achieve the required reductions and there is little impact on the owner or the vessel's operations. In the case of a fuel or fuel additive system, however, the owner will be required to use the specified fuel or fuel additive at all times; if the owner does not take the required action, the ''system'' will not be in use. Because a fuel or fuel additive-based system will require the owner to do something on a continuous basis and require additional recording and recordkeeping, the success of the system requires a positive commitment on behalf of the owner/operator.

Second, the certifier of a remanufacture system based on a fuel or fuel additive will be required to show that use of the fuel or fuel additive meets the 25 percent PM reduction based on measured values, without increasing $NO_X$ emissions, for all engines to which the system will apply. This will require testing an engine with and without the use of the specified fuel or fuel additive. Different engines may be combined into one engine family for the purpose of certification, based on EPA approval.

Third, any fuel or fuel additive for which certification is sought under the marine remanufacture program must first be registered under 40 CFR Part 79, Registration of Fuels and Fuel Additives. This is to ensure that the fuel or fuel additive does not contain

substances that are otherwise controlled by EPA.

Fourth, as part of the certification, the certifier will be required to provide a sampling procedure that can be used by EPA or other enforcement authorities to verify owner compliance onboard and for enforcement purposes. That procedure should explain how to detect if the appropriate level of fuel additive or if the appropriate fuel type is actually being used onboard on the basis of a fuel sample taken from a fuel tank on the vessel. In addition to being provided to EPA as part of the certification process, the certifier will be required to provide a copy of this procedure to the purchaser as part of the remanufacture system package and will be required to maintain a copy of the procedure on the internet to facilitate in-field compliance verification.

Fifth, the remanufacture system will require a notification to be placed at the appropriate fill location (either on the fuel tank inlet in the case of fuels or pre-blended fuel additives, or as specified on the engine in the case of fuel additives not blended in the fuel) that indicates the engine is outfitted with a fuel or fuel additive remanufacture system and that compliant fuel or additives must be used at all times.

Finally, when an owner agrees to use a fuel or fuel additive-based remanufacture system in lieu of an engine-based system, that owner must also agree to any recordkeeping requirements specified in the certification of that system. These may include keeping a record of the purchase of the specified fuel or fuel additive and, in the case of additives, the amounts and dates of the additive use. These requirements must be set out by the certifier as part of the kit, and the owner will be deemed to have agreed to them by affixing a label to the engine or appropriate fuel or fuel additive inlet indicating that it is certified with a fuel or fuel-additive remanufacture system.

If an owner or operator chooses a certified remanufacture system based on a particular fuel or fuel additive to meet these remanufacture requirements, the failure to use the fuel or fuel additive would be a violation of 1068.101(b)(1).

Allowing the use of fuel or fuel additive-based remanufacture systems is not intended to be a mechanism to require fuel switching for marine diesel engines, either to 15 ppm fuel earlier than required or to distillate from residual fuel for auxiliary engines on vessels with Category 3 marine diesel engines or for those smaller vessels than may currently use residual fuel in their C2 main propulsion engines. It is also not intended to prevent the use of off-spec fuel in marine diesel engines. If there is no certified engine-based remanufacture system available for an engine, a fuel or fuel additive-based kit will not be required to be used even if one is certified.

EPA is committed to the development and successful operation of a marine remanufacture program. We intend to assess the effectiveness of this program as early as 2012 to ascertain the extent to which engine manufacturers are providing certified remanufacture systems. If remanufacture systems are not available or are not in the process of being developed and certified at that time for a significant number of engines, we may consider changes to the program. As part of that assessment, we may evaluate whether to include Part 2 of the program described in our proposal. Part 2 would require the owner/operator or installers of a marine diesel engine identified by EPA as a high-sales volume engine to either use a certified remanufacture system when the engine is remanufactured or, if no system is available, retrofit an emission reduction technology for the engine that meets the 25 percent PM reduction, or repower (replace the engine with a freshly manufactured engine). Part 2 was intended to create a market for marine remanufacture systems, to help ensure their development over the initial five years of the program. However, vessel owners were very concerned that a mandatory repower program would have the opposite impact, and would discourage certification of remanufacture systems in favor of mandatory repowers due to the higher value of a replacement engine compared to a remanufacture system. In evaluating the effectiveness of the remanufacture program in the future, EPA may revisit the need for Part 2, or something similar, to ensure emission reductions from the large marine legacy fleet are occurring in a timely and effective manner. We may also evaluate other aspects of the program, including the criteria that trigger a remanufacturing event (including the 5-year period for incremental remanufactures), and whether we should set remanufacture standards for engines less than 600 kW.

(3) Carbon Monoxide, Hydrocarbon, and Smoke Standards

We did not propose and are not setting new standards for CO. Emissions of CO are typically relatively low in diesel engines today compared to non-diesel pollution sources. Furthermore, among diesel application sectors, locomotives and marine diesel engines are already subject to relatively stringent CO standards in Tier 2—essentially 1.5 and 3.7 g/bhp-hr, respectively, compared to the current heavy-duty highway diesel engine CO standard of 15.5 g/bhp-hr. Therefore, the Tier 3 and Tier 4 CO standards for all locomotives and marine diesel engines will remain at current Tier 2 levels and remanufactured Tier 0, 1 and 2 locomotives will likewise continue to be subject to the existing CO standards for each of these tiers. Although we are not setting more stringent standards for CO in Tier 4, we note that aftertreatment devices using precious metal catalysts that we project will be employed to meet Tier 4 PM, $NO_X$ and HC standards will provide meaningful reductions in CO emissions as well.

As discussed in section II, HC emissions, often characterized as VOCs, are precursors to ozone formation, and include compounds that EPA considers to be air toxics. As with CO, emissions of HC are typically relatively low in diesel engines compared to non-diesel sources. However, in contrast to CO standards, the HC standard for Tier 2 line-haul locomotives (0.30 g/bhp-hr), though comparable to HC standards from other diesel applications in Tier 2 and Tier 3, is more than twice that of the long-term 0.14 g/bhp-hr standard set for both the heavy-duty highway 2007 and nonroad Tier 4 programs. For marine diesel engines, the Tier 2 HC standard is expressed as part of a combined $NO_X$+HC standard varying (by engine size) between 5.4 and 8.2 g/bhp-hr, which clearly allows for high HC levels. Our more stringent Tier 3 $NO_X$+HC standards for marine diesel engines will likely provide some reduction in HC emissions, but we expect that the catalyzed exhaust aftertreatment devices used to meet the Tier 4 locomotive and marine $NO_X$ and PM standards will concurrently provide very sizeable reductions in HC emissions. Therefore, in accordance with the Clean Air Act section 213 provisions outlined in section I.B(3) of this preamble, we are applying a 0.14 g/hp-hr HC standard to locomotives and marine diesel engines in Tier 4. This level is the same as that adopted for highway and nonroad diesel engines equipped with high-efficiency aftertreatment.

We are retaining the existing form of the HC standards through Tier 3. That is, locomotive and marine HC standards will remain in the form of total hydrocarbons (THC), except for gaseous- and alcohol-fueled engines (See 40CFR § 92.8 and § 94.8). Likewise, the Tier 3 marine $NO_X$+HC standards are based on THC, except that Tier 3 standards for less than 75 kW (100 hp) engines are

based on NMHC, consistent with their basis in the nonroad engine program. Tier 4 HC standards are expressed as NMHC standards, consistent with aftertreatment-based standards adopted for highway and nonroad diesel engines.

As for other diesel mobile sources, we believe that locomotive smoke standards currently in place are of diminishing usefulness as PM emissions are reduced to very low levels, as these low-PM engines emit very little or no visible smoke. We are therefore not setting smoke standards for locomotives covered under the new 40 CFR Part 1033 created by this final rule, if the locomotives are certified to a PM family emission limit (FEL) or standard of 0.05 g/bhp-hr (0.07 g/kW-hr) or lower. Locomotives certified with PM at higher levels are subject to smoke standards equal to those established previously in Part 92. This allows manufacturers of locomotives certified to Tier 4 PM (or to an FEL slightly above Tier 4) to avoid the unnecessary expense of testing for smoke. Marine diesel engines currently have no smoke standards and we are not setting any in this rule.

Commenters suggested that smoke testing is superfluous for pre-Tier 4 engines as well, because a properly maintained engine meeting any tier of EPA emissions standards will also meet the smoke standards. Based on the available information, we remain unconvinced that this argument is valid in all cases and we are therefore retaining the smoke standards for locomotives with PM FELs above 0.05 g/bhp-hr. However, we do agree that this relationship generally holds true for engines designed to emission standards being set in this rule, and are therefore waiving the smoke test requirement from certification, production line, and in-use testing, unless there is visible evidence of excessive smoke emissions. This provides the test cost savings sought by the manufacturers but retains the EPA enforcement opportunity if smoke should become a problem in engines subject to this program.

*C. Are the Standards Feasible?*

In this section, we describe the feasibility of the various emission control technologies we project will be used to meet the standards we are finalizing today. Because of the range of engines and applications we cover in this rulemaking and because of the diversity in technologies that will be available for them, our standards span a range of emission levels. We have identified a number of different emission control technologies we expect will be used to meet these standards. The technologies range from incremental improvement of existing engine components to highly advanced catalytic exhaust aftertreatment systems similar to those expected to be used to control emissions from heavy-duty diesel trucks and nonroad equipment.

We first describe the feasibility of emission control technologies we project will be used to meet the standards we are finalizing for existing locomotive and marine engines that are remanufactured as new (i.e., Tier 0, 1, 2 locomotives and marine diesel engines >600 kW). We next describe how these same technologies will be applied to meet the interim standards for freshly manufactured engines (i.e., Tier 3). We conclude this section with a discussion of catalytic exhaust aftertreatment technologies projected to be used to meet our Tier 4 standards. Throughout this section, we also address many of the comments submitted by stakeholders concerning the feasibility, applicability, performance, and durability of the emission control technologies we presented in the Notice of Proposed Rulemaking (NPRM). For a more detailed analysis of these technologies, issues related to their application to locomotive and marine diesel engines, and our response to public comments, we refer you to the Regulatory Impact Analysis (RIA) and Summary & Analysis of Comments documents associated with this rulemaking.

(1) Emission Control Technologies for Remanufacture of Existing Locomotives and Marine Diesel Engines >600 kW

In the locomotive sector, emissions standards already exist for engines that are remanufactured as new. Some of these engines were originally unregulated (i.e. Tier 0), and others were originally built to earlier emissions standards (Tier 1 and Tier 2). This rulemaking now requires more stringent standards for these engines whenever the locomotives are remanufactured as new. Our remanufactured engine standards apply to locomotive engines and marine engines >600 kW that were originally built as early as 1973.

We project that incremental improvements to existing engine components will make it feasible to meet both our locomotive and marine remanufactured engine standards for PM. In many cases, these improvements have already been implemented on newly built locomotives to meet our current locomotive standards. To meet the more stringent $NO_X$ standard for the locomotive Tier 0+ and Tier 1+ remanufacturing program, we expect that improvements in fuel system design, engine calibration and optimization of existing after-cooling systems will be used to reduce $NO_X$ from the current 9.5 g/bhp-hr Tier 0 standard to the tightened Tier 1+ standard for $NO_X$ of 7.4 g/bhp-hr. These are the same technologies used to meet the current Tier 1 emission standard of 7.4 g/bhp-hr. In essence, locomotive manufacturers will duplicate current Tier 1 locomotive $NO_X$ and HC emission solutions and incorporate them into the portion of the existing Tier 0 fleet able to accommodate them (i.e. locomotives manufactured with separate-circuit cooling systems for intake air and engine coolant). For older Tier 0 locomotives without separate-circuit cooling systems, reaching the Tier 1 $NO_X$ level will not be possible, and 8.0 g/hp-hr represents the lowest achievable $NO_X$ emission level through the application of improved fuel system design.

To meet the more stringent PM standards for the Tier 0+, 1+, and 2+ locomotive and marine remanufacturing programs (as well as the new locomotive Tier 3 interim standards), we expect that lubricating oil consumption control technologies will be implemented. A significant fraction of the PM in today's medium-speed locomotive and locomotive-based marine engines is comprised of lubricating oil.[129] Engine design changes which reduce oil consumption also reduce the volatile organic fraction of the engine-out PM. Whether oil consumption is reduced through improvements in piston ring-pack design, improved closed crankcase ventilation systems, or a combination of both, lower PM emissions will result. We believe that use of existing low-oil-consumption piston ring-pack designs—in conjunction with improvements to closed crankcase ventilation systems—can provide the significant, near-term PM reductions required for these remanufacturing programs. These PM-reducing technologies can be applied to all medium-speed locomotive and locomotive-based marine engines—including those built as far back as 1973.

For the remanufacture of locomotive- and nonroad-based marine engines >600 kW, we believe that similar improvements to piston ring-pack designs, as well as turbocharger, fuel system, and closed crankcase ventilation system improvements can achieve the 25 percent PM reduction required in this program without the use of exhaust aftertreatment devices.

[129] Smith, B., Osborne, D., Fritz, S., ''AAR Locomotive Emissions Testing 2006 Final Report,'' Association of American Railroads, Document #LA–023.

Turbocharger designs which increase engine airflow or charge air cooling system enhancements which reduce intake air temperatures can reduce PM levels. Fuel system changes such as increased injection pressure or improved injector tip design can enhance fuel atomization, improving combustion efficiency and reducing soot PM. Any combination of these improvements—or other technologies which achieve the 25 percent PM reduction—can become part of a certified marine remanufacture kit.

We believe that some fraction of the remanufacturing systems for locomotives can be developed and certified as early as this year, so we are requiring the usage of the new Tier 0+, Tier 1+ and Tier 2+ emission control systems as soon as they are available. However, we estimate that it will take approximately 2 years to complete the development and certification process for all of the Tier 0+ and Tier 1+ emission control systems, so full implementation of the Tier 0+ and Tier 1+ remanufactured engine standards is not anticipated until it is required in 2010. We base this lead time on the types of technology that we expect to be implemented and on the amount of lead time locomotive manufacturers needed to certify similar systems for our current remanufacturing program. The lead time required to implement the design changes necessary to meet the Tier 3 and remanufactured Tier 2 locomotive PM emission standards led to an implementation date of 2012 for new Tier 3 engines and 2013 for remanufactured Tier 2 engines. These engine changes include further improvements to ring pack designs (especially for two-stroke engines) and the implementation of high efficiency crankcase ventilation systems, which are described and illustrated in detail in Chapter 4 of the RIA.

(2) Emission Control Technologies for New Tier 3 Locomotive and Marine Diesel Engines

The new Tier 3 locomotive and marine diesel engine standards require PM reductions relative to current Tier 2 levels. Based upon our on-highway and nonroad clean diesel experience, we expect that the introduction of ULSD fuel into the locomotive and marine sectors will reduce sulfate PM formation and assist in meeting the PM standards for locomotives (both remanufactured Tier 2 and new Tier 3) and new marine diesel engines. We believe that the combination of reduced sulfate PM and incremental design changes that bring oil and crankcase emission control to near Tier 3 nonroad or 2007 heavy-duty on-highway levels can provide at least a 50 percent reduction in PM emissions.

For Tier 3 marine diesel engines (which are, in almost all instances, a derivative of land-based nonroad and locomotive engines), the technologies and design changes needed to meet the more stringent $NO_X$ and PM standards are already being developed for nonroad Tier 4 applications. In order to meet our nonroad Tier 4 emission levels, these engines, in the years before 2012, will see significant base engine improvements designed to reduce engine-out emissions. For details on the design, calibration, and hardware changes we expect will be used to meet the Tier 3 standards for lower horsepower marine engines, we refer you to our nonroad Tier 4 rulemaking.[130] For example, we expect that marine engines will utilize high-pressure, common-rail fuel injection systems or improvements in unit injector design. When such fuel system improvements are used in conjunction with engine mapping and calibration optimization, the marine Tier 3 diesel engine standards can be met. In the case of locomotive-based marine engines, we expect that manufacturers will transfer the technologies used to meet locomotive standards to the marine engine designs.

The 2009 Tier 3 start date for marine engines <75 kW constitutes a special case. We proposed this very early start date, matched with standard levels equal to the nonroad engine Tier 4 standard levels that take effect in 2008, based on our assessment that these engines are close derivatives of the nonroad engines on which they are based—in some cases, with no substantive modifications. The 2009 start date accounts for time needed to make the necessary modifications, prepare for and conduct the certification process, and deal with the large overall workload burden for diesel engine manufacturers. Although the manufacturers commented that this is a very aggressive schedule, at the limits of feasibility, they did not refute our assessment. Their objections to implementation of the not-to-exceed (NTE) standard on the same schedule, and our response, are discussed in section IV.A(3).

Because all of the aforementioned technologies to reduce $NO_X$ and PM emissions can be developed for production, certified, and introduced into the marine engine sector without extended lead-time, we believe these technologies can be implemented for some engines as early as 2009, and for all engines by 2014, on a schedule that very closely follows the nonroad Tier 4 engine changes.

(3) Catalytic Exhaust Aftertreatment Technologies for Tier 4 Locomotive and Marine Engines

For marine diesel engines in commercial service that are greater than 600 kW and for all locomotives, we are setting stringent Tier 4 standards based on the use of advanced catalytic exhaust aftertreatment systems to control both PM and $NO_X$ emissions. There are four main issues to address when analyzing the application of this technology to these new sources: The efficacy of the fundamental catalyst technology in terms of the percent reduction in emissions given certain engine conditions such as exhaust temperature; its appropriateness in terms of packaging; its long-term durability; and whether the technology significantly impacts an industry's supply chain infrastructure—especially with respect to supplying urea reductant for $NO_X$ aftertreatment on locomotives and marine vessels. We have carefully examined these points, and based upon our analysis (detailed in Chapter 4 of the RIA), we have identified robust PM and $NO_X$ catalytic exhaust aftertreatment systems that are suitable for locomotives and marine engines that also pose a manageable impact on the rail and marine industries' infrastructure.

(a) Catalytic PM Emission Control Technology

The most effective exhaust aftertreatment used for diesel PM emission control is the diesel particulate filter (DPF). In Europe, more than one million light-duty diesel passenger cars are OEM-equipped with DPF systems, and worldwide, over 200,000 DPF retrofits to diesel engines have been completed.[131] Broad application of catalyzed diesel particulate filter (CDPF) systems with greater than 90 percent PM control began with the successful introduction of 2007 model year heavy-duty diesel trucks in the United States. These systems use a combination of passive and active soot regeneration strategies. CDPF systems utilizing metal substrates are a further development that balances a degree of elemental carbon soot control with reduced

[130] "Final Regulatory Impact Analysis: Control of Emissions from Nonroad Diesel Engines," EPA420–R–04–007, May 2004, Docket EPA–HQ–OAR–2003–0012. The RIA is also available online at *http://epa.gov/nonroad-diesel/2004fr/420r04007.pdf.*

[131] "Diesel Particulate Filter Maintenance: Current Practices and Experience", Manufacturers of Emission Controls Association, June 2005, online at *http://meca.org/galleries/default-file/Filter_Maintenance_White_Paper_605_final.pdf.*

backpressure, improved ability of the trap to clear oil ash, greater design freedom regarding filter size/shape, and greater system robustness. Metal-CDPFs were initially introduced as passive-regeneration retrofit technologies for diesel engines designed to achieve approximately 60 percent control of PM emissions. Recent data from development of these systems for Euro-4 truck applications has shown that metal-CDPF trapping efficiency for elemental carbon PM can exceed 70 percent for engines with inherently low elemental carbon emissions.[132]

Data from locomotive testing confirms a relatively low elemental carbon fraction and relatively high organic fraction for PM emissions from medium-speed Tier 2 locomotive engines.[133] The use of an oxidizing catalyst with platinum group metals (PGM) coated directly to the CPDF combined with a diesel oxidation catalyst (DOC) mounted upstream of the CDPF will provide 95 percent or greater removal of HC, including the semi-volatile organic compounds that contribute to PM. Such systems will reduce overall PM emissions from a locomotive or marine diesel engine by approximately 90 percent from today's levels.

We believe that locomotive and marine diesel engine manufacturers will benefit from the extensive development taking place to implement DPF technologies in advance of the heavy-duty truck and nonroad PM standards in Europe and the United States. Given the steady-state operating characteristics of locomotive and marine engines, DPF regeneration strategies will certainly be capable of precisely controlling PM under all conditions and passively regenerating whenever the exhaust gas temperature is >250 °C. Therefore, we believe that the Tier 4 PM standards we are adopting for locomotive and marine diesel engines are technologically feasible. And given the level of activity in the on-highway and nonroad sectors to implement DPF technology, we have concluded that our implementation dates for locomotive and marine diesel engines are appropriate and achievable.

(b) Catalytic $NO_X$ Emission Control Technology

We have analyzed a variety of technologies available for $NO_X$ reduction to determine their applicability to diesel engines in the locomotive and marine sectors. As described in more detail in Chapter 4 of the RIA, we expect locomotive and marine diesel engine manufacturers will choose to use Selective Catalytic Reduction (SCR) to comply with our new standards. SCR is a commonly-used aftertreatment device for meeting stricter $NO_X$ emissions standards in diesel applications worldwide. Stationary power plants fueled with coal, diesel, and natural gas have used SCR for three decades as a means of controlling $NO_X$ emissions, and currently European heavy-duty truck manufacturers are using this technology to meet Euro 5 emissions limits. To a lesser extent, SCR has been introduced on diesel engines in the U.S. market, but the applications have been largely limited to ferry boats and stationary electrical power generation demonstration projects in California and several of the Northeast states. However, several heavy-duty truck engine manufacturers have indicated that they will use SCR technology by 2010, when 100 percent of the heavy-duty diesel trucks are required to meet the $NO_X$ limits of the 2007 heavy-duty highway rule.[134, 135] Providing comment on our NPRM, locomotive and marine diesel engine manufacturers confirm that they expect to use urea-SCR catalyst systems to comply with our Tier 4 standards. While other promising $NO_X$-reducing technologies such as lean $NO_X$ catalysts, $NO_X$ adsorbers, and advanced combustion control continue to be developed (and may be viable approaches to the standards we are setting today), our analysis assumes that SCR will be the Tier 4 $NO_X$ technology of choice in the locomotive and marine diesel engine sectors.

An SCR catalyst supports the chemical reactions which reduce nitrogen oxides in the exhaust stream to elemental nitrogen ($N_2$) and water by using ammonia ($NH_3$) as the reducing agent. The most-common method for supplying ammonia to the SCR catalyst is to inject an aqueous urea-water solution into the exhaust stream. In the presence of high-temperature exhaust gasses (>250 °C), the urea hydrolyzes to form $NH_3$ and $CO_2$. The $NH_3$ is stored on the surface of the SCR catalyst where it is used to complete the $NO_X$-reduction reaction. In theory, it is possible to achieve 100 percent $NO_X$ conversion if the $NH_3$-to-$NO_X$ ratio ($\alpha$) is 1:1 and the space velocity within the catalyst is not excessive. However, given the space limitations in packaging exhaust aftertreatment devices in mobile applications, an $\alpha$ of 0.85–1.0 is often used to balance the need for high $NO_X$ conversion rates against the potential for $NH_3$ slip (where $NH_3$ passes through the catalyst unreacted). The urea dosing strategy and the desired $\alpha$ are dependent on the conditions present in the exhaust gas; namely temperature and the quantity of $NO_X$ present (which can be determined by engine mapping, temperature sensors, and $NO_X$ sensors). Overall $NO_X$ conversion efficiency, especially under low-temperature exhaust gas conditions, can be improved by controlling the ratio of two $NO_X$ species within the exhaust gas; $NO_2$ and NO. This can be accomplished through use of an oxidation catalyst upstream of the SCR catalyst to promote the conversion of NO to $NO_2$. The physical size and catalyst formulation of the oxidation catalyst are the principal factors that control the $NO_2$-to-NO ratio, and by extension, improve the low-temperature performance of the SCR catalyst.

Recent studies have shown that SCR systems are capable of providing well in excess of 80 percent $NO_X$ reduction efficiency in high-power, diesel applications.[136, 137, 138] SCR catalysts can achieve significant $NO_X$ reduction throughout much of the exhaust gas temperature operating range observed in locomotive and marine applications. Collaborative research and development activities between diesel engine manufacturers, truck manufacturers, and SCR catalyst suppliers have also shown that SCR is a mature, cost-effective solution for $NO_X$ reduction on diesel engines in other mobile sources. While many of the published studies have focused on highway truck applications, similar trends, operational characteristics, and $NO_X$ reduction efficiencies have been reported for marine and stationary applications as well.[139] Given the preponderance of studies and data—and our analysis summarized here and detailed in Chapter 4 of the RIA—we have

[132] Jacob, E., Laëmmerman, R., Pappenheimer, A., Rothe, D. ''Exhaust Gas Aftertreatment System for Euro 4 Heavy-duty Engines'', MTZ, June, 2006.

[133] Smith, B., Osborne, D., Fritz, S. ''AAR Locomotive Emissions Testing 2006 Final Report'' Association of American Railroads, Document #LA–023.

[134] ''Review of SCR Technologies for Diesel Emission Control: European Experience and Worldwide Perspectives,'' presented by Dr. Emmanuel Joubert, 10th DEER Conference, July 2004.

[135] Lambert, C., ''Technical Advantages of Urea SCR for Light-Duty and Heavy-Duty Diesel Vehicle Applications,'' SEA Technical Paper 2004–01–1292, 2004.

[136] Walker, A.P. et al., ''The Development and In-Field Demonstration of Highly Durable SCR Catalyst Systems,'' SAE 2004–01–1289.

[137] Conway, R. et al., ''Combined SCR and DPF Technology for Heavy Duty Diesel Retrofit,'' SAE Technical Paper 2005–01–1862, 2005.

[138] ''The Development and On-Road Performance and Durability of the Four-Way Emission Control SCRTTM System,'' presented by Andy Walker, 9th DEER Conference, August 28, 2003.

[139] Telephone conversation with Gary Keefe, Argillon, June 6, 2006.

concluded that this technology is appropriate for locomotive and marine diesel applications. Furthermore, locomotive and marine diesel engine manufacturers will benefit from the extensive development taking place to implement SCR technologies in advance of the heavy-duty truck $NO_X$ standards in Europe and the U.S. The urea dosing systems for SCR, already in widespread use across many different diesel applications, are expected to become more refined, robust, and reliable in advance of our Tier 4 locomotive and marine standards. Given the predominately steady-state operating characteristics of locomotive and marine engines, SCR $NO_X$ control strategies will certainly be capable of precisely controlling $NO_X$ under all conditions whenever the exhaust gas temperature is greater than 250 °C.

To ensure that we have the most up-to-date information on urea-SCR $NO_X$ technologies and their application to locomotive and marine engines, we have met with a number of locomotive and marine engine manufacturers, as well as manufacturers of catalytic $NO_X$ emission control systems. Through our discussions we have learned that some engine manufacturers perceive some risk regarding urea injection accuracy and long-term catalyst durability, both of which could result in either less efficient $NO_X$ reduction or ammonia emissions. Comments on our NPRM, submitted by the Manufacturers of Emission Controls Association (MECA), provided additional information on the issues of urea dosing accuracy, catalyst durability, and system performance and their comments are consistent with our own analysis that urea-SCR technology can provide durable control of $NO_X$ emissions. We have carefully investigated these issues for other diesel applications and conclude that precise urea injection systems and durable catalysts already exist and have been applied to urea-SCR $NO_X$ emission control systems which are similar to those that we expect to be implemented in locomotive and marine applications.

Urea injection systems applied to on-highway diesel trucks and diesel electric power generators already ensure the precise injection of urea, and these applications have similar—if not more dynamic—engine operation as compared to locomotive and marine engine operation. To ensure precise urea injection across all engine operating conditions, these systems utilize $NO_X$ sensors to maintain closed-loop feedback control of urea injection. These $NO_X$-sensor-based feedback control systems are similar to oxygen sensor-based systems that are used with catalytic converters on virtually every gasoline vehicle on the road today. These systems, already developed for many diesel engines, are directly applicable to locomotive and marine engines as well.

(c) Durability of Catalytic PM and $NO_X$ Emission Control Technology

Published studies indicate that SCR systems will experience very little deterioration in $NO_X$ conversion throughout the life-cycle of a diesel engine.[140, 141] The principal mechanism of deterioration in an SCR catalyst is thermal sintering—the loss of catalyst surface area due to the melting and growth of active catalyst sites under high-temperature conditions (as the active sites melt and combine, the total number of active sites at which catalysis can occur is reduced). This effect can be minimized by design of the SCR catalyst washcoat and substrate for the exhaust gas temperature window in which it will operate. Several commenters noted that locomotives are subject to consist operation in tunnels, which results in elevated exhaust gas temperatures. Further, they speculated that these elevated exhaust temperatures could reach 700 °C—a temperature that could lead to deterioration of catalyst performance over the useful life of a locomotive. To investigate this scenario, EPA conducted a study (in cooperation with locomotive manufacturers and the railroads) in August, 2007 on Union Pacific's Norden tunnel system (between Sparks, NV and Roseville, CA).[142] We determined that the peak, post-turbine exhaust gas temperature observed in the 2 trailing units of a 4-unit lead consist was only 560 °C. In light of this new information, we are more confident that catalytic aftertreatment devices will be both effective and durable when used in locomotive service.

Another mechanism for catalyst deterioration is chemical poisoning—the plugging and/or chemical de-activation of active catalytic sites. Phosphorus from the engine oil and sulfur from diesel fuel are the primary components in the exhaust stream which can de-activate a catalytic site. The risk of catalyst deterioration due to sulfur poisoning will be all but eliminated with the 2012 implementation of ULSD fuel (<15 ppm S) for locomotive and marine applications. Locomotive and marine operators will already have several years of experience running ULSD fuel by the time $NO_X$ aftertreatment technology is required. Catalyst deterioration due to chemical poisoning can also be reduced through the use of an engine oil with lower levels of sulfated ash, phosphorous, and sulfur (commonly referred to as ''low-SAPS'' oil). Such an oil formulation, designed for use in 2007 DPF- and DOC-equipped on-highway, heavy-duty engines was introduced in October 2006 and is specified by the American Petroleum Institute (API) as ''CJ–4.''[143] This specification has new and/or lower limits on the amount of sulfated ash, phosphorous, and sulfur an oil may contain and was developed specifically for 2007 on-highway engines equipped with exhaust aftertreatment technologies running on ULSD fuel. Previous oil formulations for heavy-duty, on-highway engines, such as API CI–4, did not specify a limit for sulfur content, and allowed higher levels of phosphorous (0.14% vs. 0.12%) and ash (1.2~1.5% vs. 1.0%) content.[144]

The migration of low-SAPS engine oil properties to future locomotive and marine oil formulations—while beneficial and directionally helpful in regards to the durability, performance, and maintenance of the exhaust aftertreatment components we reference—does not affect our feasibility analysis. European truck and marine applications have shown that SCR is a durable technology even without using a low-SAPs oil formulation. One commenter suggested that these newer, low-SAPS oil formulations, developed for use in on-highway and nonroad diesel engines, may not be appropriate for locomotive or marine applications. While we acknowledge that the exact oil formulation for locomotive and marine applications using ULSD fuel is not known today, we do believe that there is adequate time to develop an appropriate oil formulation. For example, in the State of California, all

[140] Conway, R. et al., ''$NO_X$ and PM Reduction Using Combined SCR and DPF Technology in Heavy Duty Diesel Applications,'' SAE Technical Paper 2005–01–3548, 2005.

[141] Searles, R.A., et al., ''Investigation of the Feasibility of Achieving EURO V Heavy-Duty Emission Limits with Advanced Emission Control Systems,'' 2007 AECC Conference—Belgium, Paper Code: F02E310.

[142] ''Locomotive Exhaust Temperatures During High Altitude Tunnel Operation In Donner Pass,'' U.S. EPA, August 29, 2007. This document is available in Docket EPA–HQ–OAR–2003–0190–0736.

[143] ''API CJ–4 Performance Specifications,'' American Petroleum Institute, online at *http://apicj-4.org/performance_spec.html*. This document is available in Docket EPA–HQ–OAR–2003–0190–0738.

[144] ''CJ–4 Performance Specification: Frequently Asked Questions,'' Lubrizol, online at *http://www.lubrizol.com/cj-4/faq.asp*. This document is available in Docket EPA–HQ–OAR–2003–0190–0741.

intra-state locomotives, marine vessels (in the SCAQMD), and nonroad engines have been operating with ULSD fuel since June, 2006—so there should already be field data/experience available today to begin developing an oil formulation for ULSD in advance of the implementation date for aftertreatment-forcing standards. In addition, the nonroad sector will have transitioned to ULSD fuel nationwide by June, 2010, followed by the locomotive sector in June, 2012—again, leaving ample time to develop an oil formulation which does not contain any more sulphated-ash than necessary to neutralize crankcase acids.

Thermal cycling, mechanical vibration, and shock loads are all factors which can affect the mechanical durability of exhaust system components. The stresses applied to the aftertreatment devices by these factors can be managed through the selection of proper materials and the design of support and mounting structures which are capable of withstanding the shock and vibration levels present in locomotive and marine applications. One commenter to our NPRM stated that shock loading for a locomotive catalyst is estimated to be 10–12 g. This level of shock loading is consistent with the levels that catalyst substrate manufacturers, catalyst canners, and exhaust system manufacturers are currently designing to (for OEM aftertreatment systems and components subject to the durability requirements of on-highway, marine, and nonroad applications). Nonroad applications such as logging equipment are subject to shock loads in excess of 10 g and on-highway applications can exceed 30 g (with some OEM applications specifying a 75 g shock load requirement).[145] In addition, the American Bureau of Shipping (ABS) specification for exhaust manifolds on diesel engines states that these parts may need to withstand vibration levels as high as ±10 g at 600 °C for 90 minutes.[146] Given these examples of shock and vibration requirements for today's nonroad, on-highway, and marine environments, we believe that appropriate support structures can be designed and developed for the aftertreatment devices we expect to be used on Tier 4 locomotives.

(d) Packaging of Catalytic PM and $NO_X$ Emission Control Technologies

Locomotive manufacturers will need to design the exhaust system components to accommodate the aftertreatment system. Our analysis, detailed in the RIA, shows that the packaging requirements for the aftertreatment system are such that they can be accommodated within the envelope defined by the Association of American Railroads (AAR) Plate ''L'' clearance diagram for freight locomotives.[147] The typical volume required for the SCR catalyst and post-SCR ammonia slip catalyst for Euro V and U.S. 2010 heavy-duty truck applications is approximately 2 times the engine displacement, and the upstream DOC/CDPF volume is approximately 1–1.5 times the engine displacement. Due to the longer useful life and maintenance intervals required for locomotive applications, we estimate that the SCR catalyst volume will be sized at approximately 2.5 times the engine displacement, and the combined DOC/CDPF volume will be approximately 1.7 times the engine displacement. For a typical locomotive engine with 6 $ft^3$ of total cylinder displacement, the volume requirement for the aftertreatment components alone would be approximately 25 $ft^3$ (of the 80 $ft^3$ estimated to be available for packaging these components and their associated ducts/hardware above the engine).

EPA engineers have examined Tier 2 EMD and GE line-haul locomotives and acknowledge that packaging the necessary aftertreatment components will be a difficult task. However, this task should not be more difficult (and will quite likely less so) than the packaging challenges faced by nonroad and on-highway applications. Given the space available on today's locomotives, we feel that packaging catalytic PM and $NO_X$ emission control technologies onboard locomotives may be less challenging than packaging similar technologies onboard other mobile sources (such as light-duty vehicles, heavy-duty trucks, and nonroad equipment). Given that similar exhaust systems are either already implemented onboard these vehicles or will be implemented on these vehicles years before similar systems would be required onboard locomotives and marine vessels, we have concluded that any packaging issues will be successfully addressed early in the locomotive and marine vessel design process. Our analysis concludes that there is adequate space to package these components, as well as their associated ducts, transitions, and urea/exhaust mixing devices. This conclusion also applies to new switcher locomotives as well, which while being shorter in length than line-haul locomotives, are also equipped with smaller, less-powerful engines—resulting in smaller volume requirements for the aftertreatment components.

For commercial vessels which use marine diesel engines greater than 600 kW, we expect these vessels will be designed to accommodate the exhaust system components engine manufacturers specify as necessary to meet the new standards. Our discussions with marine architects and engineers, along with our review of vessel characteristics, leads us to conclude that for commercial marine vessels, adequate engine room space can be made available to package aftertreatment components. Packaging of these components, and analyzing their mass/placement effect on vessel characteristics, will become part of design process undertaken by marine architecture firms.[148]

We did determine, however, that for recreational vessels and for vessels equipped with engines less than 600 kW, catalytic PM and $NO_X$ exhaust aftertreatment systems were less practical from a packaging standpoint than for the larger, commercially operated vessels. We have identified catalytic emission control systems that would significantly reduce emissions from these smaller vessels. However, after taking into consideration costs, energy, safety, and other relevant factors, we found a number of reasons, detailed in the RIA, to not adopt any new exhaust aftertreatment-forcing standards at this time on these smaller vessels. One reason is that most of these vessels use seawater-cooled exhaust systems—and even seawater injection into their exhaust systems—to cool engine exhaust gases and prevent the overheating materials such as a fiberglass hull. This current practice of cooling and seawater injection could reduce the effectiveness of catalytic exhaust aftertreatment systems. This is significantly more challenging than for gasoline catalyst systems due to much larger relative catalyst sizes and cooler exhaust temperatures typical of diesel engines. In addition, because of these vessels' small size and their typical operation by planing high on the surface

[145] Correspondence from Adam Kotrba of Tenneco. This document is available in Docket EPA–HQ–OAR–2003–0190–0742.

[146] ''ABS Rules for Building and Classing—Steel Vessels Under 90 Meters (295 Feet) In Length,'' Part 4—Vessel Systems and Machinery, American Bureau of Shipping, 2006.

[147] ''AAR Manual of Standards and Recommended Practices,'' Standard S–5510, Association of American Railroads.

[148] Telephone conversation between Brian King, Elliot Bay Design Group, and Brian Nelson, EPA, July 24, 2006.

of the water, catalytic exhaust aftertreatment systems pose several significant packaging and weight challenges. These challenges could be addressed by the use of lightweight hull and superstructure materials. But any solution which employs new, lightweight hull and superstructure materials would have to be developed, tested and approved by classifying organizations prior to their application on vessels using catalytic exhaust aftertreatment systems. Taken together, these factors led us to conclude that it is not prudent to set aftertreatment-forcing emission standards for marine diesel engines below 600 kW at this time.

(e) Infrastructure Impacts of Catalytic PM and $NO_X$ Emission Control Technologies

For PM trap technology the rail and marine industries will experience minimal impacts on their infrastructures. Since PM trap technology relies on no separate reductant, any infrastructure impacts will be limited to some minor changes in maintenance practices and equipment at maintenance facilities. Such maintenance will be limited to the infrequent removal of ash buildup from within a PM trap. This type of maintenance may require that maintenance facilities periodically remove PM traps for ash cleaning and may involve the use of a crane or other lifting device. We understand that much of this kind of infrastructure already exists for other locomotive and marine engine maintenance practices. We have toured shipyards and locomotive maintenance facilities at rail switchyards, and we observed that such facilities are generally already adequate for any required PM trap removal and maintenance.

We do expect some impact on the railroad and marine sectors to accommodate the use of a separate reductant for use in a $NO_X$ SCR system. For light-duty, heavy-duty, and nonroad applications, the commonly preferred reductant in an SCR system has been a 32.5 percent urea-water solution. The 32.5 percent solution, also known as the ''eutectic'' concentration, provides the lowest freezing point (−11 °C or 12 °F) and ensures that the ratio of urea-to-water will not change when the solution begins to freeze.[149] Heated urea storage tanks and insulation of the urea dosing hardware onboard the locomotive (urea storage tank, pump, and lines) may be necessary to prevent freeze-up in northern climates. Locomotives and marine vessels are commonly refueled from large, centralized fuel storage tanks, tanker trucks, or tenders with long-term purchase agreements. Urea suppliers will be able to distribute urea to the locomotive and marine markets in a similar manner, or they may choose to employ multi-compartment diesel fuel/urea tanker trucks for delivery of both products simultaneously. The frequency that urea will need to be replenished is dependent on many factors; urea storage capacity, engine duty-cycle, and expected urea dosing rate for each application. We expect that locomotive manufacturers and marine vessel designers will size the urea storage tanks appropriate to the usage factors for each application plus some margin-of-safety (to reduce the probability that an engine will be operated without urea). Discussions concerning the urea infrastructure in North America and specifications for an emissions-grade urea solution are now under way amongst light- and heavy-duty on-highway diesel stakeholders.

Although an infrastructure for widespread transportation, storage, and dispensing of SCR-grade urea does not currently exist in the U.S., the affected stakeholders in the light- and heavy-duty on-highway and nonroad diesel sectors are expected to follow the European model, where diesel engine/truck manufacturers and fuel refiners/distributors have formed a collaborative working group known as ''AdBlue.'' The goal of the AdBlue organization is to resolve potential problems with the supply, handling, and distribution of urea and to establish standards for product purity.[150] With regard to urea production capacity, the U.S. has more-than-sufficient capacity to meet the additional needs of the rail and marine industries. For example, in 2003, the total diesel fuel consumption for Class I railroads was approximately 3.8 billion gallons.[151] If 100 percent of the Class I locomotive fleet were equipped with SCR catalysts, approximately 190 million gallons-per-year of 32.5 percent urea-water solution would be required.[152] It is estimated that 190 million gallons of urea solution would require 0.28 million tons of dry urea (1 ton dry urea is needed to produce 667 gallons of 32.5 percent urea-water solution). Currently, the U.S. consumes 14.7 million tons of ammonia resources per year, and relies on imports for 41 percent of that total (of which, urea is the principal derivative). In 2005 domestic ammonia producers operated their plants at 66 percent of rated capacity, resulting in 4.5 million tons of reserve production capacity.[153] In the very long-term situation above, where 100 percent of the locomotive fleet required urea, only 6.2 percent of the reserve domestic capacity would be needed to satisfy the additional demand. A similar analysis for the marine industry, with a yearly diesel fuel consumption of 2.2 billion gallons per year, would not significantly impact the urea demand-to-reserve capacity equation. Since the rate at which urea-SCR technology is introduced to the railroad and marine markets will be gradual—and the reserve urea production capacity is more-than-adequate to meet the expected demand from all diesel markets in the 2017 timeframe—EPA does not project any urea cost or supply issues, beyond the costs estimated in the RIA, will result from implementing the Tier 4 standards.

(f) Unregulated Pollutants

There is potential for the formation of unregulated pollutants of significant concern to EPA any time engine technologies change, including when new emission control technologies are added. Some examples of these unregulated pollutants include $N_2O$ and ammonia ($NH_3$). In addition, failure to dose urea in an SCR system while operating under load may cause elevated $NO_2$ emissions. Similarly, use of a CDPF that produces $NO_2$ in excess of what is needed for passive regeneration—and operated without a downstream SCR system—may lead to elevated $NO_2$ emissions. Such increased $NO_2$ emissions could be a concern for operation in enclosed environments such as locomotive operation in minimally ventilated or unventilated tunnels. Similarly, use of $NO_X$ reduction catalysts with poor selectivity could result in elevated $N_2O$ emissions. An aggressive urea dosing strategy within an SCR system (for high levels of $NO_X$ control) without a properly designed/calibrated feedback control system, ammonia slip catalyst, or adequate exhaust/urea mixing could also result in elevated ammonia ($NH_3$) emissions.

[149] Miller, W. et al., ''The Development of Urea-SCR Technology for US Heavy Duty Trucks,'' SAE Technical Paper 2000–01–0190, 2000.

[150] ''Ensuring the Availability and Reliability of Urea Dosing for On-Road and Non-Road,'' presented by Glenn Barton, Terra Corp., 9th DEER Conference, August 28, 2003.

[151] ''National Transportation Statistics—2004,'' Table 4–5, U.S. Bureau of Transportation Statistics.

[152] Assuming the dosing rate of 32.5 percent urea-water solution is 5 percent of the total fuel consumed; 3.8 billion gallons of diesel fuel * 0.05 = 190 million gallons of urea-water solution.

[153] ''Mineral Commodity Summaries 2006,'' page 118, U.S. Geological Survey, online at *www.minerals.usgs.gov/minerals/pubs/mcs/mcs2006.pdf.*

These $NH_3$ emissions, which can be minimized through the use of closed-loop feedback and control of urea injection, can be all-but-eliminated through use of an oxidation catalyst downstream of the SCR catalyst. Such catalysts, commonly referred to as ''slip catalysts,'' are in use today and have been shown to be highly effective at eliminating ammonia emissions.[154]

The issue of $NH_3$ emissions (or ammonia slip) was raised by several commenters, with claims that excessive $NH_3$ emissions are ''inevitable'', and may reach 25 ppm during steady-state operation and 100 ppm during transient operation. We have assessed this issue and concluded that a properly-designed slip catalyst, with good selectivity to nitrogen ($N_2$), can convert most of the excess $NH_3$ released from the SCR catalyst into $N_2$ and water. Recent studies by Johnson Matthey and the Association for Emissions Control by Catalyst (AECC) have shown that an aged SCR system equipped with a slip catalyst can achieve tailpipe $NH_3$ levels of less of than 10 ppm when tested on the European Stationary Cycle (ESC) and European Transient Cycle (ETC).[154, 155] The SCR system in the Johnson Matthey study was aged on a cycle which included 400 hours of high-temperature operation at 650 °C (to simulate active DPF regeneration events). Our analysis of the locomotive engine operating conditions presumes a maximum, post-turbine exhaust temperature of 560 °C. This presumption is based on implementation of a ''passive'' DPF regeneration approach (in which $NO_2$ created by the oxidation catalyst is sufficient to oxidize trapped soot) and our own testing of locomotives during operation in non-ventilated tunnels.[142] Under these conditions, we expect slip catalysts to be durable and effective in reducing $NH_3$ slip.

We expect manufacturers to be conscious of these possibilities and to take appropriate action to minimize or prevent the formation of unregulated pollutants when designing emission control systems. Manufacturers must comply with the ''Prohibited Controls'' section of 40 CFR 1033.115(c), which states:

''You may not design or produce your locomotives with emission control devices, systems, or elements of design that cause or contribute to an unreasonable risk to public health, welfare, or safety while operating. For example, this would apply if the locomotive emits a noxious or toxic substance it would otherwise not emit that contributes to such an unreasonable risk.''

Emission control systems designed to meet the 2007 and 2010 heavy-duty truck and Tier 2 light-duty vehicle emission standards already take these unregulated pollutants into account through compliance with section 202(A)(4) of the Clean Air Act. CDPF systems that minimize formation of excess $NO_2$ while still relying primarily on passive regeneration have entered production for OEM and retrofit applications. Compact urea-SCR systems that have been developed to meet the U.S. 2010 heavy-duty truck standards use closed-loop controls that continuously monitor $NO_X$ reduction performance. Such systems have the capability to control stack emissions of $NH_3$ to below 5 ppm during transient operation even without the use of an ammonia slip catalyst. We understand that such systems may still emit some very small level of uncontrolled pollutants and we would not generally consider a system that releases de minimis amounts of $NH_3$ or $N_2O$ while employing technology consistent with limiting these emissions to be in violation of § 1033.115(c)—which is the same way we currently treat passenger cars and heavy-duty trucks with regard to $N_2O$ and $H_2S$ emissions.

(4) The New Standards Are Technologically Feasible

Our rulemaking involves a range of engines, and we have identified a range of technologically feasible emission control technologies that we project will be used to meet our new standards. Some of these technologies are incremental improvements to existing engine components, and many of these improved components have already been applied to similar engines. The other technologies we identified involve catalytic exhaust aftertreatment systems. For these technologies we carefully examined the catalyst technology, its applicability to locomotive and marine engine packaging constraints, its durability with respect to the lifetime of today's locomotive and marine engines, and its impact on the infrastructure of the rail and marine industries. From our analysis, which is presented in detail in our RIA, we conclude that incremental improvements to engine components and the implementation of catalytic PM and $NO_X$ exhaust aftertreatment technology will be feasible to meet our new emissions standards.

## IV. Certification and Compliance Program

This section describes the regulatory changes being finalized for the locomotive and marine compliance programs, beyond the standards discussed in section III. The most obvious change is that the regulations have been written in plain language. They are structured to contain the provisions that are specific to locomotives in a new part 1033 and the provisions that are specific to marine engines and vessels in a new part 1042. We also proposed to apply the general provisions of existing parts 1065 and 1068.[156] The plain language regulations, however, are not intended to significantly change the compliance program, except as specifically noted in today's notice. These plain language regulations will supersede the regulations in part 92 and 94 (for Categories 1 and 2) as early as the 2008 model year. See section III for the starting dates for different engines. The changes from the existing programs are described below briefly along with other notable aspects of the compliance program. See the regulatory text for the detailed requirements and see the Summary and Analysis of Comments document for a more complete rationale for the changes being adopted. **Note:** The term manufacturer is used in this section to include locomotive and marine manufacturers and remanufacturers.

### *A. Issues Common to Locomotives and Marine*

For many aspects of compliance, we are adopting similar provisions for marine engines and locomotives, which are discussed in this section. Several other issues are also included in this section, where we are specifying different provisions, but where the issues are similar in nature. The remaining compliance issues are discussed in sections IV.B. (for locomotives) and IV.C. (for marine).

(1) Test Procedures

(a) Incorporation of Part 1065 Test Procedures for Locomotive and Marine Diesel Engines

As part of our initiative to update the content, organization and writing style

[154] Smedler, Gudmund, ''$NO_X$ Emission Control Options'', 2007 HDD Emission Control Symposium—Gothenberg, Sweden, September 11, 2007.

[155] Searles, R.A., et al., ''Investigation of Feasibility of Achieving EURO V Heavy-Duty Emission Limits with Advanced Emission Control Systems,'' 2007 AECC Conference—Belgium, Paper Code: F02E310.

[156] We proposed modifications to the existing provisions of 40 CFR part 1068 on May 18, 2007 (72 FR 28097). Readers interested in the compliance provisions that will apply to locomotives and marine diesel engines should also read the actual regulatory changes in that will be finalized in that rulemaking.

of our regulations, we are revising our test procedures. We have grouped all of our engine dynamometer and field testing test procedures into one part entitled, ''Part 1065: Test Procedures.'' For each engine or vehicle sector for which we have recently promulgated standards (such as land-based nonroad diesel engines or recreational vehicles), we identified an individual part as the standard-setting part for that sector. These standard-setting parts then refer to one common set of test procedures in part 1065. These programs regulate land-based on-highway heavy-duty engines, land-based nonroad diesel engines, recreational vehicles, and nonroad spark-ignition engines over 19 kW. In this rule, we are applying part 1065 to all locomotive and marine diesel engines, as part of a plan to eventually have all our engine programs refer to a common set of procedures.

In the past, each engine or vehicle sector had its own set of testing procedures. There are many similarities in test procedures across the various sectors. However, as we introduced new regulations for individual sectors, the more recent regulations featured test procedure updates and improvements that the other sectors did not have. As this process continued, we recognized that a single set of test procedures allows for improvements to occur simultaneously across engine and vehicle sectors. A single set of test procedures is easier to understand than trying to understand many different sets of procedures, and it is easier to move toward international test procedure harmonization if we only have one set of test procedures. We note that procedures that are particular for different types of engines or vehicles, for example, test schedules designed to reflect the conditions expected in use for particular types of vehicles or engines, remain separate and are reflected in the standard-setting parts of the regulations.

The part 1065 test procedures are organized and written to be clearer than locomotive- and marine-specific test procedures found in parts 92 and 94. In addition, part 1065 improves the content of the respective testing specifications, including the following:

- Specifications and calculations written in the international system of units (SI)
- Procedures by which manufacturers can demonstrate that alternate test procedures are equivalent to specified procedures
- Specifications for new measurement technology that has been shown to be equivalent or more accurate than existing technology
- Procedures that improve test repeatability
- Calculations that simplify emissions determination
- New procedures for field testing engines
- More comprehensive sets of definitions, references, and symbols
- Calibration and accuracy specifications that are scaled to the applicable standard, which allows us to adopt a single specification that applies to a wide range of engine sizes and applications.

We are adopting the lab-testing and field-testing specifications in part 1065 for all locomotive and marine diesel engines. These procedures replace those currently published in parts 92 and 94. We are making a gradual transition from the part 92 and 94 procedures. In general, we specify that manufacturers use the test procedures in 1065 when certifying under part 1033 or 1042. However, we will allow manufacturers to use a combination of the old and new test procedures through 2014, provided such use is done using good engineering judgment. Moreover, manufacturers may continue to rely on carryover test data based on part 92 or 94 procedures to recertify engine families that are not changing.

In the future, we may apply the test procedures specified in part 1065 to other types of engines, so we encourage companies involved in producing or testing other engines to stay informed of developments related to these test procedures.

(b) Revisions to Part 1065

Part 1065 was originally adopted on November 8, 2002 (67 FR 68242) and was initially applicable to standards regulating large nonroad spark-ignition engines and recreational vehicles under 40 CFR parts 1048 and 1051. The test procedures initially adopted in part 1065 were sufficient to conduct testing, but on July 13, 2005 (70 FR 11534) we promulgated a final rule that reorganized these procedures and added content to make various improvements. Today, we are finalizing additional modifications, largely as proposed. The reader is referred to the NPRM, the regulatory text, and the docket for more information about the changes being made to Part 1065 in this final rule. Note that since part 1065 applies for diesel engines subject to parts 86 and 1039, we are also making some minor revisions to those parts to reflect the changes being made to part 1065. (We are also making a technical correction to an equation in § 86.117–96.)

These changes will become effective July 7, 2008. Section 1065.10(c)(6) of the existing regulations includes a provision that automatically allows manufacturers an additional 12 months beyond the effective date to revise their test procedures to comply with the new regulations. Since these changes will not affect the stringency of the standards, we also plan to use our authority under § 1065.10(c)(4) to allow the use of carryover data collected using the earlier procedures.

(2) Certification Fuel

It is well-established that measured emissions may be affected by the properties of the fuel used during the test. For this reason, we have historically specified allowable ranges for test fuel properties such as cetane and sulfur content. These specifications are intended to represent most typical fuels that are commercially available in use. This helps to ensure that the emissions reductions expected from the standards occur in use as well as during emissions testing.

In our previous regulation of in-use locomotive and marine diesel fuel, we established a 15 ppm sulfur standard at the refinery gate for locomotive and marine (LM) diesel fuel beginning June 1, 2012. However, since we intended to allow the sale, distribution, and use of higher sulfur LM diesel fuel (such as contaminated ULSD) to continue indefinitely, we did not set a ''hard and fast'' downstream requirement that only 15 ppm LM diesel may be sold and distributed in all areas of the country . Because refiners cannot intentionally produce off-specification fuel for locomotives, most in-use locomotive and marine diesel fuel will be ULSD (with a sulfur content of 15 ppm or less). Nevertheless, we expect that some fuel will be available with sulfur levels between 15 and 500 ppm, and our existing regulations require that such fuel be designated as 500 ppm sulfur diesel fuel. Note that fuel designated as 500 ppm sulfur is also known as low sulfur diesel fuel (LSD).

Because we have reduced the upper limit for locomotive and marine diesel fuel sulfur content for refiners to 15 ppm in 2012, we are establishing new ranges of allowable sulfur content for diesel test fuels. See section IV.C.(8) for information about testing marine engines designed to use residual fuel. For marine diesel engines, we are specifying the use of ULSD fuel as the test fuel for Tier 3 and later standards. We believe this will correspond to the fuels that these engines will see in use over the long term. We recognize that this approach will mean that some marine engines will use a test fuel that is lower in sulfur than in-use fuel

during the first few years and that other Tier 2 marine engines allowed to be produced after 2012 will use a test fuel that is higher in sulfur than fuel already available in use when they are produced. However, we believe that it is more important to align changes in marine test fuels with changes in the PM standards than strictly with changes in the in-use fuel. Nevertheless, we are allowing Tier 2 certification with fuel meeting the 7 to 15 ppm sulfur specification to simplify testing but will require that PM emissions be corrected to be equivalent to testing conducted with the specified fuel. This will ensure that the effective stringency of the Tier 2 standards will not be affected.

For locomotives, we will require that Tier 4 engines be certified based on ULSD test fuels. We are also requiring that these locomotives use ULSD in the field. We will continue to allow the use of 500 ppm LM diesel fuel, in older locomotives in the field.[157] Thus, we are requiring that remanufacture systems for Tier 0 and Tier 1 locomotives be certified on LSD test fuel. We are allowing the use of test fuels other than those specified here. Specifically, we will allow the use of ULSD during emission testing for locomotives otherwise required to use LSD, provided they do not use sulfur-sensitive technology (such as oxidation catalysts). However, as a condition of this allowance, the manufacturer will be required to add an additional amount to the measured PM emissions to make them equivalent to what would have been measured using LSD. For example, we will allow a manufacturer to test with ULSD if they adjusted the measured PM emissions upward by 0.01 g/bhp-hr (which would be a relatively conservative adjustment and would ensure that manufacturers would not gain an inappropriate advantage by testing on ULSD).

We are adopting special fuel provisions for Tier 3 locomotives and Tier 2 locomotive remanufacture systems. The final regulations specify that the test fuel for these be ULSD without sulfur correction since these locomotives will use ULSD in use for most of their service lives. However, unlike Tier 4 locomotives, we will not require them to be labeled to require the use of ULSD, unless they included sulfur sensitive technology.

We are adopting a new flexibility for locomotives and Category 2 marine engines to reduce fuel costs for testing. Because these engines can consume 200 gallons of diesel fuel per hour at full load, fuel can represent a significant fraction of the testing cost, especially if the manufacturer must use specially blended fuel rather than commercially available fuel. To reduce this cost, we will allow manufacturers to immediately begin testing of locomotives and Category 2 marine engines with commercially available diesel fuel. We do not believe that this will change the effective stringency of the standards.

For both locomotive and marine engines, all of the specifications described above will apply to emission testing conducted for certification, production-line testing, and in-use, as well as any other testing for compliance purposes for engines in the designated model years. Any compliance testing of previous model year engines will be done with the fuels designated in our regulations for those model years.

(3) Supplemental Emission Standards

We are continuing the supplemental emission standards for locomotives and marine engines. For locomotives, this means we will continue to apply notch emission caps, based on the emission rates in each notch, as measured during certification testing. We recognize that for our Tier 4 standards it will not be practical to measure very low levels of PM emissions separately for each notch during testing, and thus we are changing the calculation of the PM notch cap for Tier 4 locomotives. All other notch caps will be determined and applied as they currently are under 40 CFR 92.8(c). See § 1033.101(e) of the regulations for the detailed calculation.

Marine engines will continue to be subject to not-to-exceed (NTE) standards; however, we are making certain changes to these standards based upon our understanding of in-use marine engine operation and based upon the underlying Tier 3 and Tier 4 duty cycle emissions standards. As background, we determine NTE compliance by first applying a multiplier to the duty-cycle emission standard, and then we compare to that value an emissions result that is recorded when an engine runs within a certain range of engine operation. This range of operation is called an NTE zone (see 40 CFR 94.106). The first regulation of ours that included NTE standards was the commercial marine diesel regulation, finalized in 1999. After we finalized that regulation, we promulgated other NTE regulations for both heavy-duty on-highway and nonroad diesel engines. We also finalized a regulation that requires heavy-duty on-highway engine manufacturers to conduct field testing to demonstrate in-use compliance with the on-highway NTE standards. Throughout our development of these other regulations, we have learned many details about how best to specify NTE zones and multipliers that will ensure the greatest degree of in-use emissions control, while at the same time will avoid disproportionately stringent requirements for engine operation that has only a minor contribution to an engine's overall impact on the environment. Based upon the Tier 3 and Tier 4 standards—and our best information of in-use marine engine operation—we are making certain improvements to our marine NTE standards.

For marine engines we are broadening the NTE zones in order to better control emissions in regions of engine operation where an engine's emissions rates (i.e. grams/hour, tons/day) are greatest; namely at high engine speed and high engine load. This is especially important for commercial marine engines because they typically operate at steady-state at high-speed and high-load operation. This change also will make our marine NTE zones much more similar to our on-highway and nonroad NTE zones. Additionally, we analyzed different ways to define the marine NTE zones, and we determined a number of ways to improve and simplify the way we define and calculate the borders of these zones. We feel that these improvements will help clarify when an engine is operating within a marine NTE zone.

Note that we specify different duty cycles to which a marine engine may be certified, based upon the engine's specific application (e.g., fixed-pitch propeller, controllable-pitch propeller, constant speed, auxiliary, etc.). These duty cycles are described below in section IV.C.(9). Correspondingly, we also have a unique NTE zone for each of these duty cycles. These different NTE zones are intended to best reflect an engine's real-world range of operation for that particular application. One primary change in the NTE zones, compared to the NPRM, is for controllable-pitch propeller applications. Rather than using the nonroad NTE zone, as proposed, the final NTE zone for these engines has been revised to better reflect marine engine operation. Please refer to section 1042.101(c) of the new regulations for a description of our new NTE standards. In the cases where marine auxiliary engines use the same duty cycle as their land-based nonroad counterparts, we

[157] Under our existing fuel regulations (40 CFR 80.510(g)), 500 ppm LM diesel fuel may not be sold and/or distributed in the Northeast/Mid-Atlantic (NE/MA) area beginning October 1, 2012. Such fuel may no longer be used in the NE/MA area beginning December 1, 2012.

are adopting the same NTE standards as we have already finalized for nonroad engines in 40 CFR § 1039.101. As the standards for marine diesel engines under 75 kW are based on the corresponding nonroad engine standards, we are aligning the NTE standard start dates for these engines with the nonroad engine NTE start dates in 2012 and 2013.

We are also implementing new NTE multipliers. We have analyzed how the Tier 3 and Tier 4 emissions standards affect the stringency of the marine NTE standards, especially in comparison to the stringency of the underlying duty cycle standards. We recognized that in certain sub-regions of our new NTE zones, slightly higher multipliers are necessary because of the way that our more stringent Tier 3 and Tier 4 emissions standards will affect the stringency of the NTE standards. For comparison, Tier 2 marine NTE standards contain multipliers that range in magnitude from 1.2 to 1.5 times the corresponding duty cycle standard. The new multipliers range from 1.2 to 1.9 times the standard. Even with these slightly higher NTE multipliers, we are confident that our changes to the marine NTE standards will ensure the greatest degree of in-use emissions control. We are also confident that our changes to the marine NTE standards will continue to ensure proportional emissions reductions, across the full range of marine engine operation.

We are also adopting other NTE provisions for marine engines that are similar to our existing heavy-duty on-highway and nonroad diesel NTE standards. We are making these particular changes to account for the implementation of catalytic exhaust treatment devices on marine engines. One such provision is to account for when a marine engine rarely operates within a limited region of the NTE zone (i.e. less than 5 percent of in-use operation). Another provision allows small deficiencies in NTE compliance for a limited period of time. We feel that these provisions have been effective in our on-highway and nonroad NTE programs; therefore, we are adopting them for our marine NTE standards as well.

(4) Emission Control Diagnostics

We requested comment on a requirement that all Tier 4 engines include a simple engine diagnostic system to alert operators to general emission-related malfunctions. As is described in the S&A document, we are not adopting such general requirements today. (See section 0 of this Final Rule for related requirements involving SCR systems.) We are, however, adopting special provisions for locomotives that include emission related diagnostics. First, we will require locomotive operators to respond to malfunction indicators by performing the required maintenance or inspection. Second, locomotive manufacturers will be allowed to repair such malfunctioning locomotives during in-use compliance testing (they would still be required to include a description of the malfunction in the in-use testing report.). This approach takes advantage of the unique market structure with two major manufacturers and only a few railroads buying nearly all of the freshly manufactured locomotives. These provisions create incentives for both the manufacturers and railroads to work together to develop a diagnostic system that would effectively reveal real emission malfunctions. Our current regulations already require that locomotive operators complete all manufacturer-specified emission-related maintenance, and this new requirement treats repairs indicated by diagnostic systems as such emission-related maintenance. Thus, the railroads will have a strong incentive to make sure that they only have to perform this additional maintenance when real malfunctions are occurring. On the other hand, manufacturers will want to have all emission malfunctions revealed so that when they test an in-use locomotive they can repair identified malfunctions before testing if the railroad has not yet done it.

(5) Monitoring and Reporting of Emissions Related Defects

We are applying the defect reporting requirements of § 1068.501 to replace the provisions of subparts E in parts 92 and 94. This will result in two significant changes for manufacturers. First, § 1068.501 obligates manufacturers to tell us when they learn that emission control systems are defective and to conduct investigations under certain circumstances to determine if an emission-related defect is present. Second, it changes the thresholds after which they must submit defect reports. See the text 40 CFR 1068.501 for details about this requirement.

(6) Rated Power

We are specifying in parts 1033 and 1042 how to determine maximum engine power in the regulations for both locomotives and marine engines. The term ''maximum engine power'' will be used for marine engines instead of previously undefined terms such as ''rated power'' or ''power rating'' to specify the applicability of the standards. The addition of this definition is intended to allow for more objective applicability of the standards. More specifically, for marine engines, we define maximum engine power to mean the maximum brake power output on the nominal power curve for an engine.

For locomotives, the term ''rated power'' will continue to be used, but is explicitly defined to be the brakepower of the engine at notch 8. We will continue to use the term ''rated power'' because this definition is consistent with the commercial meaning of the term.

(7) In-Use Compliance for SCR Operation

As discussed in section III.C, we are projecting that manufacturers will use urea-based SCR systems to comply with the Tier 4 emission standards.[158] These systems are very effective at controlling $NO_X$ emissions as long as the operator continues to supply urea of acceptable quality. Thus we considered concepts put forward by manufacturers in other mobile source sectors in dealing with this issue. These include design features to prevent an engine from being operated without urea if an operator ignores repeated warnings and allows the urea level to run too low. EPA has issued a guidance document for urea SCR systems discussing the use of such features on highway diesel vehicles.

We believe that the nature of the locomotive and large commercial marine sectors supports a different in-use compliance approach. This approach focuses on requirements for operators of locomotives and marine diesel engines that depend on urea SCR to meet EPA standards, aided by onboard alarm and logging mechanisms that engine manufacturers will be required to include in their engine designs. Except in the rare instance that operation without urea may be necessary, the regulatory provisions put no burden on the end-user beyond simply filling the urea tank with appropriate quality urea. Specifically, we are specifying:

- That it is illegal to operate without acceptable quality urea when the urea is needed to keep the SCR system functioning properly;
- That manufacturers must include clear and prominent instructions to the operator on the need for, and proper steps for, maintaining urea, including a

[158] The provisions described in this section will apply equally to SCR systems using reductants other than urea, except for systems using normal diesel fuel as the reductant.

statement that it is illegal to operate the engine without urea;

- That manufacturers must include visible and audible alarms at the operator's console to warn of low urea levels or inadequate urea quality;
- That engines and locomotives must be designed to track and log, in nonvolatile computer memory, all incidents of engine operation with inadequate urea injection or urea quality; and
- That operators must report to EPA in writing any incidence of operation with inadequate urea injection or urea quality within 30 days of each incident, and
- That, when requested, locomotive and vessel operators must provide EPA with access to, and assistance in obtaining information from, the electronic onboard incident logs.

We understand that in extremely rare circumstances, such as during a temporary emergency involving risk of personal injury, it may be necessary to operate a vessel or locomotive without adequate urea. We would intend such extenuating circumstances to be taken into account when considering what penalties or other actions are appropriate as a result of such operation. The information from SCR compliance monitoring systems described above may also be useful for state and local air quality agencies and ports to assist them in any marine engine compliance programs they implement.

Our new regulations specify that what constitutes acceptable urea solution quality be specified by the manufacturers in their maintenance instructions and require that the certified emission control system must meet the emissions standards with any urea solution within stated specifications. This could be facilitated by an industry standard for urea quality, which we expect will be generated in the future as these systems move closer to market. We recognize that this will likely require automated sensing of some characteristic indicator such as urea concentration or exhaust $NO_X$ concentration.

We believe these provisions can be an effective tool in ensuring urea use for locomotives and large commercial marine vessels because of the relatively small number of railroads and operators of large commercial vessels in the U.S., especially considering that the number of SCR-equipped locomotives and vessels will ramp up quite gradually over time. In-use compliance provisions of the sort we are adopting for locomotives and large commercial marine engines would be much less effective in other mobile source sectors such as highway vehicles because successful enforcement involving millions of vehicle owners would be extremely difficult. In addition, the highway and nonroad diesel sectors are characterized by a wide variety of applications and duty cycles, which further differentiate in-use compliance approaches that may make sense in the relatively uniform rail and marine sectors from those that would be effective in the highway and nonroad sectors.

(8) Temporary In-Use Compliance Margins

Consistent with the approach we took in the highway heavy-duty rule (66 FR 5113) and nonroad diesel rule (69 FR 38957), we are adopting a provision for in-use compliance flexibility in the initial years of the Tier 4 program. We proposed to allow adjusted in-use compliance standards for the first three model years of the Tier 4 locomotive standards to help assure the manufacturers that they will not face recall if they exceed standards by a small amount during this transition to advanced clean diesel technologies.

Commenters suggested that the reasons we gave for applying this provision to locomotives were valid for marine engines too. We agree and are extending this provision to Tier 4 marine diesel engines. Commenters also argued that we over-emphasized the flexibility needed for $NO_X$ technology compared to PM technology. In response, we have concluded that it is appropriate to provide an alternative set of margins available to manufacturers willing to accept more stringent in-use compliance levels for $NO_X$ in exchange for somewhat less stringent levels for PM.

Table IV–1 shows the in-use adjustments that we will apply. These adjustments would be added to the appropriate standards or FELs in determining the in-use compliance level for a given in-use hours accumulation. Our intent is that these add-on levels be available only for highly-effective advanced technologies such as particulate traps and SCR, and so we will apply them only to engines certified at or below the Tier 4 standards without the use of credits, through the first three model years of the new standards. As part of the certification process, manufacturers will still be required to demonstrate compliance with the unadjusted Tier 4 certification standards using deteriorated emission rates. Therefore manufacturers will not be able to use these in-use adjustments in setting design targets for the engine. They need to project that engines will meet the standards in use without adjustment. The in-use adjustments merely provide some assurance that they will not be forced to recall engines because of some small miscalculation of the expected deterioration rates.

Also, to avoid what would essentially be a doubling up of the benefits of the two alternatives, contrary to their purpose, we are requiring that a manufacturer may only use the alternative set of add-ons for an engine family if this choice is indicated in the certification application and may not reverse this choice in carry-over certifications or certifications by design.

TABLE IV–1.—IN-USE ADD-ONS (g/bhp-hr)

| For useful life fractions | Primary set | | Alternative set | |
|---|---|---|---|---|
| | $NO_X$ | PM | $NO_X$ | PM |
| <50% UL | 0.7 | ..... | 0.2 | |
| 50%–75% UL | 1.0 | 0.01 | 0.3 | 0.03 |
| >75% UL | 1.3 | ..... | 0.4 | |

As discussed in section III.B(1)(a)(ii), in response to industry comments, we are providing another Tier 4 $NO_X$ compliance option for line-haul locomotives with a reduced in-use $NO_X$ add-on of 0.6 g/bhp-hr. Under this option, for the first 8 model years of Tier 4 (2015–2022), a line-haul locomotive manufacturer may certify a locomotive to the 1.3 g/bhp-hr $NO_X$ standard without needing to calculate or apply a deterioration factor. These locomotives, when tested in-use, must comply with an in-use standard of 1.9 g/bhp-hr but

do not get the additional $NO_X$ compliance margins discussed above.

Because this option is meant to address manufacturer concerns about manufacturing variability as well as catalyst durability, we are allowing manufacturers using this option to substitute an in-use locomotive test for each required production line test. These tests must be conducted on locomotives with more than 50 hours of accumulated operation, but at less than one-half of their useful life, and are in addition to normally-required manufacturer in-use testing. Furthermore, locomotives certified under this option may not generate credits under the ABT program because of their potentially higher in-use emissions. Also, of course, they may not be purposely designed to emit regulated pollutants at higher levels in use than at certification. This option will be available through the 2022 model year. It will not be available for the 2015–2022 model year locomotives when they are remanufactured in 2023 or later.

(9) Fuel Labels and Misfueling

The advanced emission controls that will be used to comply with many of the new standards will require the use of ULSD. Therefore, we are requiring that manufacturers notify each purchaser of a Tier 4 locomotive or marine engine that it must be fueled only with the ultra low-sulfur diesel fuel meeting our regulations. We are also applying this requirement for locomotives and engines having sulfur-sensitive technology and certified using ULSD. All of these locomotives and vessels must be labeled near the refueling inlet to say: ''Ultra-Low Sulfur Diesel Fuel Only''. These labels are required to be affixed or updated any time any engine on a vessel is replaced after the new program goes into effect.

We are requiring the use of ULSD in locomotives and vessels labeled as requiring such use, including all Tier 4 locomotives and marine engines. More specifically, use of the wrong fuel for locomotives or marine engines would be a violation of 40 CFR 1068.101(b)(1) because use of the wrong fuel would have the effect of disabling the emission controls.

We addressed the supply of ultra-low sulfur fuel in our previous regulation of in-use locomotive and marine diesel fuel. Specifically, we established a 15 ppm sulfur standard at the refinery gate for locomotive and marine (LM) diesel fuel beginning June 1, 2012. However, since we allow the sale, distribution, and use of 500 ppm LM diesel fuel to continue indefinitely, we did not set a ''hard and fast'' downstream requirement that only 15 ppm LM diesel may be sold and distributed in all areas of the country.[159] This was to allow the LM diesel fuel pool to remain an outlet for off-specification distillate product and interface/transmix material. Because refiners cannot intentionally produce off-specification fuel for locomotives—refiners will no longer be able to produce nonroad, locomotive, or marine diesel fuel above 15 ppm beginning June 1, 2012—most in-use locomotive and marine diesel fuel will be ULSD (with a sulfur content of 15 ppm or less). Nevertheless, we expect that some fuel will be available with sulfur levels between 15 and 500 ppm, and our regulations require such fuel to be designated as 500 ppm sulfur diesel fuel.

We received comments regarding the fact that we did not set a strict downstream requirement on the use of 15 ppm LM for the entire country. The commenters feared that while a port might receive deliveries of 15 ppm LM fuel, the port might keep its pump labeled as ''500 ppm LM'' to allow it to receive and dispense either 15 ppm or 500 ppm LM. (As part of the diesel fuel regulations, all pumps dispensing diesel fuel must be labeled with the type and maximum sulfur level of the diesel fuel being dispensed.) The commenters were concerned that if such practice were widespread, marine vessels that require ULSD could potentially have problems finding it.

We understand the commenters' concerns and have discussed a few potential solutions to this problem. One possible option is to require large ports (i.e., ports over some certain size) to make 15 ppm LM diesel fuel available. This size requirement could be by volume of single sale or above some other specified volume. Under this requirement, those ports with multiple tanks could continue to offer 500 ppm LM diesel fuel in addition to the 15 ppm LM diesel fuel. Or, if a port (regardless of size) continues to sell 500 ppm LM diesel fuel, it must also sell 15 ppm LM diesel fuel. Another potential option would be to limit the sale of 500 ppm LM diesel fuel to small ports and locomotives only. However, these potential solutions would need to be discussed thoroughly with all stakeholders (including those in the fuel distribution and marketing industry) and put out for notice and comment. Therefore, we are merely noting potential solutions in this final rule but we are committing to investigate this issue further and, if the facts warrant doing so, addressing it in a separate action.

(10) Deterioration Factor Plan Requirements

In this rulemaking, we are amending our deterioration factor (DF) provisions to include an explicit requirement that DF plans be submitted by manufacturers for our approval in advance of conducting engine durability testing, or in the case where no new durability testing is being conducted, in advance of submitting the engine certification application. We are not fundamentally changing either the locomotive or marine engine DF requirements with this provision, other than to require advance approval.

An advance submittal and approval format will allow us sufficient time to ensure consistency in DF procedures, without the need for manufacturers to repeat any durability testing or for us to deny an application for certification should we find the procedures to be inconsistent with the regulatory provisions. We expect that the DF plan would outline the amount of service accumulation to be conducted for each engine family, the design of the representative in-use duty cycle on which service will be accumulated, and the quantity of emission tests to be conducted over the service accumulation period.

(11) Production Line Testing

We proposed to continue the existing production line testing provisions that apply to manufacturers. Some manufacturers suggested that we should eliminate this requirement on the basis that very low noncompliance rates are being detected at a high expense. While we agree that compliance rates have been very good, we do not agree that they mean that the program has little or no value. As we move toward more stringent emission standards with this rulemaking, we anticipate that the margin of compliance with the standards for these engines is likely to decrease. Consequently, this places an even greater significance on the need to ensure little variation in production engines from the certification engine, which is often a prototype engine. For this reason, it is important to maintain our production line testing program.

However, the existing regulations allow manufacturers to develop alternate programs that provide equivalent assurance of compliance on the production line and to use such programs instead of the specified

[159] However, in the Northeast/Mid-Atlantic (NE/MA) area, as defined at 40 CFR 80.510(g), 500 ppm LM diesel fuel may no longer be sold and/or distributed beginning October 1, 2012. Such fuel may no longer be used in the NE/MA area beginning December 1, 2012.

production line testing program. For example, given the small sales volumes associated with marine engines it may be appropriate to include a production verification program for marine engines as part of a manufacturer's broader production verification programs for its non-marine engines. We believe these existing provisions already address the concerns raised to us by the manufacturers.

We are adding provisions to allow manufacturers to use special procedures for production line testing of catalyst-equipped engines. Under the existing Part 92 and Part 94 programs, a manufacturer of a catalyst-equipped locomotive or Category 2 marine engine would be required to assemble and test the engine with a complete catalyst system. At the manufacturer's choice, the engine could be broken in by operating it for up to 300 hours or it could be tested in a ''green'' state and its measured emissions adjusted by applying ''green engine factors''. The new regulations in Parts 1033 and 1042 will continue to allow these options, but will also include additional options.

For locomotives, the new regulations will allow a locomotive to be used in service for up to 1,000 hours before it is tested. This will be sufficient time to degreen a catalyst. We believe that this approach should work well for locomotives given the very close working relationships between the manufacturers and the major railroads. (See section IV.A.(8) for additional interim provisions related to production-line testing of locomotives.)

We do not believe this locomotive approach would work for marine engines because the marine market is much more diverse and the very close working relationships cannot be assumed. Therefore, we will rely on our general authority to approve alternate PLT programs. Should a consensus develop in the future about how to appropriately verify that engines and catalysts are produced to conform to the regulations, we may adopt specific regulatory provisions to address these marine engines.

(12) Evaporative Emission Requirements

While nearly all locomotives currently subject to part 92 are fueled with diesel fuel, § 92.7 includes evaporative emission provisions that would apply for locomotives fueled by a volatile liquid fuel such as gasoline or ethanol. These regulations do not specify test procedures or specific numerical limits, but rather set ''good engineering'' requirements. We are adopting these same requirements in part 1033.

We are also adopting similar requirements for marine engines and vessels that run on volatile fuels. We are not aware of any compression-ignition marine engines currently being produced that would be subject to these requirements but believe that it is appropriate to adopt these requirements now rather than waiting until such engines are produced. In this final rule, we are adopting requirements for controlling evaporative emissions that are identical to those for locomotives. As described in the proposal, we intend to apply to compression-ignition marine engines and vessels the same requirements we will be adopting for spark-ignition engines and vessels before the end of 2008 (as proposed at 72 FR 28098). We therefore intend to modify part 1042 in the final rule corresponding to that proposal related to spark-ignition marine engines and vessels. Specifically, if someone were to build a marine vessel with a compression-ignition engine that runs on a volatile liquid fuel, the engine would be subject to the exhaust emission standards of part 1042, but the fuel system would be subject to the evaporative emission requirements of the recently proposed part 1045.[160]

(13) Small Business Provisions

There are a number of small businesses that will be subject to this rule because they are locomotive manufacturers/remanufacturers, railroads, marine engine manufacturers, post-manufacture marinizers, vessel builders, or vessel operators. We largely continue the existing provisions that were adopted previously for these small businesses in the 1998 Locomotive and Locomotive Engines Rule (April 16, 1998; 63 FR 18977); our 1999 Commercial Marine Diesel Engines Rule (December 29, 1999; 64 FR 73299) and our 2002 Recreational Diesel Marine program (November 8, 2002; 67 FR 68304). These provisions, which are discussed below, are designed to minimize regulatory burdens on small businesses needing added flexibility to comply with emission standards while still ensuring the greatest emissions reductions achievable. (See section IX.C of this rule for discussion of our outreach efforts with small entities.)

(a) Locomotive Sector

(i) Production-Line and In-Use Testing Does not Apply

Production-line and in-use testing requirements do not apply to small locomotive manufacturers until January 1, 2013, which is up to five calendar years after this program becomes effective.

In the 1998 Locomotive Rule (April 16, 1998; 63 FR 18977), the in-use testing exemption was provided to small remanufacturers with locomotives or locomotive engines that became new during the 5-year delay, and this exemption was applicable to these locomotives or locomotive engines for their entire useful life (the exemption was based on model years within the delay period, but not calendar years as we are promulgating today). As an amendment to the existing in-use testing exemption, small remanufacturers with these new locomotives or locomotive engines must now begin complying with the in-use testing requirements after the five-year delay on January 1, 2013 (exemption based on calendar years). Thus, they are no longer exempt from in-use testing for the entire useful life of a locomotive or a locomotive engine. We are finalizing this provision to ensure that small remanufacturers comply with our standards in-use, and subsequently, the public is assured they are receiving the air quality benefits of today's standards. In addition, this amendment provides a date certain for small remanufacturers when in-use testing requirements begin to apply.

We received a number of comments asking us to clarify whether or not we were still planning to require production-line audits or verification for small locomotive remanufacturers during this 5-year delay (until January 1, 2013). In response, we are clarifying that we did not intend to exempt small locomotive remanufacturers from production-line audits during the 5-year delay (our intent was to exempt these entities from production-line and in-use testing requirements). We believe this requirement is of minimal regulatory burden to small locomotive remanufacturers. Moreover, we have clarified the general auditing regulations to explicitly allow audits to be conducted by the owner/operator, which further minimizes the burden.

(ii) Class III Railroads Exempt From New Standards for Existing Fleets

EPA is limiting the category of small railroads which are exempt from the Tier 0, 1 and 2 remanufacturing requirements for existing fleets to those railroads that qualify as Class III railroads and that are not owned by a large parent company. Under the current Surface Transportation Board classification system, this exemption is limited to railroads having total revenue less than $25.5 million per year. This change requires that all Class II

[160] Part 1045 was proposed on May 18, 2007 (72 FR 28097).

railroads, when remanufacturing their locomotives, meet the new standards finalized for existing fleets.

EPA had requested comment on whether the small railroads exemption from emissions standards for existing fleets had been effective and appropriate and whether they should continue under the new program finalized today. Under part 92, only railroads qualifying as ''large'' businesses, as defined by the Small Business Administration (SBA) were subject to the standards for their pre-existing fleet. The SBA definition of a large railroad is based on employment. For line-haul railroads the threshold is 1,500 or more employees, and for short-haul railroads it is 500 or more employees. Additionally, any railroad owned by a parent company that is large by SBA definition is also subject to the current existing fleet requirements. Although this excludes a majority of the more than 500 U.S. freight railroads, it addresses the vast majority of the emissions because it includes all Class I railroads.

The majority of comments supported revising the criterion for exempting railroads from emissions standards for existing fleets. While some of these commenter's felt that a revenue based approach exempting Class III railroads was appropriate, others disagreed, and argued that all railroads, regardless of classification or revenues should be subject to the new emission standards for existing fleets. These commenters felt no exemption would be legitimate because of both the extremely long operational life of these locomotive engines and the predominance of Class II and III railroads in various nonattainment areas of the country which contribute to air quality problems. Those commenters opposing any change to the existing exemption scheme argued that the current approach of exempting all small railroads should be retained because the costs involved in meeting new standards for existing fleets would impose a heavy financial burden on small railroads currently exempt from the program. Additionally, these commenters argued that small railroads' emissions are trivial and do not impact air quality.

In finalizing this new approach, EPA believes that continuing to exempt Class III railroads with annual revenues under $25.5 million while including all Class II railroads in the existing fleet program is a reasonable approach that addresses both industry concerns regarding costs while also recognizing that small railroads do contribute to air pollution in areas they service including nonattainment areas throughout the U.S.

We are clarifying our definition that intercity passenger or commuter railroads are not included as railroads that are small businesses because they are typically governmental or are large businesses. Due to the nature of their business, these entities are largely funded through tax transfers and other subsidies. Thus, the only passenger railroads that could qualify for the small railroad provisions will be small passenger railroads related to tourism.

(iii) Small Railroads Excluded From In-Use Testing Program

The railroad in-use testing program continues to apply to Class I freight railroads only, and thus no small railroads are subject to this testing requirement. It is important to note many Class II and III freight railroads qualify as small businesses. This provision provides flexibility to all Class II and III railroads, which includes small railroads. All Class I freight railroads are large businesses.[161]

(iv) Hardship Provisions

Section 1068.245 of the existing regulations in title 40 contains hardship provisions for engine and equipment manufacturers, including those that are small businesses. We will apply this section for locomotives as described below.

Under the unusual circumstances hardship provision, locomotive manufacturers may apply for hardship relief if circumstances outside their control cause their failure to comply and if the failure to sell the subject locomotives will have a major impact on the company's solvency. An example of an unusual circumstance outside a manufacturer's control may be an ''Act of God,'' a fire at the manufacturing plant, or the unforeseen shut down of a supplier with no alternative available. The terms and time frame of the relief depend on the specific circumstances of the company and the situation involved. As part of its application for hardship, a company is required to provide a compliance plan detailing when and how it will achieve compliance with the standards.

(b) Marine Sector

(i) Revised Definitions of Small-Volume Manufacturer and Small-Volume Boat Builder

As proposed, we are revising the definitions of small-volume manufacturer (SVM) and small-volume boat builder to include worldwide production. Currently, an SVM is defined as a manufacturer with annual U.S.-directed production of fewer than 1,000 engines (marine and nonmarine engines), and a small-volume boat builder is defined as a boat manufacturer with fewer than 500 employees and with annual U.S.-directed production of fewer than 100 boats. By including worldwide production in these definitions, we prevent a manufacturer or boat builder with a large worldwide production of engines or boats, or a large worldwide presence, from receiving relief from the requirements of this program. The provisions that apply to small-volume manufacturers and small-volume boat builders as described below are intended to minimize the impact of this rule for those entities that do not have the financial resources to quickly respond to requirements in the rule.

(ii) Broader Engine Families and Testing Relief

*Broader engine families:* We are finalizing as proposed the provision that post-manufacture marinizers (PMMs) and SVMs be allowed to continue to group all commercial Category 1 engines into one engine family for certification purposes, all recreational engines into one engine family, and all Category 2 engines into one family. As with existing regulations, these entities are responsible for certifying based on the ''worst-case'' emitting engine. This approach minimizes certification testing because the marinizer and SVMs can use a single engine in the first year to certify their whole product line. In addition, marinizers and SVMs may then carry over data from year to year until changing engine designs in a way that might significantly affect emissions.

As described in the proposal, this broad engine family provision still requires a certification test and the associated burden for small-volume manufactures. We realize that the test costs are spread over low sales volumes, and we recognize that it may be difficult to determine the worst-case emitter without additional testing but we need a reliable, test-based, technical basis to issue a certificate for these engines. However, manufacturers will be able to use carryover test data to spread costs over multiple years of production.

*Production-line and deterioration testing:* In addition, as proposed, SVMs producing engines less than or equal to 600 kW (800 hp) are exempted from production-line and deterioration testing for the Tier 3 standards. We will assign a deterioration factor for use in

[161] U.S. EPA, Assessment and Standards Division, Memorandum from Chester J. France to Alexander Cristofaro of U.S. EPA's Office of Policy, Economics, and Innovation, Locomotive and Marine Diesel RFA/SBREFA Screening Analysis, September 25, 2006.

calculating end-of-useful life emission factors for certification. This approach minimizes compliance testing since production-line and deterioration testing is more extensive than a single certification test. As described in the proposal, Tier 3 standards for these engines are not expected to require the use of aftertreatment—similar to the existing Tier 1 and Tier 2 standards. The Tier 4 standards for engines greater than 600 kW are expected to require aftertreatment emission-control devices. Currently, we are not aware of any SVMs that produce engines greater than 600 kW, except for one marinizer that plans to discontinue their production in the near future.[162]

We are finalizing provisions that require SVMs to undertake production-line and deterioration testing in the future if they begin producing these larger engines due to the sophistication of manufacturers that produce engines with aftertreatment technology. We believe these manufacturers will have the resources to conduct both the design and development work for the aftertreatment emission-control technology, along with production-line and deterioration testing.

(iii) Delayed Standards

*One-year delay:* As described in the proposal, post-manufacture marinizers (PMMs) generally depend on engine manufacturers producing base engines for marinizing. This can delay the certification of the marinized engines. There may be situations in which, despite its best efforts, a marinizer cannot meet the implementation dates, even with the provisions described in this section. Such a situation may occur if an engine supplier without a major business interest in a marinizer were to change or drop an engine model very late in the implementation process or was not able to supply the marinizer with an engine in sufficient time for the marinizer to recertify the engine. Based on this concern, we are finalizing as proposed to allow a one-year delay in the implementation dates of the Tier 3 standards for post-manufacture marinizers qualifying as small businesses (the definition of small business, not SVM, used by EPA for these provisions for manufacturers of new marine diesel engines—or other engine equipment manufacturing—is 1,000 or fewer employees; as defined by the Small Business Administration's (SBA) regulations at 13 CFR 121.201) and producing engines less than or equal to 600 kW (800 hp).

As described above and in the proposal, the Tier 4 standards for engines greater than 600 kW (800hp) are expected to require aftertreatment emission-control devices. We will not apply this one-year delay to small PMMs that begin marinizing these larger engines in the future due to the sophistication of entities that produce engines with aftertreatment technology. We expect that the large base engine manufacturer (with the needed resources), not the small PMM, will conduct both the design and development work for the aftertreatment emission-control technology and that they will also take on the certification responsibility in the future. Thus, the small PMM marinizing large engines will not need a one-year delay.

*Three-year delay for not-to-exceed (NTE) requirements:* As described in the proposal, additional lead time is also appropriate for PMMs to demonstrate compliance with NTE requirements. Their reliance on another company's base engines affects the time needed for the development and testing work needed to comply. Thus, as proposed, PMMs qualifying as small businesses and producing engines less than or equal to 600 kW (800hp) may also delay compliance with the NTE requirements by up to three years, for the Tier 3 standards. Three years of extra lead time (compared to one year for the primary certification standards) is appropriate considering their more limited resources. As described above and in the proposal, the Tier 4 standards for engines greater than 600 kW are expected to require aftertreatment emission-control devices. We do not apply this three-year delay to small PMMs that begin marinizing these larger engines in the future due to the sophistication of entities that produce engines with aftertreatment technology. We expect that the large base engine manufacturer (with the needed resources), not the small PMM, will conduct both the design and development work for the aftertreatment emission-control technology and that they will also take on the certification responsibility in the future. Thus, the small PMM marinizing large engines does not need a three-year delay for compliance with the NTE requirements.

*Five-year delay for recreational engines:* For recreational marine diesel engines, the existing regulations (2002 Recreational Diesel Marine program; November 8, 2002, 67 FR 68304) allow small-volume manufacturers up to a five-year delay for complying with the standards. However, as proposed, we will not continue this provision. As discussed above and in the proposal, the Tier 3 standards for these engines are expected to be engine-out standards which do not require the use of aftertreatment—similar to the existing Tier 1 and Tier 2 standards. The Tier 4 standards will not apply to recreational engines. Also, Tier 3 engines are expected to require far less in terms of new hardware, and in fact, are expected to only require upgrades to existing hardware (i.e., new fuel systems). In addition, manufacturers have experience with engine-out standards from the existing Tier 1 and Tier 2 standards, and thus, they have learned how to comply with such standards. Thus, small-volume manufacturers of recreational marine diesel engines do not need more time to meet the new standards. For small PMMs of recreational marine diesel engines, the one-year delay described earlier will provide enough time for these entities to meet today's standards.

(iv) Engine Dressing Exemption

We are finalizing as proposed that marine engine dresser will continue to be exempt from certification and compliance requirements. As described in the proposal, many marine diesel engine manufacturers take a new, land-based engine and modify it for installation on a marine vessel. Some of these companies modifying an engine make no changes that might affect emissions. Instead, the modifications may consist of adding mounting hardware and a generator or reduction gears for propulsion. It can also involve installing a new marine cooling system that meets original manufacturer specifications and duplicates the cooling characteristics of the land-based engine but with a different cooling medium (such as sea water). In many ways, these manufacturers are similar to nonroad equipment manufacturers that purchase certified land-based nonroad engines to make auxiliary engines. This simplified approach of producing an engine can more accurately be described as dressing an engine for a particular application. As indicated above, engine dressers make changes to an engine without affecting the emission characteristics of the engine, which would include modifications that do not affect aftertreatment emission-control devices or systems (as stated earlier, Tier 4 standards for engines greater than 600 kW (800 hp) are expected to require aftertreatment).

Because the modified land-based engines are subsequently used on a marine vessel, however, these modified engines are considered marine diesel

[162] U.S. EPA, Assessment and Standards Division, Memorandum from Chester J France to Alexander Cristofaro of U.S. EPA's Office of Policy, Economics, and Innovation, Locomotive and Marine Diesel RFA/SBREFA Screening Analysis, September 25, 2006.

engines, which then fall under these requirements. As described in the proposal, while we continue to consider them to be manufacturers of a marine diesel engine, they are not be required to obtain a certificate of conformity (as long as they ensure that the original label remains on the engine and report annually to EPA that the engine models that are exempt pursuant to this provision). This extends section 94.907 of the existing regulations. For further details of engine dressers responsibilities see section 1042.605 of the regulations.

(v) Vessel Builder Provisions

Current recreational marine engines regulations (2002 Recreational Diesel Marine program; November 8, 2002, 67 FR 68304) allow manufacturers with a written request from a small-volume boat builder to produce a limited number of uncertified engines (over a five year period)—an amount equal to 80 percent of the boat builders sales for one year. For builders with very small production volumes, this 80 percent allowance could be exceeded, as long as sales did not exceed 10 engines in any one year nor 20 total engines over five years and applied only to engines less than or equal to 2.5 liters per cylinder. We are not continuing this provision because recreational marine engines are subject only to the Tier 3 standards that are not expected to change the physical characteristics of engines (Tier 3 standards will not result in a larger engine or otherwise require any more space within a vessel). Because of the similarity to Tier 2 engine standards there will be no need for boat builders to redesign engine compartments thus eliminating the need for this 5 year delay provision.

(vi) Small Vessel Operators Exempt From New Standards for Existing Fleet

In the proposed rule, we requested comment on an alternative program option (Alternative 5: Existing Engines) that would for the first time set emission standards for marine diesel engines on existing vessels—the marine existing fleet or remanufacture program. As described earlier in section III.B.2.b, Remanufactured Marine Standards, we plan to finalize only the first part of this option requiring the owner of a marine diesel engine (vessel operator) to use a certified marine remanufacture system when the engine is remanufactured if such a system is available.

The marine existing fleet program will apply only to those commercial marine diesel engines (C1 and C2 engines) which meet the following criteria:

- Greater than 600 kW (800 hp);
- Tier 0 or Tier 1 engines for C1 engines;
- Tier 0, Tier 1 or Tier 2 engines for C2 engines;
- Built in model year 1973 or later; and
- Have a certified kit available at time of remanufacture.

We estimate that about 4 percent (or about 3,885 of 105,406 engines) of all C1 and C2 engines are subject to the existing fleet program and are likely to have certified kits available at the time of remanufacture. Thus, the percentage of vessels impacted by the remanufacture program is estimated to be similar.

Industry commented that a small portion of the vessel operators with engines greater than 600 kW (800 hp) are small businesses that would be significantly burdened by the existing fleet program. To address these comments, the requirements of the marine existing fleet program do not apply to owners of marine diesel engines or vessel operators with less than $5 million in gross annual sales revenue. This threshold includes annual sales revenue from parent companies or affiliates of the owners/operators. (Small Business Administration's (SBA's) regulations at 13 CFR 121.103 describe how SBA determines affiliation.) If at some future date gross annual sales revenues are $5 million or more, they become subject to the existing fleet program at that point. The $5 million limit was chosen because a substantial sample of data for vessel operators—with vessels that have C1 and C2 engines greater than 600 kW—indicates that a significant portion of the total revenue for this sample set, about 80 percent, is generated by operators with $5 million or more in annual sales revenue.[163]

We expect that the amount of emissions from this sector correlates reasonably well with the amount of revenue generated (anticipate that revenue corresponds to activity which correlates well to emissions), and thus, most of the emissions from vessel operators (with engines greater than 600 kW (800 hp)) is obtained from those operators with $5 million or greater in revenue. The $5 million threshold for annual sales revenue is estimated to include about 8 percent less of the total vessel operator revenue compared to a $10 million limit, while reflecting 15 percent more revenue than a $1 million threshold. About 90 percent of all vessel operators with C1 and C2 engines have less than $5 million in revenue. The cost to remanufacture engines is a greater burden to the vessel operators with less than $5 million in revenue (larger fraction of revenue, etc.) than those above this limit. Therefore, the $5 million revenue threshold eliminates the regulatory burden for a substantial number of small vessel operators, while capturing a significant portion of the emissions from operators in the marine remanufacture program.

(vii) Hardship Provisions

Sections 1068.245, 1068.250 and 1068.255 of the existing title 40 regulations contain hardship provisions for engine and equipment manufacturers, including those that are small businesses. As proposed, we will apply these sections for marine applications such as PMMs, SVMs, and small-volume boat builders, which will effectively continue existing hardship provisions for these entities as described below.

In addition, for the marine existing fleet or remanufacture program, we are now providing these same hardship provisions to vessel operators or marine remanufacturers that qualify as small businesses. These provisions are described below.

*Post-Manufacture Marinizers (PMMs), Small-Volume Manufacturers (SVMs), and Vessel Operators (or Marine Remanufacturers):* As proposed, we are continuing two existing hardship provisions for PMMs and SVMs. In addition, we now extend these two provisions to small vessel operators or small marine remanufacturers for the marine existing fleet program. All of these entities may apply for this relief on an annual basis. First, under an economic hardship provision, PMMs, SVMs, and vessel operators (or marine remanufacturers) may petition us for additional lead time to comply with the standards. They must show that they have taken all possible business, technical, and economic steps to comply, but the burden of compliance costs will have a major impact on their company's solvency. As part of its application of hardship, a company is required to provide a compliance plan detailing when and how it plans to achieve compliance with the standards. Hardship relief could include requirements for interim emission reductions and/or purchase and use of emission credits. The length of the hardship relief decided during initial review is up to one year, with the potential to extend the relief as needed. We anticipate that one to two years is normally sufficient. Also, for PMMs and SVMs, if a certified base engine is available, they must generally use this

[163] The Waterways Journal, Inc., 2006 Inland River Record.

engine. We believe this provision will protect PMMs and SVMs from undue hardship due to certification burden. Also, some emission reduction can be gained if a certified base engine becomes available. See the regulatory text in 40 CFR 1068.250 for additional information.

Second, under the unusual circumstances hardship provision, PMMs, SVMs, and vessel operators (or marine remanufacturers) may also apply for hardship relief if circumstances outside their control cause the failure to comply and if the failure to sell the subject engines will have a major impact on their company's solvency. An example of an unusual circumstance outside a manufacturer's control may be an ''Act of God,'' a fire at the manufacturing plant, or the unforeseen shut down of a supplier with no alternative available (the second example is mainly for PMMs and SVMs). The terms and time frame of the relief depend on the specific circumstances of the company and the situation involved. As part of its application for hardship, a company is required to provide a compliance plan detailing when and how it will achieve compliance with the standards. We consider this relief mechanism to be an option of last resort. We believe this provision will protect PMMs, SVMs, and vessel operators (or marine remanufacturers) from circumstances outside their control. We, however, do not envision granting hardship relief if contract problems with a specific company prevent compliance for a second time. See the regulatory text in 40 CFR 1068.245 for additional information.

*Small-volume boat builders:* As proposed, we are continuing the unusual circumstances hardship provision for small-volume boat builders (those with less than 500 employees and worldwide production of fewer than 100 boats). Small-volume boat builders may apply for hardship relief if circumstances outside their control cause the failure to comply and if the failure to sell the subject vessels will have a major impact on the company's solvency. An example of an unusual circumstance outside a boat builder's control may be an ''Act of God,'' a fire at the boat building facility, or the unforeseen breakdown of a supply contract with an engine supplier. This relief allows the boat builder to use an uncertified engine and is considered a mechanism of last resort. The terms and time frame of the relief depend on the specific circumstances of the company and the situation involved. As part of its application for hardship, a company is required to provide a compliance plan detailing when and how it plans to achieve compliance with the standards. See the regulatory text in 40 CFR 1068.250 for additional information.

In addition, as described in the proposal, small-volume boat builders generally depend on engine manufacturers to supply certified engines in time to produce complying vessels by the date emission standards begin to apply. We are aware of other applications where certified engines have been available too late for equipment manufacturers to adequately accommodate changing engine size (for engines meeting Tier 4 standards, which are described in section III.B.2 of today's rule) [164] or performance characteristics. To address this concern, we are allowing small-volume boat builders to request up to one extra year before using certified engines if they are not at fault and will face serious economic hardship without an extension. See the regulatory text in 40 CFR 1068.255 for additional information.

(14) Alternate Tier 4 $NO_X$+HC Standards

We proposed to continue our existing emission averaging programs for the new Tier 4 $NO_X$ and HC standards for locomotives and marine engines. However, the existing averaging programs do not allow manufacturers to show compliance with HC standards using averaging. Because we are concerned that this could potentially limit the benefits of our averaging program as a phase-in tool for manufacturers, we are establishing an alternate $NO_X$+HC standard of 1.4 g/bhp-hr that could be used as part of the averaging program. Manufacturers that were unable to comply with the Tier 4 HC standard would be allowed to certify to a $NO_X$+HC FEL, and use emission credits to show compliance with the alternate standard instead of the otherwise applicable $NO_X$ and HC standards. For example, a manufacturer may choose to use banked emission credits to gradually phase in its Tier 4 1200 kW marine engines by producing a mix of Tier 3 and Tier 4 engines during the early part of 2014. $NO_X$+HC credits and $NO_X$ credits could be averaged together without discount.

The value of this alternate standard (1.4 g/bhp-hr) is the rounded sum of the Tier 4 $NO_X$ and HC standards. We proposed to set this value at the level of the $NO_X$ standard (1.3 g/bhp-hr). However, based on the comments received, we no longer believe this to be appropriate. See the Summary and Analysis of Comments for more discussion of this issue.

(15) Other Issues

We are finalizing other minor changes to the compliance program. For example, engine manufacturers will be required to provide installation instructions to vessel manufacturers and kit installers to ensure that engine cooling systems, aftertreatment exhaust emission controls, and other emission controls are properly installed. Proper installation of these systems is critical to the emission performance of the equipment. Vessel manufacturers and kit installers will be required to follow the instructions to avoid improper installation that could render emission controls inoperative. Improper installation would subject them to penalties equivalent to those for tampering with the emission controls.

We are also clarifying the general requirement that no emission controls for engines subject to this final rule may cause or contribute to an unreasonable risk to public health, welfare, or safety, especially with respect to noxious or toxic emissions that may increase as a result of emission-control technologies. The regulatory language, which addresses the same general concept as the existing §§ 92.205 and 94.205, implements sections 202(a)(4) and 206(a)(3) of the Act and clarifies that the purpose of this requirement is to prevent control technologies that would cause unreasonable risks, rather than to prevent trace emissions of any noxious compounds. This requirement prevents the use of emission-control technologies that produce pollutants for which we have not set emission standards but nevertheless pose a risk to the public. As is described in Section III and the Summary and Analysis of Comments document, this provision does not preclude the use of urea-based SCR emission controls.

Some marine engine manufacturers have expressed concern over the current provisions in our regulation for selection of an emission data engine. Part 94 specifies that a marine manufacturer must select for testing from each engine family the engine configuration which is expected to be worst-case for exhaust emission compliance on in-use engines. Some manufacturers have interpreted this to

[164] Tier 3 engine-out standards are not expected to change the physical characteristics of marine engines. Tier 3 standards will not result in a larger engine or otherwise require any more space within a vessel. For Tier 4 standards, we expect that vessels will be designed to accommodate emission components that engine manufacturers specify as necessary to meet these new standards (e.g., ensure adequate space is available to package aftertreatment components).

mean that they must test all the ratings within an engine family to determine which is the worst-case. Understandably, this interpretation could cause production problems for many manufacturers due to the lead time needed to test a large volume of engines. Our view is that the current provisions do not necessitate testing of all ratings within an engine family. Rather, manufacturers are allowed to base their selection on good engineering judgment, taking into consideration engine features and characteristics which, from experience, are known to produce the highest emissions. This methodology is consistent with the provisions for our on-highway and nonroad engine programs. Therefore, we are keeping essentially the same language in part 1042 as is in part 94. We are adopting similar language for locomotives and will apply it in the same manner as we do for marine engines.

*B. Compliance Issues Specific to Locomotives*

(1) Refurbished Locomotives

Section 213(a)(5) of the Clean Air Act directs EPA to establish emission standards for ''new locomotives and new engines used in locomotives.'' In the previous rulemaking, we defined ''new locomotive'' to mean a freshly manufactured or remanufactured locomotive.[165] We defined ''remanufacture'' of a locomotive as a process in which all of the power assemblies of a locomotive engine are replaced with freshly manufactured (containing no previously used parts) or reconditioned power assemblies. In cases where all of the power assemblies are not replaced at a single time, a locomotive is considered to be ''remanufactured'' (and therefore ''new'') if all of the power assemblies from the previously new engine had been replaced within a five year period.

Our new regulations clarify the definition of ''freshly manufactured locomotive'' when an existing locomotive is substantially refurbished including the replacement of the old engine with a freshly manufactured engine. The existing definition in § 92.12 states that freshly manufactured locomotives are locomotives that do not contain more than 25 percent (by value) previously used parts. We allowed freshly manufactured locomotives to contain up to 25 percent used parts because of the current industry practice of using various combinations of used and unused parts. This 25 percent value applies to the dollar value of the parts being used rather than the number because it more properly weights the significance of the various used and unused components. We chose 25 percent as the cutoff because setting a very low cutoff point would have allowed manufacturers to circumvent the more stringent standards for freshly manufactured locomotives by including a few used parts during the final assembly. On the other hand, setting a very high cutoff point could have required remanufacturers to meet standards applicable to freshly manufactured locomotives, but such standards may not have been feasible given the technical limitations of the existing chassis.

We are adding to § 1033.901 a definition of ''refurbish'' which will mean the act of modifying an existing locomotive such that the resulting locomotive contains less than 50 percent (by value) previously used parts (but more than 25 percent). We believe that where an existing locomotive is improved to this degree, it is appropriate to consider it separately from locomotives that are simply remanufactured in a conventional sense. As described below, we are specifying provisions for refurbished locomotives that vary by application (switch or line-haul) and model year (before or after 2015). See also section IV.B(2), which describes minimum credit proration factors for refurbished locomotives.

We are also clarifying that any locomotives built before 1973 become ''new'' and thus subject to our emission standards when refurbished. In the 1998 rulemaking, we determined that pre-1973 locomotives should not be considered ''new'' when remanufactured.[166] An important policy consideration in making that determination was our analysis of the feasibility of such locomotives to meet the Tier 0 emission standards. However, that analysis is not valid for refurbished locomotives. Given the degree to which such locomotives are redesigned and reconfigured, there is no reason that they should be considered differently from 1973 locomotives simply because their frames (or some other parts) were originally manufactured earlier.

We requested comment on setting more stringent standards for refurbished locomotives, considering that these locomotives are restored to a condition likely to allow for many years of continued service. Industry commenters expressed concern that our subjecting refurbished locomotives to more stringent standards could prove counterproductive, because state and local programs that currently help fund voluntary refurbishments to very clean emission levels could lose their incentive to continue doing so, given that these refurbishments would now just be meeting EPA standards. It was further argued that these refurbishments would also lose any opportunity to generate valuable ABT credits, given the challenge just in meeting the standards.

We believe that the need for financial incentives will be just as clear and just as strong under the new program as before. Refurbishing a locomotive effectively removes an old, high-emitting locomotive from the fleet and replaces it with a clean one. The substantial cost of doing so and the potential that, absent incentives, old locomotives (especially switchers) would continue in operation almost indefinitely are the true drivers for creating incentives, regardless of the standards involved. We expect that state and local government officials involved in this process are well aware of this and will act accordingly. The ABT credits that can be gained from these refurbishments have not been a major factor to date and, considering that the credits can subsequently be used to produce other, less clean locomotives, we do not believe that state and local governments would or should be satisfied to help finance clean locomotives that result in dirtier locomotives elsewhere. As detailed below, we are therefore adopting more stringent standards for refurbished locomotives and phasing in these standards in a way that we believe best facilitates continued refurbishment of existing locomotives, while recognizing differences between the switch and line-haul locomotive fleets and the emission reduction trends resulting from our tiered approach to standards-setting.

Currently, small numbers of old low-horsepower locomotives are being refurbished as significantly lower-emitting switch locomotives. The regulations in part 92 subject these locomotives to the Tier 0 standards (unless they contain less than 25 percent previously used parts) and allow them to generate emission credits if they are cleaner than required. The regulations in part 1033 will continue this approach through model year 2014. It is important to note that since most of these locomotives were originally manufactured before 1973, simply by

[165] As is described in this section, freshly manufactured locomotives, repowered locomotives, refurbished locomotives, and all other remanufactured locomotives are all ''new locomotives'' in both the previous and new regulations.

[166] ''Locomotive Emission Standards: Regulatory Support Document'', APPENDIX L, ''Exclusion of Pre-1973 Locomotives'', April 1998.

meeting the Tier 0 standards they will achieve significant emission reductions.

For similar reasons, we are adopting an interim program for slightly larger locomotives with power between 2300 and 3000 horsepower refurbished through model year 2014. These locomotives, which are frequently used as road switchers, would also be subject to the Tier 0 standards for this period.

We do not believe, however, that it would be appropriate to allow switch locomotives to be refurbished to the Tier 0+ standards in the long term. Once the Tier 4 standards begin to apply, we will allow these locomotives to be certified to the Tier 3 switch locomotive standards, which will still provide the opportunity to generate some emission credits as an incentive.

The story is slightly different for higher power line-haul locomotives, which are currently not being refurbished. Nearly all of these remaining in the Class I railroad fleets were originally manufactured in or after 1973 and are already subject to the Tier 0 or later standards. Therefore there will be less of an air quality incentive to fund their refurbishment, and so we are specifying that refurbished line-haul locomotives be subject to the same standards as freshly manufactured locomotives. The regulations would treat them the same except for emission credit proration factors, which are described in section IV.B.(2)

Another important consideration is the potential for refurbishment to be used as a loophole to circumvent the freshly manufactured standards for line-haul locomotives. Railroads currently turn over their line-haul fleets much faster than their switch fleets. However, it is not hard to envision a scenario in which railroads began refurbishing their locomotives rather than buying freshly manufactured locomotives, especially as the Tier 4 standards went into effect. A long-term program requiring that refurbished line-haul locomotives meet the same standards as freshly manufactured locomotives prevents refurbishment from being used as such a loophole.

TABLE IV–2.—PROVISIONS FOR REFURBISHED SWITCH LOCOMOTIVES

| | Applicable tier of standards | Minimum proration factor |
|---|---|---|
| Locomotives refurbished before 2015 | Tier 0+ | 0.60 |
| Locomotives refurbished in 2015 or later | Tier 3 | 0.60 |

TABLE IV–3.—PROVISIONS FOR REFURBISHED LINE-HAUL LOCOMOTIVES

| | Applicable tier of standards | Minimum proration factor |
|---|---|---|
| Locomotives refurbished before 2015 | Tier 2+/3 | 0.60 |
| Locomotives refurbished in 2015 or later | Tier 4 | 0.60 |

(2) Averaging, Banking and Trading

For the most part, our new regulations will continue the existing averaging banking and trading provisions for locomotives. This section only highlights the provisions that are most significant in the context of this Final Rule. The reader is encouraged to read subpart H of part 1033 for details of this program.

In order to ensure that the ABT program is not used to delay the implementation of the Tier 4 technology, we are applying a restriction similar to the averaging restriction that was adopted for Tier 2 locomotives in the previous locomotive rulemaking. We are restricting the number of Tier 4 locomotives that could be certified using credits to no more than 50 percent of a manufacturer's annual production. As was true for the earlier restriction, this is intended to ensure that progress is made toward compliance with the advanced technology expected to be needed to meet the Tier 4 standards. This will encourage manufacturers to make every effort toward meeting the Tier 4 standards, while allowing some use of banked credits to provide needed lead time in implementing the Tier 4 standards by 2015, allowing them to appropriately focus research and development funds.

We proposed to allow the carryover of all Part 92 credits except for PM credits generated from Tier 0 or Tier 1 locomotives. The Tier 0 and Tier 1 PM standards under part 92 were set above the average baseline level to act as caps on PM emissions rather than technology-forcing standards. While Part 92 allows credits generated only relative the estimated average baseline rather than the standards, we were still concerned that such credits might have been windfall credits. However, as is described in the Summary and Analysis of Comments document, after further analysis we now believe that allowing the carryover of all part 92 PM credits is appropriate and will allow such credits to be used under part 1033.

We are also updating the proration factors for credits generated or used by remanufactured locomotives. The updated proration factors better reflect the difference in service time for line-haul and switch locomotives. The ABT program is based on credit calculations that assume as a default that a locomotive would remain at a single FEL for its full service life (from the point it is originally manufactured until it is scrapped). However, when we established the existing standards, we recognized that technology would continue to evolve and that locomotive owners may wish to upgrade their locomotives to cleaner technology and certify the locomotive to a lower FEL at a subsequent remanufacture. We established proration factors based on the age of the locomotive to make calculated credits for remanufactured locomotives consistent with credits for freshly manufactured locomotives in terms of lifetime emissions. These proration factors are shown in § 1033.705 of the new regulations. These replace the existing proration factors of § 92.305. For example, using the new proration factors, a 15-year-old line-haul locomotive certified to a new FEL that was 1.00 g/bhp-hr below the applicable standard would generate the same amount of credit as a freshly manufactured locomotive that was certified to an FEL that was 0.43 g/bhp-hr below the applicable standard because the proration factor would be 0.43. For comparison, under the old regulations, the proration factor would have been 0.50.

We are correcting how the proration factors apply for refurbished locomotives to more appropriately give credits to railroads for upgrading old locomotives to use clean engines, rather than to continue using the old high emission engines indefinitely. As with the rest of the program, credits will be calculated from the difference between the applicable standard and the emissions of the new refurbished locomotive, adjusted to account for the projected time the locomotive would remain in service. The correction creates a floor for the credit proration factor for refurbished locomotives of 0.60. This is equal to the proration factor for 20-year-old switchers and would also be equivalent to a proration factor for a locomotive that was just over 10 years old. For example, refurbishing a 35-year-old switch locomotive to an FEL 1.0 g/bhp-hr below the Tier 0 standard would generate the same amount of credit as a conventional remanufacture of a 20-year-old switch locomotive to an FEL 1.0 g/bhp-hr below the Tier 0 standard. This is because we believe that such refurbished switch locomotives will almost certainly operate as long as a 20-year-old locomotive that was remanufactured at the same time. Similarly, we believe that refurbished line-haul locomotives would likely operate as long as a 10-year-old locomotive that was remanufactured at the same time.

Finally, we are finalizing special provisions for credits generated and used by Tier 3 and later locomotives. Under the current part 92 ABT program, credits are segregated based on the cycle over which they are generated but not by how the locomotive is intended to be used (switch, line-haul, passenger, etc.). Line-haul locomotives can generate credits for use by switch locomotives, and vice versa, because both types of locomotives are subject to the same standards. However, for the Tier 3 and Tier 4 programs, switch and line-haul locomotives are subject to different standards with emissions generally measured only for one test cycle. We will allow credits generated by Tier 3 or later switch locomotives over the switch cycle to be used by line-haul locomotives to show compliance with line-haul cycle standards. As proposed, we are not allowing such cross-cycle use of line-haul credits (or switch credits generated by line-haul locomotives) by Tier 3 or later switch locomotives.

To make this approach work without double-counting of credits, we are also adopting a special calculation method where the credit using locomotive is subject to standards over only one duty cycle while the credit generating locomotive is subject to standards over both duty cycles (and can thus generate credits over both cycles). In such cases, we would require the use of credits under both cycles. For example, for a Tier 4 line-haul engine family needing 1.0 megagram of $NO_X$ credits to comply with the line-haul emission standard, the manufacturer would have to use 1.0 megagram of line-haul $NO_X$ credits and 1.0 megagram of switch $NO_X$ credits if the line-haul credits were generated by a locomotive subject to standards over both cycles.

(3) Phase-In and Reasonable Cost Limit

The new Tier 0 and 1 emission standards become applicable on January 1, 2010. We also proposed a requirement for 2008 and 2009 when a remanufacturing system is certified to these new standards. If such a system is available before 2010 for a given locomotive model at a reasonable cost, remanufacturers of those locomotives may no longer remanufacture them to the previously applicable standards. They must instead comply with the new Tier 0 or 1 emission standards when they are remanufactured. Similarly, we are requiring them to use certified Tier 2 systems for 2008 through 2012 when a remanufacturing system is certified to the new Tier 2 standards. For the purposes of this provision, ''reasonable cost'' means that the total incremental cost to the operators of the locomotive (including initial hardware, increased fuel consumption, and increased maintenance costs) during the useful life of the locomotive must be less than $250,000. This cost limit is based on the upper cost we think likely to be required to meet these standards and reflects comments on our NPRM from remanufacturers.

As part of this phase-in requirement, we are requiring certifiers to notify customers that they are applying for certificate such that their locomotives will become subject to the new standards. We would then allow owners/operators a minimum 90-day grace period (after we issue the certificate) in which they could remanufacture their locomotives to the previously applicable standards once they are notified by the certificate holder that such systems are available. This allows them to use up inventory of older parts. However, where the certifiers do not immediately notify them, railroads would be allowed a grace period of at least 120 days after they are notified. This combined approach allows sufficient time to find out about the availability of kits and to make appropriate plans for compliance. We are also adding a new provision for owners/operators that limits the total number of locomotives that would need to meet the new standards during 2008 and 2009 to a fraction of the total number of remanufactures they do between October 3, 2008 and December 31, 2009 that are subject to either the old or new standards.

We are adding provisions that would allow Tier 0/1 remanufacturers to use during the phase-in period an assigned deterioration factor of 0.03 g/bhp-hr for PM and assume that all other deterioration factors are zero. We will also apply an in-use PM add-on of 0.03 g/bhp-hr. These two provisions are intended to address lead time concerns raised by commenters. The commenters correctly point out that the available lead time is not sufficient to allow remanufacturers to verify durability of the emission controls in a more conventional way. By addressing this lead time issue, we will make it more likely that the low emission kits will be brought to market early.

(4) Recertification Without Testing

Once manufacturers have certified an engine family, we have historically allowed them to obtain certificates for subsequent model years using the same test data if the engines remain unchanged from the previous model year. We refer to this type of certification as ''carryover.'' We are also extending this allowance to owner/operators. Specifically, we are adding the following paragraph to the end of § 1033.240:

(c) An owner/operator remanufacturing its locomotive to be identical to the previously certified configuration may certify by design without new emission test data. To do this, submit the application for certification described in § 1033.205, but instead of including test data, include a description of how you will ensure that your locomotives will be identical in all material respects to their previously certified condition. You have all of the liabilities and responsibilities of the certificate holder for locomotives you certify under this paragraph.

(5) Railroad Testing

Section 92.1003 requires Class I freight railroads to annually test a small sample of their locomotives. We proposed to adopt the same requirements in § 1033.810, but asked for comments on whether this program should be changed. In particular, we requested suggestions to better specify how a railroad selects which locomotives to test, which has been a source of some confusion in recent years. In this final rule, we are adopting a revised approach that should reduce this confusion. The regulations provide four options for railroads to select

locomotives for testing and require EPA to notify the railroad by January 1st for any year in which we choose to specify which locomotives should be tested.

In addition, the maximum annual testing rate is being lowered to 0.075 percent, from the previously applicable rates of 0.15 to 0.10 percent. This new rate will require Class I railroads to test approximately 20 locomotives per year. We believe that this number of tests (in addition to the testing required for certificate holders) will be enough to allow us to appropriately monitor the emission performance of in-use locomotives.

(6) Test Conditions and Corrections

In our previous rule, we established test conditions that are representative of in-use conditions. Specifically, we required that locomotives comply with emission standards when tested at temperatures from 45°F to 105°F and at both sea level and altitude conditions up to about 4,000 feet above sea level. One of the reasons we established such a broad range was to allow outdoor testing of locomotives. While we only required that locomotives comply with emission standards when tested at altitudes up to 4,000 feet for purposes of certification and in-use liability, we also required manufacturers to submit evidence with their certification applications, in the form of an engineering analysis, that shows that their locomotives were designed to comply with emission standards at altitudes up to 7,000 feet. We included correction factors that are used to account for the effects of ambient temperature and humidity on $NO_X$ emission rates.

We are now changing how the regulations deal with the test temperatures. We are specifying that testing without correction may be performed down to a lower limit of 60°F. In implementing the prior regulations, we found that the broad temperature range with correction, which was established to make testing more practical, was problematic. Given the uncertainty with the existing correction, manufacturers have generally tried to test in the narrower range being adopted today. However, we will still allow manufacturers to test at lower temperatures but will require them to develop correction factors specific to their locomotive designs.

We are also changing the altitude requirements for switch locomotives in response to a comment noting that switch locomotives will rarely operate above 5,500 feet. For switch locomotives, we will only require manufacturers to show that their locomotives comply with emission standards at altitudes up to 5,500 feet.

(7) Duty Cycles and Calculations

(a) Idle Weighting Adjustments

While we did not propose any changes to the weighting factors for the locomotive duty cycles, we did request comment on whether such changes would be appropriate in light of the proposed idle reduction requirements. The regulations specify an alternate calculation for locomotive equipped with idle shutdown features. This provision allows a manufacturer to appropriately account for the inclusion of idle reduction features as part of its emission control system. There are three primary reasons why we are not changing the calculation procedures with respect to the idle requirements. First, different shutdown systems will achieve different levels of idle reduction in use. Thus, no single adjustment to the cycle would appropriately reflect the range of reductions that will be achieved. Second, the existing calculation provides an incentive for manufacturers to design shutdown systems that achieve in the greatest degree of idle reduction that is practical. Finally, our feasibility analysis is based in part on the emission reductions achievable relative to the existing standards. Since some manufacturers already rely on the calculated emission reductions from shutdown features incorporated into many of their locomotive designs, our feasibility is based in part on allowing such calculations.

We are adopting a slight change to the way this adjustment works as compared to the previous regulations. We are specifying that idle emission rates for locomotives meeting our minimum shutdown requirements in § 1033.115 be reduced by 25 percent, unless the manufacturer demonstrates that greater idle reduction will be achieved.

(b) Representative Cycles

We also recognize that the potential exists for locomotives to include additional power notches, or even continuously variable throttles, and that the standard FTP sequence for such locomotives would result in an emissions measurement that does not accurately reflect their in-use emissions performance. Moreover, some locomotives may not have all of the specified notches, making it impossible to test them over the full test. Under the previous regulations, we handled such locomotives under our discretion to allow alternate calculations (40 CFR 92.132(e)). We are now adopting more specific provisions in § 1033.520. In general, for locomotives missing notches, we believe the existing duty cycle weighting factors should be reweighted without the missing notches. For locomotives without notches or more than 8 power notches, the regulations reference following information provided to us by manufacturers for the previous rulemaking that shows typical notch power levels expressed as a percentage of the rated power of the engine.

In response to comments we are also adding provisions to address locomotives that include new design features that will result in changes to the in-use duty cycle. Specifically, the regulations state that manufacturers must notify us if they are adding design features that will make the expected average in-use duty cycle of their engine family significantly different from the otherwise applicable test cycle. They must also recommend an alternate test cycle that represents the expected average in-use duty cycle. We will specify whether to use the default duty cycle, the recommended cycle, or a different cycle, depending on which cycle we believe best represents expected in-use operation. For locomotives subject to both line-haul and switch cycle standards, the regulations specify that a single set of standards would apply for the representative cycle.

(c) Energy Saving Design Features

We are adopting special provisions for locomotives equipped with energy-saving design features, such as sophisticated electronic optimization of throttle and brake settings based on route data or locomotive operation in a consist, electronically controlled pneumatic (ECP) brakes, and hybrid technology. The provisions we are adopting recognize that to whatever degree the total work done by a locomotive is reduced, the mass emissions would likely also be reduced. For example, if certain design features reduced by three percent the amount of work needed to pull a typical train, then the mass emission rate (g/hr) would generally also be reduced by three percent. Under the new provisions, manufacturers will be allowed to adjust their locomotives' emissions to reflect this, based on data gathered prior to certification.

Manufacturers choosing to adjust emissions under these provisions must present a test plan to EPA for approval prior generating the in-use data necessary to estimate their emissions reductions. The degree to which manufacturers would be allowed to take

a credit at certification would be determined from a statistical analysis of their supporting data to address the uncertainty in their estimate. This would minimize the possibility that manufacturers would be given credit for emission reductions that did not actually occur. Later, additional data on the in-use fleet using the feature could be gathered to improve the statistical certainty and this could then be factored into subsequent certifications. In concept, however, if we had perfect data, we would grant the manufacturers full credit for the savings.

Since our standards are specified as brake-specific emission limits, no credit or adjustment will be allowed for features that only improve the engine's brake-specific fuel consumption. The nature of the test procedure itself already properly credits such features. Thus, allowing additional credits to be calculated would be double-counting of credits.

(8) Non-OEM Remanufacturing Parts

We are adopting measures in § 1033.645 to help provide for the continued participation in remanufacturing by parts manufacturers willing to take responsibility for the long-term emissions performance of their parts but who lack the wherewithal to design and certify entire locomotive remanufacture systems that may include complex emissions control systems far beyond their expertise. Under this program, we would determine, based on an upfront engineering analysis, that the part supplier has a reasonable basis for concluding that use of their part would be equivalent to the OEM part in use. We would later verify its emission performance through in-use emission testing.

The exact nature of the engineering analysis necessary to demonstrate that the part supplier has a reasonable basis for concluding that use of their part (or parts) will not cause emissions to increase beyond the level expected from the OEM part in use, is expected to vary. We see four possible paths to accomplish this.

- The part is shown to be identical to the original part in all material respects.
- The part differs physically from the original in a small number of ways and each of these is evaluated to show that the aftermarket part will be as good as or better than the original with respect to emissions performance.
- Measurable emission-critical parameters such as fuel injection profile or engine oil consumption rate are established and an engine (or relevant engine subsystem) using the aftermarket part is shown through testing to perform as good or better than one with the original part with respect to these parameters.
- Emissions testing and durability demonstration is performed in essentially the same manner as for remanufactured system certification.

For example, cylinder liners differing only in color and part number from the OEM liners would be identical in all material respects. Those having different bore groove patterns would not be considered identical, but an analysis of the difference this makes in the oil's interaction with the cylinder wall and rings (which could have an impact on PM emissions) could suffice to make the demonstration. Chrome-plated cylinder liners in combination with a specified piston ring set used in place of original rings and non-plated liners could be expected to affect the emission-critical parameter of oil consumption, especially later in the locomotive useful life due to differences in wear rates. Bench or field testing over time demonstrating lower oil consumption trends than original equipment could provide a sufficient demonstration, provided no other emission-critical parameters are involved. We do not believe it is necessary or even possible to specify in the regulations the appropriate emission-critical parameters for all of the locomotive aftermarket components identified in this provision or to specify the test procedures and criteria by which these parameters are evaluated. Instead, we are establishing broad criteria and requiring the part suppliers to propose the appropriate emission-critical parameters and corresponding test or analytical methods appropriate to the part they produce.

We would allow railroads to use the non-OEM part during remanufacturing once we have approved the supplier's engineering analysis. Once the part has been installed in at least 250 locomotives, we would require one of them to be tested. One additional locomotive would need to be tested from the next additional 500 locomotives that use the part. If any locomotives fail to meet all standards, we generally require one additional locomotive to be tested for each locomotive that fails. We would generally allow the supplier to include testing performed by others. For example, if a railroad tests a locomotive with the part under § 1033.810, the supplier could submit those test data as fulfillment of its test obligations.

We are adopting these provisions to address the specific issue of parts that are typically replaced during remanufacturing and for which there is an active aftermarket. Therefore, we are only specifying cylinder liners, cylinder heads, pistons, rings, and fuel injectors as being covered by this program. We reserve the authority to expand the program to cover other parts.

(9) Use of Nonroad Engines Certified Under 40 CFR Parts 89 and 1039

Section 92.907 currently allows the use of a limited number of nonroad engines in locomotive applications without certification under the locomotive program. We believe a similar allowance should also be included in the new regulations. However, we are making some changes to these procedures. In general, manufacturers have not taken advantage of these previously existing provisions. In some cases, this was because the manufacturer wanted to produce more locomotives than allowed under the exemption. However, in most cases, it was because the customer wanted a full locomotive certification with the longer useful life and additional compliance assurances. We are adopting new separate approaches for the long term (§ 1033.625) and the short term (§ 1033.150), each of which addresses at least one of these issues.

For the long term, we are replacing the existing allowance that relies on part 89 certificates with a design-certification program that makes the locomotives subject to the locomotive standards in use but does not require new testing to demonstrate compliance at certification. Specifically, this program allows switch locomotive manufacturers using nonroad engines to introduce up to 30 locomotives of a new model prior to completing the traditional certification requirements. While the manufacturer would be able to certify without new testing, the locomotives would have locomotive certificates. Thus, purchasers would have the compliance assurances they desire.

As is described in section III B (1)(b), the short-term program is more flexible and does not require that the locomotives comply with the switch cycle standards; instead the engines would be subject to the part 1039 standards. The manufacturers would be required to use good engineering judgment to ensure that the engines' emission controls would function properly when installed in the locomotives. For example, the locomotive manufacturer would need to ensure that sufficient cooling capacity was available to cool the engine intake air. Given the relative levels of the part 1039 standards and those being

proposed in 1033, we do believe there is little environmental risk with this short-term allowance and thus are not including any limits of the sales of such locomotives. Nevertheless, we are limiting this allowance to model years through 2017. This provides sufficient time to develop these new switchers. These locomotives would not be exempt from the part 1033 locomotive standards when remanufactured, unless the remanufacturing of the locomotive took place prior to 2018 and involved replacement of the engines with certified new nonroad engines. Otherwise, the remanufactured locomotive will be required to be covered by a part 1033 remanufacturing certificate.

(10) Mexican and Canadian Locomotives

Under the prior regulations, Mexican and Canadian locomotives are subject to the same requirements as U.S. locomotives if they operate extensively within the U.S. The regulation 40 CFR 92.804(e) states:

Locomotives that are operated primarily outside of the United States, and that enter the United States temporarily from Canada or Mexico are exempt from the requirements and prohibitions of this part without application, provided that the operation within the United States is not extensive and is incidental to their primary operation.

We are changing this exemption to make it subject to our prior approval, since we have found that the current language has caused some confusion. When we created this exemption, it was our understanding that Mexican and Canadian locomotives rarely operated in the U.S. and the operation that did occur was limited to within a short distance of the border. We are now aware that there are many Canadian locomotives that do operate extensively within the U.S. and relatively few that meet the conditions of the exemption. We have also learned that some Mexican locomotives may be operating more extensively in the United States. Thus, it is appropriate to make this exemption subject to our prior approval. To obtain this exemption, a railroad will be required to submit a detailed plan for our review prior to using uncertified locomotives in the U.S. We will grant an exemption for locomotives that we determine will not be used extensively in the U.S. and that such operation will be incidental to their primary operation. Mexican and Canadian locomotives that do not have such an exemption and do not otherwise meet EPA regulations may not enter the United States.

(11) Other Locomotive Issues

The regulations in part 92 allow locomotive owners to voluntarily subject their pre-1973 locomotives to the Tier 0 standards or to include in the locomotive program low-horsepower locomotives that would otherwise be excluded based on their rated power. We are also including these options in the new part 1033. We will also provide two additional options. First, we will allow Tier 0 switch locomotives, which are normally not subject to line-haul cycle standards, to be voluntarily certified to the line-haul cycle standards. Second, we will allow any locomotives to be voluntarily certified to a more stringent tier of standards. An example of where these options may be desirable would be a case in which a customer wants to purchase a refurbished switch locomotive that meets the Tier 2 standards. While it may seem obvious that it would be allowed, the old regulations are unclear. The part 1033 regulations eliminate this confusion.

The existing and proposed regulations both specified that railroads are required to perform emission-related maintenance. In response to comments, we have added to the regulations a clarification that unscheduled maintenance has to be performed in a timely manner, no later than at the next ''92-day'' inspection required by the Federal Railroad Administration. Railroads expressed concern that the regulations, as previously written, would have required them to immediately remove a locomotive from service to make emission-related repairs. This was not our intent. Rather, the maintenance provision was intended to merely require that the maintenance be performed in a timely manner. For many repairs, it may be appropriate to wait until the next 92-day inspection. However, for many others it would be appropriate to make the repair sooner to the extent practical.

In response to comments, we are adding an interim allowance to simplify certification testing of locomotive engines. Specifically, for model years before 2014, we will allow manufacturers to test locomotive engines for certification without replicating the transient behavior in the locomotive. This will make it easier for manufacturers to certify new cleaner remanufacturing systems for the full range of locomotive models.

*C. Compliance Issues Specific to Marine Engines*

(1) Remanufacturing

As discussed in Section III, above, we are adopting a marine remanufacture program for marine diesel engines over 600 kW built from 1973 through Tier 2 that requires the use of a certified remanufacture system when such an engine is remanufactured, if one is available. Certified remanufacture systems must achieve at least a 25 percent reduction in PM emissions. This section briefly describes several certification and compliance provisions for the marine remanufacture program; the full program is contained in the regulations for this rule.

In general, the normal certification requirements for new marine diesel engines would apply, with minor variations as needed to accommodate the characteristics of remanufactured engines. For example, engine families are based on the same criteria as for freshly manufactured engines, and testing, reporting, the application for certification, and warranty requirements closely follow the provisions that apply for freshly manufactured engines.

In general, remanufactured engines are considered to be ''new'' engines, and they remain new until sold or placed back into service after the replacement of the last cylinder liner. The standards do not apply for engines that are rebuilt without removing cylinder liners. For a new engine to be placed into service, it must be covered by a certificate of conformity.

As is the case with our other emission control programs, certification testing for conformity demonstration will be performed on the most common configuration within an engine family. An engine family is a group of engines that have the same characteristics with respect to combustion cycle and fuel, cooling system, method of air aspiration, method of exhaust aftertreatment, combustion chamber design, bore and stroke, and mechanical or electronic controls. Other configurations may be included if it can be shown based on good engineering judgment that they are likely to provide a PM reduction similar to the configuration tested. Compliance for these other configurations is based on an engineering demonstration that the remanufacturing system reduces PM emissions by 25 percent without increasing $NO_X$ emissions. Engine families may also include remanufacturing systems corresponding to engines that were originally produced over multiple model years, as long as the configuration does not change in a

way that affects the validity of certification for the remanufacturing system.

To certify a remanufacture system, a manufacturer must measure baseline emissions and emissions from an engine remanufactured using its system. A baseline emission rate would be established by remanufacturing an engine following normal procedures. That engine or a second engine of the same configuration is then tested for emissions after remanufacturing with the expected emission controls. The remanufacturing system meets the emission standards of the program by demonstrating a minimum 25 percent reduction in PM emissions and no increase in $NO_X$ emissions (within 5 percent). The remanufacturer must also demonstrate that the remanufacturing system does not adversely affect engine reliability or power.

The remanufacturer must also demonstrate that the total marginal cost of the remanufacturing system is less than $45,000 per ton of PM reduction. For the purpose of this demonstration, marginal cost means the difference in costs between remanufacturing the engine using the remanufacture system and remanufacturing the engine conventionally. Total marginal costs over the period of one useful life are divided by the projected PM emissions over one useful life to obtain the cost of the remanufacture system per ton of PM reduced. Costs to be considered include hardware costs, labor costs, operating costs over one useful life period, and other costs (such as shipping).

The useful life provisions established for freshly manufactured engines would apply equally to remanufactured engines. In general, remanufacturers would be responsible for meeting emission standards for 10 years or 10,000 hours of operation for Category 1 engines, and 10 years or 20,000 hours of operation for Category 2 engines.

Certification will rely on a deterioration factor, similar to freshly manufactured engines. The certifying company may either use an assigned value of 0.015 g/kW-hr for PM or develop a new deterioration factor based on engine testing. For Tier 2 engines, the certifying company needs to add the deterioration factor to measured emission levels for certification. The deteriorated number must be less than the applicable PM standard. For Tier 1 and earlier engines, the deterioration factor is added to the emission level established for the certified configuration and that higher emission level serves as the emission standard for any in-use testing after certification.

The regulations allow for simplified certification requirements for remanufacture systems that are already certified under the locomotive program. This would require only an engineering analysis demonstrating that the system would achieve emission reductions from marine engines similar to those from locomotives. Because the marine remanufacture program requires only a PM reduction, locomotive remanufacture system manufacturers may modify those locomotive systems with respect to $NO_X$ emissions. In that case, the system will have to be recertified as a marine remanufacture system based on measured values and subject to all of the other certification requirements of the marine remanufacture program.

Remanufactured engines are not eligible for generating or using emission credits for averaging, banking, or trading. This is appropriate because the program we are finalizing is only mandatory if a system has been certified for the relevant engine. We will reconsider allowing systems to be based on emission credits when we consider whether to adopt a mandatory marine remanufacture program (Part 2 of the proposed program) at a later date.

Not-to-exceed standards do not apply to remanufacturing. This is appropriate because the base engine in most cases is not subject to NTE requirements. In addition, NTE is most appropriately considered in the initial engine design phase; requiring remanufactured engines to meet the NTE requirements would likely require more intensive engine redesign than is anticipated by the simpler program we are finalizing.

Finally, other provisions such as those governing maintenance intervals, warranties, duty cycles, test fuel, labeling, recordkeeping, etc. are the same as or similar to those for freshly manufactured engines.

(2) Replacement Engines

We are revising certain aspects of our existing provisions with regard to replacement engines, as described below. These requirements apply to all marine diesel engines, propulsion or auxiliary, regardless of marine application. Section 1042.601(c) provisions apply instead of the provision of section 1068.240(b)(3) that applies for other nonroad engines.

(a) Replacement With a Freshly Manufactured Engine

Under the current marine diesel engine program, an engine manufacturer is generally prohibited from selling a marine engine that does not meet the standards that are in effect when that engine is produced. However, we recognize that there may be situations in which a vessel owner may require an engine certified to an earlier tier of standards. The two most likely situations are (1) when a vessel has been designed to use a particular engine such that it cannot physically accommodate a different engine due to size or weight constraints (e.g., a new engine model will not fit into the existing engine compartment); or (2) when the engine is matched to key vessel components such as the propeller, or when a vessel has a pair of engines that must be matched for the vessel to function properly.

To address these extreme situations, we amended existing regulation 40 CFR 94.1103(b)(3) to allow a manufacturer to produce a new engine which meets an earlier tier of standards if the Administrator determined that no new engine certified to the emission limits in effect at that time is produced by any manufacturer with the appropriate physical or performance characteristics needed to repower the vessel. An engine manufactured pursuant to this provision is subject to certain conditions: The replacement engine must meet standards at least as stringent as those of the original engine; the engine manufacturer must take possession of the original engine or confirm it is destroyed; and the replacement engine must be clearly labeled to show that it does not comply with the standards and that sale or installation of the engine for any purpose other than as a replacement engine is a violation of federal law and subject to civil penalty.

We subsequently revised this provision to allow the engine manufacturer to make the determination of whether an engine compliant with the current standards would fit a vessel, but solely in cases of catastrophic failure (see 70 CFR 40419, July 13, 2005). This change was made to reflect industry concerns that obtaining prior EPA approval would take too long. The engine manufacturer may make the determination in catastrophic failure situations provided that the following conditions are met: The manufacturer must determine that no certified engine is available, either from its own product lineup or that of the manufacturer of the original engine (if different); and the engine manufacturer must document the reasons why an engine of a newer tier is not usable, and this report must be made available to us upon request. We also specified in § 94.1103(a)(8) that no other significant modifications to the vessel can be made as part of the process of replacing the engine, or for a period of 6 months thereafter.

In response to comments on the proposal for this rulemaking, we are

finalizing three additional revisions to the replacement engine provisions. First, engine manufacturers may now make the determination with respect to the feasibility of using a current tier engine in both noncatastrophic and catastrophic situations. This is a significant change to the program. Engine manufacturers and user groups were concerned about the amount of time that would be needed to obtain prior EPA approval, even in these noncatastrophic cases. Even though the noncatastrophic engine replacement is more typically planned in advance, it is still the case that the determination must be made in a timely manner to ensure the engine manufacturer has time to produce the engine before the vessel is taken out of service for the replacement. Therefore, we are revising the program to allow the engine manufacturer to make such determinations, provided certain additional conditions are met: The engine manufacturer must examine the suitability of replacement with any current tier engine, either produced by that manufacturer or any other manufacturer; the engine manufacturer must make a record of each determination, which must be kept for eight years and contain specific information; the record must be submitted to EPA within 30 days after shipping each engine along with a statement certifying that the information contained in that record is true. We may reduce the reporting and recordkeeping requirements in this section after a manufacturer has established a consistent level of compliance with the requirements of this section.

These records will be used by EPA to evaluate whether engine manufacturers are properly making the feasibility determination and applying the replacement engine provisions. We may void any exemptions we determine do not conform to the applicable requirements. When assessing penalties under this provision we would consider whether the manufacturer acted in good faith. Thus manufacturers are encouraged to keep additional records to support their good faith attempt to comply with the regulations. For example, manufacturers could keep records of requests for replacement engines that are denied.

In making the determination that a current tier engine is not a feasible replacement engine for a vessel, we expect the engine manufacturer will evaluate not just engine dimensions and weight but may also include other pertinent vessel characteristics. These pertinent characteristics would include downstream vessel components such as drive shafts, reduction gears, cooling systems, exhaust and ventilation systems, and propeller shafts; electrical systems for diesel generators (indirect drive engines); and such other ancillary systems and vessel equipment that would affect the choice of an engine. At the same time, there are differences between the new tier and original tier engines that should not affect this determination, such as the warranty period or life expectancy of a newer tier engine, or its cost or production lead time. These characteristics should not be part of the determination of whether or not a new tier engine can be used as a replacement engine. With regard to the warranty period or life expectancy for the new tier engine, an exception may be if these are significantly shorter for the new tier engine than for an older tier engine or the original engine and the shorter warranty period or life expectancy for the newer model is consistent with industry practices.

In addition, in the case of a vessel with two or more paired engines, if the engine not in need of replacement has accumulated service in excess of 75 percent of its useful life we specify that the determination must consider replacement of both engines in the pair. This requirement is necessary to prevent circumvention of the freshly manufactured engine requirements by replacing one engine at a time and relying on the need to pair the engines as the sole justification for producing an engine to an earlier tier. We are also specifying that no additional modifications may be made to a vessel for six months after installing a new replacement engine made to a previous tier. This is to avoid circumvention of the requirement to use a freshly manufactured engine when a vessel is refurbished such that it becomes a new vessel.

The second change to the replacement engine provision is necessary to accommodate the new tiers of standards we are adopting in this rulemaking. Specifically, in making the feasibility determination the engine manufacturer is now required to consider all previous tiers and use any of their own engine models from the most recent tier that meets the vessel's physical and performance requirements. If an engine manufacturer can produce an engine that meets a previous tier of standards representing better control of emissions than that of the engine being replaced, the manufacturer would need to supply the engine meeting the tier of standards with the lowest emission levels. For example, if a Tier 1 engine is being replaced after the Tier 3 standards go into effect, the engine manufacturer would have to demonstrate why a Tier 2 as well as a Tier 3 engine cannot be used before a Tier 0 engine can be produced and installed. Similarly, for an engine built prior to 2004, the engine manufacturer would have to demonstrate why a Tier 1, Tier 2, or a Tier 3 engine cannot be used. It should be noted, in the case of Tier 0 engines, that MARPOL Annex VI prohibits replacing an existing engine at or above 130 kW with a freshly manufactured engine unless it meets the Tier 1 standards.

The third change to the replacement engine provisions pertains to Tier 4 engines. We are making the advance determination that Tier 4 engines equipped with aftertreatment technology to control either $NO_X$ or PM are not required for use as replacement engines for engines from previous tiers in accordance with this regulatory replacement engine provision. Note, however, that Tier 4 engines will be required to be used as replacement engines if the original engine being replaced is a Tier 4 engine. We are making this determination in advance because we expect that installing such a Tier 4 engine in a vessel that was originally designed and built with a previous tier engine could require extensive vessel modifications (e.g., addition of a urea tank and associated plumbing; extra room for a SCR or PM filter; additional control equipment) that may affect important vessel characteristics (e.g., vessel stability). It should be noted that by making this advance determination, EPA is not implying that Tier 4 engines are never appropriate for use as replacement engines for engines from previous tiers; this determination is intended to simplify the search across engines and is based on the presumption that Tier 4 engines may not fit in most cases. We are also not intending to prevent states or local entities from including Tier 4 engines in incentive programs that encourage vessel owners to replace previous tier existing engines with new Tier 4 engines or to retrofit control technologies on existing engines, since those incentive programs often are designed to offset some of the costs of installing and/or using advanced emission control technology solutions. This advance determination is being made solely for Tier 4 marine diesel replacement engines that comply with the Tier 4 standards through the use of catalytic aftertreatment systems. Should an engine manufacturer develop a Tier 4 compliant engine solution that does not require the use of such technology, then this automatic determination will

not apply. Instead our existing provision will apply and it will be necessary to show that a non-catalytic Tier 4 engine would not meet the required physical or performance needs of the vessel.

(b) Replacement With an Existing Engine

Our current marine diesel engine program does not contain provisions that address the case in which an engine is replaced with an existing used engine. This means that if a vessel owner replaces an existing engine with a used engine, then that replacement engine is not required to be certified to our marine standards. It should be noted, however, that engines greater than 600 kW that are built after 1973 would still be subject to the remanufacture program described in Section III(C)(2)(b). This means if the existing engine that is the replacement engine has all of its cylinder liners replaced, it will be required to be remanufactured using a certified remanufacture system if one is available for that engine. It is our expectation that a vessel owner would not replace an existing engine above 600 kW with a partially-rebuilt engine, and therefore we do not expect to see replacement engines that are not remanufactured if there is a certified remanufacture system available.

These remanufacture requirements would apply whether the owner is obtaining an identical existing (used) replacement engine due to an engine failure or through an engine exchange for a periodic engine rebuild. These requirements would also apply if a vessel owner is obtaining a different model existing (used) replacement engine, for whatever reason.

It should be noted that pursuant to the definition of ''new marine engine,'' used engines brought into the marine market from other segments (e.g., locomotive, land-based nonroad, or highway sectors) are considered to be new marine diesel engines when they are marinized or modified for use on a vessel, and must meet the standards for newly manufactured engines in effect when such an engine is marinized or modified for installation on a vessel.

(c) Swing Engines

A swing engine is an additional engine that is purchased at the time the vessel is constructed as part of a rebuild strategy. When an engine is due for rebuild, that engine is removed from the vessel and replaced with the swing engine. The removed engine is rebuilt and then becomes the swing engine. Note that a swing engine is not meant to be a replacement engine in case of engine failure. Rather, it is a maintenance practice.

It is our expectation that the swing engine would undergo a complete rebuild, including cylinder liner replacement, before it is made available as the swing engine. That would constitute remanufacturing, and the engine would be required to comply with the engine remanufacture requirements. In general, this means that all engines that are part of a swing engine rebuild practice are expected to comply with the remanufacture requirements over time, providing a certified remanufacture system is available.

(d) Vessel Refurbishing

Our current program specifies that in addition to newly manufactured vessels, a vessel is considered to be ''new'' if it is modified such that the value of the modifications exceeds 50 percent of the value of the modified vessel. Such a refurbished vessel would be required to have an engine that is compliant with the standards in place when the vessel is modified. We expect that most vessel modifications will not trigger this threshold, but the requirement is necessary to accommodate those cases where a major structural change is done to a vessel that make it like-new.

We are revising this provision to specify how temporary modifications will be treated under this provision. In general, temporary modifications to a vessel would not be considered to be vessel refurbishing for the purpose of the ''new vessel'' definition. We are defining temporary modifications as modifications to a vessel that are made pursuant to a written contract between the vessel owners and the purchaser of the vessel's services and that are made for the purpose of fulfilling the purchaser's marine service requirements. To be considered to be temporary, the modifications must be removed from the vessel upon expiration of the contract or after a period of one year, whichever is shorter. While we will allow a vessel owner to petition EPA for a longer period of time, we will generally assume that changes that are necessary for longer than one year are quasi-permanent. We do not expect there to be many petitions for longer periods of time because temporary modifications that exceed 50 percent of the vessel's value would be considerable and would likely involve the vessel's power plant.

(3) Personal Use Exemption

The current marine diesel engine emission control program contains certain exemptions from the standards, including the following: test engines; manufacturer-owned engines; display engines; competition engines; export engines; and certain military engines. We also provide an engine dresser exemption that applies to marine diesel engines that are produced by marinizing a certified highway, nonroad, or locomotive engine without changing it in any way that may affect the emissions characteristics of the engine.

In addition to these existing exemptions we are also adding a new provision that exempts an engine installed on a vessel manufactured by a person for his or her own use (see 40 CFR 1042.630). This is intended to address the hobbyists and fishermen who make their own vessel (from a personal design, for example, or to replicate a vintage vessel) and who would otherwise be considered to be a manufacturer subject to the full set of emission standards by introducing a vessel into commerce. The exemption is intended to allow such a person to install a rebuilt engine, an engine that was used in another vessel owned by the person building the new vessel, or a reconditioned vintage engine (to add greater authenticity to a vintage vessel). The exemption is not intended to allow such a person to order a new uncontrolled engine from an engine manufacturer. We expect this exemption to involve a very small number of vessels, so the environmental impact of this exemption will be negligible, while the cost would otherwise be high to install a certified compliant engine.

Because the exemption is intended for hobbyists and fishermen, we are setting additional constraints. First, the vessel may not be used for general commercial purposes. The one exception to this is that the exemption allows a fisherman to use the vessel for his or her own commercial fishing. Second, the exemption is limited to one such vessel over a ten-year period and does not allow exempt engines to be sold for at least five years. We believe these restrictions are not unreasonable for a true hobby builder or comparable fisherman. Moreover, we require that the vessel generally be built from unassembled components, rather than simply completing assembly of a vessel that is otherwise similar to one that must use a freshly manufactured engine certified to meet the applicable emission standards. The person also must be building the vessel him- or herself, and not simply ordering parts for someone else to assemble. Finally, the vessel must be a vessel that is not classed or subject to Coast Guard inspections or surveys.

(4) Lifeboat/Rescue Boat Exemption

Our current marine diesel engine program does not exempt lifeboats or rescue boats, and we did not propose to revise that approach. This approach was developed for the Tier 2 marine diesel engine standards. As we explained in our 1999 FRM, the technologies that would meet Tier 2 standards would not have inherent negative effect on the performance or power density of an engine, and we expected that manufacturers would be able to use the range of technologies available to maintain or even improve the performance capabilities and reliability of their engines. We also note that land-based emergency engines such as standby generators are not exempt from our emission control requirements in either highway or nonroad applications.

We received several comments from manufacturers of lifeboats and rescue boats requesting that we reconsider this approach and exempt engines on lifeboats and rescue boats from the Tier 3 and Tier 4 standards. They noted that engines on lifeboats and rescue boats are not regularly used as they are intended for use only during emergencies, and they are generally only operated for 3 minutes once a week and are water tested for a short period only a few times a year. Boat manufacturers were also concerned about the reliability of electronic controls and advanced technology aftertreatment systems in these situations, especially when the boats are stored on deck and exposed to the elements.

We've also learned that at least some engine manufacturers that have certified engines in the past for use on Coast Guard approved lifeboats and rescue boats pursuant to Coast Guard and international (International Convention for the Safety of Life at Sea—SOLAS) requirements have not yet done so for Tier 2 engines and may elect not to do so at all.[167] The Coast Guard and SOLAS certification requirements are meant to ensure that an engine will perform after it is inverted, will operate when submerged up to the crankshaft, and will readily start at temperatures as low as −15 degrees C. This certification is expensive and time-consuming, and those costs may be difficult to recover over the limited U.S. market for lifeboats and rescue boats (100 to 150 boats per year). Manufacturers of those lifeboats that use those engines must either find an alternative engine for their product, and recertify the boats to the Coast Guard and SOLAS requirements, or exit the market.

After considering these comments, we conclude that it is reasonable to modify our program for engines used on Coast Guard approved lifeboats and rescue boats. First, our final program exempts engines intended to be used on lifeboats and rescue boats from the Tier 4 standards. This exemption is appropriate for technological reasons. We expect the Tier 4 standards to be met through the application of aftertreatment technology. While we believe these technologies will be durable and reliable, it is also the case the additional complexity could possibly affect engine performance in an emergency, which is the sole situation in which these engines would be used. For example, it would be necessary to ensure the engines on the lifeboat or rescue boat have onboard at all times an adequate supply of urea that meets the quality requirements of an SCR system. In addition, if the engine on the lifeboat or rescue boat is only run for very short periods of time for periodic onboard tests, the PM filter may not have time to regenerate. This could result in a small risk of plugging. Therefore, it is reasonable to exempt these engines from the Tier 4 requirements. It is worth noting that most lifeboat engines are less than 600 kW and thus would not be subject to Tier 4 standards.

Second, to avoid a situation in which an engine certified to the Coast Guard and SOLAS requirements is not available for use in a lifeboat or rescue boat application, we are providing an exemption that would have the effect of delaying the date of the emission standards for engines used on those boats until SOLAS certified engines of the respective emissions tier become available. Specifically, we will grant exemptions for engines not complying with the Tier 3 requirements for use in a Coast Guard approved lifeboat or rescue boat until such time as a comparable Tier 3 engine that meets the weight, size, and performance requirements of the boat is certified under the Coast Guard and SOLAS requirements. Once such an engine becomes available, the non Tier 3 compliant engines may not be sold for use in these applications. This provision is necessary because the Coast Guard has observed a precipitous drop in available SOLAS certified engines with the emissions tier change from the Tier 1 emissions standards to the Tier 2 emissions standards. Given the high cost of SOLAS certification and the low sales of SOLAS certified engines, engine manufacturers have delayed SOLAS certification of new emission tier engines. After considering the high cost of SOLAS certification, the need for additional lead time to complete the SOLAS certification process and the importance of lifeboats and rescue boats to safety, we have concluded it is appropriate to provide this exemption. We are not requiring engine manufacturers to certify these engines by a specified date. However, we anticipate that engine manufacturers will over time certify their Tier 3 engines to the Coast Guard and SOLAS requirements, or modify their existing Coast Guard certified engines as necessary to comply with the Tier 3 requirements. Most of the marine diesel engines used on lifeboats and rescue boats are derived from land-based highway or nonroad engines. Once the Tier 3 requirements for those engines go into effect and the Tier 2 or Tier 1 counterparts are retired from the fleet, it will become more expensive to continue to provide parts and service for these older engines, and engine manufacturers will prefer to provide newer tier engines for lifeboats and rescue boats globally. Because it is not possible to determine when that change will take place, the final program specifies that when they do become available, they must be used.

Finally, we are extending this exemption to Tier 2 engines as well. We have learned that some lifeboat and rescue boat manufacturers are having trouble obtaining engines that meet the Tier 2 standards. Note that because Tier 2 engines are not regulated under part 1042, this exemption is included in a new section in part 94 (94.914). As with the Tier 3 exemption, once a Tier 2 engine becomes available that meets the weight, size, and performance requirements of the boat and is certified under the Coast Guard and SOLAS requirements the exemption will no longer be available for freshly manufactured engines.

Engines that are produced to an earlier tier pursuant to these provisions must be labeled to make clear that their use is limited to lifeboats or rescue boats approved by the U.S. Coast Guard under approval series 160.135 or 160.156. Using such a vessel as for a purpose other than a lifeboat or rescue boat is a violation of the regulations.

The above provisions are applicable only to engines in lifeboats and rescue boats used solely for emergency purposes. This is an important distinction because there are cases in which a lifeboat may serve dual use on a vessel, both for general transportation (e.g., tenders) and for emergencies. Engines in lifeboats and rescue boats that are not used solely for emergency purposes are not exempt. These engines

[167] See *http://www.uscg.mil/hq/g-m/mse4/boatlb.htm#LIFEBOAT_FOR_MERCHANT_VESSELS* for Coast Guard requirements for lifeboats and rescue boats.

are not expected to remain idle long enough for urea storage or PM trap regeneration to be a problem. For all these reasons, the Tier 2 and 3 flexibility and Tier 4 exemption will apply only to engines intended for installation on lifeboats approved by the U.S. Coast Guard under approval series 160.135 (except those which are also approved for use as launches or tenders) and rescue boats approved by the U.S Coast Guard under series 160.156.

(5) Stand-By Emergency Auxiliary Engines

We are exempting certain stand-by emergency auxiliary engines from the Tier 4 standards. This exemption is necessary due to the fact that these engines are rarely used, their operation being limited to periodic testing of several minutes duration. While the technologies that will be used to achieve the Tier 4 standards are expected to be durable, it is also the case that operation for such short periods of time may not be enough to engage the aftertreatment regeneration strategy. In addition, these auxiliary engines would need separate urea tanks, rendering them more complicated to maintain and use in an emergency situation.

This exemption is limited to dedicated stand-by emergency auxiliary engines subject to United States Coast Guard requirements set out in 46 CFR part 112. In general, these stand-by emergency auxiliary engines are supplemental to the ships' main auxiliary engines. They are located away from the main engine compartment, have separate fuel tanks, and are connected to the ships' power system in such a way as to provide for emergency power only to emergency equipment and not the ship's power grid generally. These engines must be labeled for use as marine stand-by emergency auxiliary engines only.

Marine stand-by emergency engine means any marine auxiliary engine whose operation is limited to unexpected emergency situations on a vessel; these engines are subject to testing and maintenance required by the United States Coast Guard. They are generally used to produce power for critical networks or equipment (including power supplied to portions of a vessel) when electric power from the main auxiliary engine(s) is interrupted. Marine auxiliary engines used to supply power to the vessel's general electric grid or that are operated on a constant basis are not considered to be emergency marine auxiliary engines.

Exempted engines are required to meet the applicable Tier 3 standards (in part 89 or part 94, as applicable). See 40 CFR 1068.265 for the provisions that apply for such exempt engines. The engines must also be labeled to make clear that they are exempt and their use is limited to emergency stand-by auxiliary power as specified in United States Coast Guard requirements set out in 46 CFR part 112.

(6) Gas Turbine Engines

While gas turbine engines[168] are used extensively in naval ships, they are not used very often in commercial ships. Because of this and because we do not currently have sufficient information, we are not including marine gas turbines in this rulemaking. Nevertheless, we believe that gas turbines could likely meet the new standards (or similar standards) since they generally have lower emissions than diesel engines and may reconsider gas turbines in a future rulemaking.

(7) Natural Gas Engines

The increasing deployment of tankers carrying liquefied natural gas has led to greater numbers of large marine engines running on natural gas instead of diesel fuel. Depending on the technological approach engine manufacturers take, these engines could fall under our definition for spark-ignition engines even though their design and development is more like compression-ignition engines. Without some clarifying provision, these engines would therefore be subject to the standards that we are developing for inboard spark-ignition engines, which are based on automotive technologies. Since this is clearly not appropriate, we are adopting a provision to specify that natural gas engines above 250 kW are subject to standards for marine compression-ignition engines regardless of our regulatory definitions for spark-ignition and compression-ignition engines. Since the analysis of control technology and the estimated costs and emission reductions are very similar to that for diesel-fueled engines, we have made no effort to separately analyze these engines relative to the new emission standards.

(8) Residual Fuel Engines

The vast majority of Category 1 and 2 marine diesel engines subject to EPA's emission standards operate on distillate diesel fuel. There are cases, however, in which the owner of a vessel may prefer to operate a Category 2 engine on another type of diesel fuel. This is mainly the case for auxiliary engines on ocean-going vessels, to allow them to use the same fuel that is used in the propulsion engine (typically residual fuel). There are also a few vessels operated on the Great Lakes that use residual fuel or residual fuel blends.

Our marine diesel engine program requires engine manufacturers to perform certification testing using the same type of fuel that will be used in actual engine operation. This requirement, which was also included in our 1999 Tier 2 rule, is intended to ensure that engines meet the emission limits in operation. In our proposal, we noted that engine manufacturers have not certified Category 1 or 2 engines that can be operated on residual fuel to the Tier 2 standards. Manufacturers explained that it is not profitable to do so due to the small size of the U.S. market for these engines. They also informed us that it would be difficult to meet EPA's PM standards on residual fuel.

Some owners expressed concern to EPA about the unavailability of large auxiliary engines certified to the Tier 2 standards on residual fuel. These owners expressed a preference for auxiliary engines run on the same fuel as propulsion engines to simplify ship operations. To respond to this concern, we asked for comment on a compliance consisting of an alternative PM standard and a tighter $NO_X$ standard. The alternative standards would be available for auxiliary engines to be installed on vessels with Category 3 propulsion engines. Certification testing would still be required on residual fuel but we would allow alternative PM measurement procedures. To ensure that questions of test fuel and PM measurement are resolved before certification testing, manufacturers would have to apply to EPA to exercise this flexibility.

The alternative of exempting residual fuel engines from the test fuel requirement and allowing them to be tested on distillate fuel is not appropriate. All of our mobile source emission control programs are predicated on an engine meeting the emission standards in use. The test fuel requirement is one of several provisions that help ensure in-use compliance, including useful life periods, emission deterioration factors, durability testing, and not-to-exceed zone. Amending the test fuel provisions to allow manufacturers to certify residual fuel engines using distillate fuel would introduce considerable uncertainty into the in-use performance of these engines,

[168] Gas turbine engines are internal combustion engines that can operate using diesel fuel, but do not operate on a compression-ignition or other reciprocating engine cycle. Power is extracted from the combustion gas using a rotating turbine rather than reciprocating pistons.

would weaken the emission standards, and would be contrary to the goals of our program.

We received no comments supporting the compliance flexibility described above, and therefore we are not revising our program with respect to test fuels or the standards that apply to engines with per cylinder displacement below 30 liters that use residual fuel. We expect to revisit this issue in the context of our upcoming rulemaking for Category 3 marine diesel engines.

(9) Duty Cycles for Marine Engines

Manufacturers pointed out two inconsistencies between the proposal and existing requirements for marine engines related to the proposed duty cycles for marine propulsion engines less than 37 kW and the proposed duty cycle for propeller-law auxiliary engines. We agree that the existing 4-mode duty cycle (E3) should be used for these applications and have corrected this in the final rule.

We received comment that the 8-mode (C1) duty cycle was not designed to represent variable-speed propulsion engines intended for use with variable-pitch or electrically-coupled propellers. Caterpillar provided an example of a power curve for a variable-speed engine designed to operate with a controllable pitch propeller where the operation is limited at low and mid-range speeds. In this case, we agree that the constant speed (E2) test duty cycle, combined with the NTE requirements, is more representative of the operation of this engine than the proposed C1 cycle. For this engine, the power and torque at the C1 intermediate speed is relatively low, leading to a heavy weighting of low power operation. In addition, the power limit curve, for overload protection, is at lower power than even the E3 duty cycle.

Controllable pitch propellers are also used with variable speed engines that have power curves that are more similar to those seen for nonroad engines or marine engines used with fixed pitch propellers. We are concerned that the E2 duty cycle would not be representative of the operation of these engines. Therefore, we are finalizing the E3 duty cycle for variable-speed propulsion engines intended for use with variable-pitch or electrically-coupled propellers. In the case where the engine is not capable of operating over the E3 duty cycle in-use, the E2 duty cycle would be used. For the purposes of this requirement, we consider an engine capable of operating over the E3 duty cycle if the engine can safely achieve more than 1.15 times the power specified in the E3 duty cycle at 63, 80, and 91 percent of maximum test speed.

(10) Definition of Recreational Marine Diesel Vessel

We are adopting a revised the definition of recreational marine diesel vessel in part 1042 that will essentially return to the definition we originally adopted in 1999. This revision will effectively rescind that change we made in our 2003 recreational engine rule (68 FR 9745, February 28, 2003). As is described later, in that rulemaking we revised the definition of recreational vessel by adding a reference to the Coast Guard definition in 46 U.S.C. 2101. However, since then, it has become clear that the revision resulted in significant confusion for industry.

As described above, the Tier 3 standards that apply to recreational marine diesel engines are different than those that apply to standard power density commercial engines and recreational engines are not subject to the Tier 4 standards. Recreational engines are also subject to different compliance requirements, notably the duty cycle for certification testing and their useful life. These programmatic differences reflect the different way in which these engines are used, with recreational engines generally having a higher power/density ratio, operating at a higher load, and being used for fewer hours over their life than commercial engines.

Recreational engines are defined based on whether or not they are intended by the engine manufacturer to be installed on a recreational vessel. In our 1999 Tier 2 marine diesel engine rule, we defined recreational vessel as a vessel intended by the vessel operator to be operated primarily for pleasure or leased to another for the latter's pleasure, with the exception of (i) vessels less than 100 gross tons that carry more than six passengers; and (ii) vessels more than 100 gross tons that carry one or more passengers, where passenger means someone who pays to be on the vessel.

The goal of this definition was to exclude so-called recreational vessels that are in fact operated like commercial vessels: Those that are operated many hours a year (for example, charter fishing vessels and smaller tour vessels that are rented on an individual basis, with or without a crew). A personal vessel owned by an individual for his personal use and not for hire was intended to be considered to be a recreational vessel. For smaller vessels, this is achieved by requiring that there be fewer than six paying passengers; this allows an individual to invite friends onboard his or her vessel in return for some pecuniary arrangement (e.g., paying for the gas). For larger vessels, above 100 gross tons, the presence of any paying passenger prevents the vessel from being characterized as recreational; this is intended to cover luxury yachts that recover costs by taking paying passengers onboard. The specified paying passenger thresholds are high enough to make them likely to be known at the time the vessel is purchased.

In the 2003 rule, we revised the definition of recreational vessel, by adding a reference to the Coast Guard definition. However, the Coast Guard definition and EPA's definition have different intents. Coast Guard's requirements are safety related to ensure adequate lifesaving equipment is onboard a recreational vessel. For example, the Coast Guard definitions differentiate between charter and noncharter vessels based on whether vessels are operated with or without a crew. The intent of EPA's approach is to identify those vessels that are intended for pleasure as opposed to commercial applications. Thus our definition needs to rely on features that can be known at the time of manufacture. For example, by setting a six passenger threshold for small vessels our intent was to identify those vessels clearly identified by the manufacturer as being intended for charter use and not used as a charter either incidentally or unintentionally.

Since the Coast Guard definitions do not reflect the intent of EPA's program and are inconsistent with EPA's definitions, we are revising the definitions to remove the references to the Coast Guard definitions and reverting back to the original definitions adopted in 1999. While the new definition is being adopted in part 1042, § 94.12(i) of part 94 will allow manufacturers to use this new definition for certification under part 94. Commercial vessels that were categorized as recreational prior to that time due to confusion about the meaning of the definitions will not be affected by the revised definitions.

(11) Engine Stockpiling by Vessel Builders

Our existing marine diesel engine program specifies in § 94.1103(a)(5) that it is a prohibited act to introduce into commerce a new vessel containing an engine not covered by a certificate of conformity applicable for an engine model year the same as or later than the calendar year in which the manufacture

of the new vessel is initiated.[169] However, as an exception, we allow vessel manufacturers to use up their normal inventory of engines not certified to new, more stringent emission standards if they were built before the date on which the new standards apply (subject to stockpiling prohibitions). With the adoption of the Tier 3 and 4 emission standards, the location of this provision transfers to § 1068.101(a)(1), including the exception noted above, now being located in § 1068.105(a).

The normal inventory approach above was developed in response to traditional business practice in automotive and other industries where vehicles and equipment are serially manufactured. Although this scheme works well for most manufacturers of small, serially-produced marine vessels, its application to manufacturers of large, commercial marine vessels may not be so straightforward. In this latter case there are typically long lead-time build schedules and low production volumes, which translate to vessel manufacturers maintaining lean inventory onsite at the shipyard. Vessel manufacturers usually order engines from dealers upon entering into a vessel construction agreement with an end customer. Due to lengthy build schedules, which for many projects can be counted in years, and the location of some shipyards in low-lying coastal areas subject to seasonal flooding, engines are often delivered and warehoused at the dealers' offsite location until such time as the vessels are ready to receive them for installation. Especially in projects where construction agreements involve multiple vessels, engines for all vessels may be ordered and delivered to the dealer during the same year in which construction of the first vessel is initiated. Due to this type of business practice, we will allow vessel manufacturers to consider as part of their normal inventory those engines that are warehoused at offsite dealerships and for which the vessel manufacturer entered into a purchase agreement prior to a change in applicable emission standards, provided this practice is consistent with the vessel manufacturers past engine ordering practices. We will allow this normal inventory of engines to be used up after new emission standards apply. It should be noted, however, that this clarification does not extend to engines that are not the subject of a prior purchase agreement, and would not allow a vessel manufacturer to search for a previous tier engine among engine dealers to evade the standards. Also, if a dealer has previous tier engines that are not the subject of a prior purchase agreement after a new tier of standards goes into effect, those engines may be used only as replacement engines, subject to § 1042.615; those engines may not be sold for use in new vessels.

(12) Other Issues

Several commenters, including the United States Coast Guard, raised questions regarding the possibility that advanced aftertreatment based emission control systems for marine diesel engines may need to be by-passed or otherwise modified or disabled in order to guarantee safe operation under emergency conditions. In general terms, the commenters speculated that the catalyst systems could fail in such a manner as to restrict exhaust flow reducing engine power and potentially endangering vessel safety.

Marine vessels that lose power to a main propulsion engine or generating engine providing essential power to main propulsion engine auxiliaries could go adrift with almost no control. Unlike trucks and locomotives, marine vessels have no brakes and can literally ''coast'' for miles and due to their enormous tonnage have an incredible amount of momentum and can cause catastrophic damage via collisions, allisions, and groundings. In the past, main propulsion failures on marine vessels have resulted in severe loss of life, property, and damage to the marine environment. Due to this precedent, a loss of main propulsion is defined as a ''marine casualty or accident'' in 46 CFR 4.03–1(b)(2)(ix) and 46 CFR 4.05–1 requires the occurrence to be immediately reported to the Coast Guard. To avoid potential loss of propulsion 46 CFR 58.01–35 effectively requires that main propulsion auxiliary machinery be provided in duplicate to prevent single point of failure.

Our discussions with the engine manufacturers regarding the technologies they expect to use to comply with the rules we are finalizing today, lead us to conclude that such failure mechanisms are extremely unlikely given the robust nature of the technologies.[170] However, reflecting the high priority everyone places on safety and the reality that no one can say today with absolute certainty how emission control systems will be designed in the future, we are continuing several regulatory provisions that further ensure safe vessel operation under all circumstances. Consistent with Coast Guard's requirements for main propulsion auxiliary machinery, we feel these provisions address the single point of failure concern in the design of emission control systems.

First, we are continuing our general regulatory requirement found in § 1042.115(e) stating that a manufacturer may not design engines with emission-control devices, systems, or elements of design that cause or contribute to an unreasonable risk to public health, welfare, or safety while operating. Likewise, our regulations continue to make clear that actions taken by the operators of marine vessels in order to respond to a temporary emergency will not be considered tampering under § 1068.101(b)(1) provided the system is returned to its proper function as soon as possible. Lastly, in evaluating auxiliary emission control devices (AECDs) for marine diesel engines we will continue to recognize that AECDs, such as those that eliminate a single point of failure, are not defeat devices as defined under § 1042.115(f) if the AECDs are necessary to prevent engine (or vessel) damage or accidents. In the case of AECD approval, we will continue our current practice of reviewing manufacturer certification applications to ensure that these provisions are only used when necessary. Further, it is our general expectation that engine manufacturers will provide diagnostic systems to alert vessel operators when such AECDs are active and if the AECD requires the operator to take an action, the diagnostic system should give the vessel operator as much advance warning as reasonably possible.

## V. Costs and Economic Impacts

In this section, we present the projected cost impacts and cost effectiveness of the standards, and our analysis of the expected economic impacts on affected markets. The projected benefits and benefit-cost analysis are presented in Section VI. The benefit-cost analysis explores the net yearly economic benefits to society of the reduction in mobile source emissions expected to be achieved by

[169] The manufacture of a vessel is initiated when the keel is laid, or the vessel is at a similar stage of construction. ''A similar stage of construction'' means: (1) the stage at which construction identifiable with a specific vessel begins, and (2) assembly of that vessel has commenced comprising at least 50 tons or one percent of the estimated mass of all structural material, whichever is less.

[170] We should note here that the standards in our rules are performance-based rather than a prescription for the application of a specific technology. Our rules do not prevent a manufacturer from developing and applying new or different technology at some future time as long as it meets the performance basis in the rules (e.g., a 0.04 g/kW-hr standard PM).

this rulemaking. The economic impact analysis explores how the costs of the rule will likely be shared across the manufacturers and users of the engines and equipment that will be affected by the standards. Unless noted otherwise, all costs are in 2005 dollars.

The annual monetized health benefits of this rule in 2030 will range from $9.2 and $11 billion, assuming a 3 percent discount rate, or between $8.4 billion to $10 billion, assuming a 7 percent discount rate. The social costs of the new standards are estimated to be approximately $738 million in 2030.[171] The impact of these costs on society are estimated to be small, with the prices of rail and marine transportation services estimated to increase by about 1 percent.

Further information on these and other aspects of the economic impacts of our final rule are summarized in the following sections and are presented in more detail in the Final RIA for this rulemaking.

*A. Engineering Costs*

The following sections briefly discuss the various engine and equipment cost elements considered for this cost analysis and present the total engineering costs we have estimated for this rulemaking; the reader is referred to Chapter 5 of the final RIA for a complete discussion of our engineering cost estimates. When referring to ''equipment'' costs throughout this discussion, we mean the locomotive and/or marine vessel related costs as opposed to costs associated with the diesel engine being placed into the locomotive or vessel. Estimated freshly manufactured engine and equipment engineering costs depend largely on both the size of the piece of equipment and its engine, and on the technology package being added to the engine to ensure compliance with the standards. The wide size variation of engines covered by this program (e.g., small marine engines with less than 37 kW (50 horsepower, or hp) through locomotive and marine C2 engines with over 3000 kW (4000 hp) and the broad application variation (e.g., small pleasure crafts through large line haul locomotives and cargo vessels) that exists in these industries makes it difficult to present an estimated cost for every possible engine and/or piece of equipment. Nonetheless, for illustrative purposes, we present some example per engine/equipment engineering cost impacts throughout this discussion. This engineering cost analysis is presented in detail in Chapter 5 of the final RIA.

Note that the engineering costs here do not reflect changes to the fuel used to power locomotive and marine engines. Our Nonroad Tier 4 rule (69 FR 38958) controlled the sulfur level in all nonroad fuel, including that used in locomotives and marine engines. The sulfur level in the fuel is a critical element of the locomotive and marine program. However, since the costs of controlling locomotive and marine fuel sulfur have been considered in our Nonroad Tier 4 rule, they are not considered here. This analysis considers only those costs associated with the locomotive and marine program being finalized today. Also, the engineering costs presented here do not reflect any savings that are expected to occur because of the engine ABT program and the various flexibilities included in the program which are discussed in section IV of this preamble. As discussed there, these program features have the potential to provide savings for both engine and locomotive/vessel manufacturers.

(1) Freshly Manufactured Engine and Equipment Variable Engineering Costs

Engineering costs for exhaust emission control devices (i.e., catalyzed DPFs, SCR systems, and DOCs) were estimated using a methodology consistent with the one used in our 2007 heavy-duty highway rulemaking. In that rule, surveys were provided to nine engine manufacturers seeking information relevant to estimating the engineering costs for and types of emission-control technologies that might be enabled with ultra low-sulfur diesel fuel (15 ppm S). The survey responses were used as the first step in estimating the engineering costs of advanced emission control technologies anticipated for meeting the 2007 heavy-duty highway standards. We then built upon these engineering costs using input from members of the Manufacturers of Emission Controls Association (MECA). We also used this information in our recent nonroad Tier 4 (NRT4) rule. Because the anticipated emission control technologies expected to be used on locomotive and marine engines are the same as or similar to those expected for highway and nonroad engines, and because the expected suppliers of the technologies are the same for these engines, we have used that analysis as the starting point for estimating the engineering costs of these technologies in this rule.[172] Importantly, the analysis summarized here and detailed in the final RIA takes into account specific differences between the locomotive and marine products when compared to on-highway trucks (e.g., engine size).

Engineering costs of control include variable costs (for new hardware, its assembly, and associated markups) and fixed costs (for tooling, research, redesign efforts, and certification). We are projecting that the Tier 3 standards will be met by optimizing the engine and emission controls that will exist on locomotive and marine engines in the Tier 3 timeframe. Therefore, we have estimated no hardware costs associated with the Tier 3 standards. For the Tier 4 standards, we are projecting that SCR systems and DPFs will be the most likely technologies used to comply. Upon installation in a new locomotive or a new marine vessel, these devices would require some new equipment related hardware in the form of brackets, new sheet metal, and a reductant storage and delivery system. The annual variable costs for example years, the PM/$NO_X$ split of those engineering costs, and the net present values that would result are presented in Table V–1.[173] As shown, we estimate the net present value for the years 2006 through 2040 of all variable costs at $1.5 billion using a three percent discount rate, with $1.3 billion of that being engine-related variable costs.[174] Using a seven percent discount rate, these costs are $674 million and $575 million, respectively.

[171] The estimated 2030 social welfare cost of $738 million is based on draft compliance costs for this final rule of $740 million for that year. The final compliance cost estimate for 2030 is somewhat higher, at $759 million; see section VI.C for an explanation. This difference is not expected to have an impact on the results of the market analysis or on the expected distribution of social costs among stakeholders.

[172] ''Economic Analysis of Diesel Aftertreatment System Changes Made Possible by Reduction of Diesel Fuel Sulfur Content,'' Engine, Fuel, and Emissions Engineering, Incorporated, December 15, 1999, Public Docket No. A–2001–28, Docket Item II–A–76.

[173] The PM/$NO_X$+NMHC cost allocations for variable costs used in this cost analysis are as follows: SCR systems including marinization costs on marine applications are 100% $NO_X$+NMHC; DPF systems including marinization costs on marine applications are 100% PM; and, equipment hardware costs are split evenly.

[174] Throughout our cost and economic impact analyses, net present value (NPV) calculations are based on the period 2006–2040, reflecting the period when the NPRM analysis was completed. This has the consequence of discounting the current year costs, effectively 2007, and all subsequent years are discounted by an additional year. The result is a slightly smaller NPV of engineering costs than by calculating the NPV over 2007–2040 (3% smaller for 3% NPV and 7% smaller for 7% NPV). The same convention applies for the emission inventories as shown in Table V–7. We have used 2006 because we intended to publish the proposal in 2006. For the final analysis, we have chosen to continue with 2006 to make comparisons between proposal and final analyses more clear.

TABLE V–1.—FRESHLY MANUFACTURED ENGINE AND EQUIPMENT VARIABLE ENGINEERING COSTS

[Millions of 2005 dollars]

| Year | Engine variable engineering costs | Equipment variable engineering costs | Total variable engineering costs | Total for PM | Total for $NO_X$+NMHC |
|---|---|---|---|---|---|
| 2008 | $0 | $0 | $0 | $0 | $0 |
| 2009 | $0 | $0 | $0 | $0 | $0 |
| 2010 | $0 | $0 | $0 | $0 | $0 |
| 2011 | $0 | $0 | $0 | $0 | $0 |
| 2012 | $0 | $0 | $0 | $0 | $0 |
| 2015 | $60 | $11 | $71 | $37 | $34 |
| 2020 | $82 | $14 | $96 | $50 | $46 |
| 2030 | $99 | $18 | $117 | $61 | $56 |
| 2040 | $98 | $17 | $115 | $60 | $55 |
| NPV at 3% | $1,255 | $220 | $1,475 | $772 | $703 |
| NPV at 7% | $575 | $100 | $674 | $353 | $321 |

We can also look at these variable engineering costs on a ''per engine'' and a ''per piece of equipment'' basis rather than an annual total basis. Doing so results in the costs summarized in Table V–2. The costs shown represent the total engine-related and equipment-related engineering hardware costs associated with all of the new emissions standards to which the given power range and market segment would need to comply. For example, a commercial marine engine below 600 kW (805 hp) would need to comply with the Tier 3 standards as its final tier and would, therefore, incur no new hardware costs. In contrast, a commercial marine engine over 600 kW is expected to comply with both Tier 3 and then Tier 4 and would, therefore, incur hardware costs associated with the Tier 4 standards. The costs also represent long term costs or those costs after expected learning effects have occurred and warranty costs have stabilized.

**Table V-2 Long-term Variable Engineering Cost per New Engine & Piece of Equipment to Comply with the Final Tier of Standards (2005 dollars) [a]**

| Power Range | Locomotive Line haul | Locomotive Switcher [b] | C1 Marine | C2 Marine |
|---|---|---|---|---|
| Engine Costs ($/engine) | | | | |
| 600≤kW<1500 | NA [c] | NA | $11,540 | $29,960 |
| ≥1500 kW | $54,630 | $13,640 | $20,050 | $55,750 |
| # of engines/piece of equipment | | | | |
| 600≤kW<1500 | NA | NA | 2 | 2 |
| ≥1500 kW | 1 | 1 | 2 | 2 |
| Equipment Costs ($/piece of equipment for Tier 4 engines) | | | | |
| 600≤kW<1500 | NA | NA | $23,070 | $59,910 |
| ≥1500 kW | $54,630 | $13,640 | $40,110 | $111,510 |
| Equipment Costs ($/piece of equipment to accommodate Tier 4 engines) | | | | |
| 600≤kW<1500 | NA | NA | $5,500 | $5,500 |
| ≥1500 kW | $10,400 | $7,500 | $10,400 | $10,400 |
| Total Variable Cost ($/piece of equipment) | | | | |
| 600≤kW<1500 | NA | NA | $28,570 | $65,420 |
| ≥1500 kW | $65,020 | $21,140 | $50,490 | $121,890 |

Notes:

(a) We have estimated no variable engineering costs associated with the Tier 3 standards and none associated with the Tier 4 standards for power ranges below 600 kW (800 hp) or for the recreational marine and small commercial marine categories.

(b) Locomotive switchers generally use land-based nonroad engines (i.e., NRT4 engines); therefore, we have used NRT4 cost estimates for locomotive switchers in this rulemaking.

(c) NA (not applicable) means there are no engines in that market segment/power range.

(2) Freshly Manufactured Engine and Equipment Fixed Engineering Costs

Because these technologies are being researched for implementation in the highway and nonroad markets well before the locomotive and marine emission standards take effect, and because engine manufacturers will have had several years complying with the highway and nonroad standards, we believe that the technologies used to comply with the locomotive and marine standards will have undergone significant development before reaching locomotive and marine production, and

we have considered this in estimating the costs for research and development. Chapter 5 of the final RIA details our approach which differs from our approach in the draft RIA. We anticipate that engine manufacturers would introduce a combination of primary technology upgrades to meet the new emission standards. Achieving very low $NO_X$ emissions requires basic research on $NO_X$ emission-control technologies and improvements in engine management. There would also have to be some level of tooling expenditures to make possible the fitting of new hardware on locomotive and marine engines. We also expect that locomotives and marine vessels being fitted with Tier 4 engines would have to undergo some level of redesign to accommodate the aftertreatment devices expected to meet the Tier 4 standards. The total of fixed engineering costs and the net present values of those costs are shown in Table V–3.[175] As shown, we have estimated the net present value for the years 2006 through 2040 of all fixed engineering costs at $549 million using a three percent discount rate, with $471 million of that being engine-related research costs. Using a seven percent discount rate, these costs are $422 million and $371 million, respectively.

TABLE V–3.—FRESHLY MANUFACTURED ENGINE AND EQUIPMENT FIXED ENGINEERING COSTS

[Millions of 2005 dollars]

| Year | Engine research | Engine tooling | Engine certification | Equipment redesign | Total fixed engineering costs | Total for PM | Total for $NO_X$ +NMHC |
|---|---|---|---|---|---|---|---|
| 2008 | $34 | $0 | $0 | $0 | $34 | $11 | $23 |
| 2009 | 34 | 0 | 0 | 0 | 34 | 11 | 23 |
| 2010 | 68 | 0 | 0 | 0 | 68 | 23 | 46 |
| 2011 | 114 | 19 | 5 | 0 | 138 | 50 | 88 |
| 2012 | 80 | 0 | 0 | 0 | 80 | 27 | 54 |
| 2015 | 46 | 17 | 1 | 13 | 76 | 30 | 46 |
| 2020 | 0 | 0 | 0 | 3 | 3 | 1 | 1 |
| 2030 | 0 | 0 | 0 | 3 | 3 | 1 | 1 |
| 2040 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| NPV at 3% | 471 | 33 | 6 | 39 | 549 | 194 | 354 |
| NPV at 7% | 371 | 24 | 5 | 22 | 422 | 148 | 274 |

Some of the estimated fixed engineering costs would occur in years prior to the Tier 3 standards taking affect in 2012. Engine manufacturers would need to invest in engine tooling and certification prior to selling engines that meet the standards. Engine research is expected to begin five years in advance of the standards for which the research is done. We have estimated some engine research for both the Tier 3 and Tier 4 standards, although the research associated with the Tier 4 standards is expected to be higher since it involves work on aftertreatment devices which only the Tier 4 standards would require. By 2016, the Tier 4 standards would be fully implemented and engine research toward the Tier 4 standards would be completed. Similarly, engine tooling and certification efforts would be completed. We have estimated that equipment redesign, driven mostly by marine vessel redesigns, would continue for many years given the nature of the marine market. Therefore, by 2017 all engine-related fixed engineering costs would be zero, and by 2033 all equipment-related fixed engineering costs would be zero.

(3) Freshly Manufactured Engine Operating Costs

We anticipate an increase in costs associated with operating locomotives and marine vessels. We anticipate three sources of increased operating costs: Reductant use; DPF maintenance; and a fuel consumption impact. Increased operating costs associated with reductant use would occur only in those locomotives/vessels equipped with a SCR engine using a reductant like urea. Maintenance costs associated with the DPF (for periodic cleaning of accumulated ash resulting from unburned material that accumulates in the DPF) would occur in those locomotives/vessels that are equipped with a DPF engine. The fuel consumption impact is anticipated to occur more broadly—we expect that a one percent fuel consumption increase would occur for all new Tier 4 engines, locomotive and marine, due to higher exhaust backpressure resulting from aftertreatment devices. These costs and how the fleet cost estimates were generated are detailed in Chapter 5 of the final RIA and are summarized in Table V–4.[176]

TABLE V–4.—FRESHLY MANUFACTURED ENGINE ESTIMATED INCREASED OPERATING COSTS

[Millions of 2005 dollars]

| Year | Reductant use | DPF maintenance | Fuel consumption impact | Total operating costs | Total for PM | Total for $NO_X$+NMHC |
|---|---|---|---|---|---|---|
| 2008 | $0 | $0 | $0 | $0 | $0 | $0 |
| 2009 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2010 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2011 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2012 | 0 | 0 | 0 | 0 | 0 | 0 |
| 2015 | 23 | 0 | 7 | 30 | 4 | 26 |

[175] The PM/$NO_X$+NMHC cost allocations for fixed costs used in this cost analysis are as follows: Engine research expenditures are 67% $NO_X$+NMHC and 33% PM; engine tooling and certification costs are split evenly; and, equipment redesign costs are split evenly.

[176] The PM/$NO_X$+NMHC cost allocations for operating costs used in this cost analysis are as follows: Reductant costs are 100% $NO_X$+NMHC; DPF maintenance costs are 100% PM; and, fuel consumption impacts are split evenly.

TABLE V–4.—FRESHLY MANUFACTURED ENGINE ESTIMATED INCREASED OPERATING COSTS—Continued

[Millions of 2005 dollars]

| Year | Reductant use | DPF maintenance | Fuel consumption impact | Total operating costs | Total for PM | Total for $NO_X$+NMHC |
|---|---|---|---|---|---|---|
| 2020 | 143 | 3 | 42 | 187 | 24 | 164 |
| 2030 | 409 | 8 | 118 | 535 | 67 | 468 |
| 2040 | 619 | 12 | 175 | 806 | 99 | 707 |
| NPV at 3% | 4,031 | 75 | 1,157 | 5,264 | 654 | 4,610 |
| NPV at 7% | 1,575 | 29 | 453 | 2,057 | 256 | 1,801 |

As shown, we have estimated the net present value for the years 2006 through 2040 of the annual operating costs at $5.2 billion using a three percent discount rate and $2.1 billion using a seven percent discount rate. The operating costs are zero until Tier 4 engines start being sold since only the Tier 4 engines are expected to incur increased operating costs (note that operating costs associated with the remanufacturing programs are discussed below). Reductant use represents the largest source of increased operating costs. Because reductant use is meant for controlling $NO_X$ emissions, most of the operating costs are associated with $NO_X$+NMHC control.

(4) Engineering & Operating Costs Associated With the Remanufacturing Programs

We have also estimated engineering costs associated with the locomotive and marine remanufacturing programs. The remanufacturing process is not a low cost endeavor. However, it is much less costly than purchasing a freshly manufactured engine. The engineering costs we have estimated associated with the remanufacturing program are not meant to capture the remanufacturing process but rather the incremental engineering costs to that process. Therefore, the remanufacturing costs estimated here are only those engineering and operating costs resulting from the requirement to meet a more stringent standard than the engine was designed to meet at its original sale. In addition to incremental hardware costs, we expect that some remanufactured engines will see a fuel consumption impact. We expect a one percent fuel consumption increase will occur for remanufactured Tier 0 locomotives because we believe that the tighter $NO_X$ standard will be met using retarded timing. For the same reason, we expect a two percent fuel consumption increase for remanufactured C2 marine engines. The marine engines will have timing retarded to the same degree as locomotives, but the relative degree of timing retard will be greater for marine engines given their initial state of control. These engineering and operating costs and how they were generated are detailed in Chapter 5 of the final RIA and are summarized in Table V–5.[177] As shown, we have estimated the net present value for the years 2006 through 2040 of the annual engineering and operating costs associated with the locomotive and marine remanufacturing programs at $2.1 billion using a 3 percent discount rate and $1.2 billion using a 7 percent discount rate.

TABLE V–5.—ESTIMATED HARDWARE AND OPERATING COSTS ASSOCIATED WITH THE LOCOMOTIVE & MARINE REMANUFACTURING PROGRAMS

[Millions of 2005 dollars]

| Year | Locomotive | Marine | Total | Total for PM | Total for $NO_X$+NMHC |
|---|---|---|---|---|---|
| 2008 | $59 | $16 | $75 | $38 | $38 |
| 2009 | 32 | 21 | 54 | 27 | 27 |
| 2010 | 58 | 27 | 85 | 42 | 42 |
| 2011 | 111 | 32 | 143 | 71 | 71 |
| 2012 | 91 | 44 | 135 | 68 | 68 |
| 2015 | 52 | 37 | 89 | 44 | 44 |
| 2020 | 37 | 26 | 63 | 31 | 31 |
| 2030 | 94 | 12 | 106 | 53 | 53 |
| 2040 | 158 | 3 | 161 | 80 | 80 |
| NPV at 3% | 1,669 | 450 | 2,120 | 1,060 | 1,060 |
| NPV at 7% | 864 | 289 | 1,153 | 577 | 577 |

(5) Total Engineering & Operating Costs

The total engineering and operating costs associated with today's final rule are the summation of the new engine and new equipment engineering costs, both fixed and variable, the new engine operating costs for freshly manufactured engines, and the hardware and operating costs associated with the locomotive and marine remanufacturing programs. These costs are summarized in Table V–6.

[177] Costs associated with the remanufaturing program are split evenly between $NO_X$+NMHC and PM. Note that the costs associated with the marine remanufacturing program are consistent with the inventory reductions discussed in section II. Our estimate of the number of remanufactured engines is presented in a memorandum from Amy Kopin to the docket for this rule (see Docket Item No. EPA–HQ–OAR–2003–0190–0847).

TABLE V–6.—TOTAL ENGINEERING & OPERATING COSTS OF THE FINAL PROGRAM

(Millions of 2005 dollars]

| Year | Freshly manufactured engine related engineering costs | Freshly manufactured equipment related engineering costs | Freshly manufactured engine & equipment operating costs | Hardware and operating costs associated with the remanufacturing programs | Total engineering costs | Total PM costs | Total $NO_X$+NMHC costs |
|---|---|---|---|---|---|---|---|
| 2008 | $34 | $0 | $0 | $75 | $109 | $49 | $60 |
| 2009 | 34 | 0 | 0 | 54 | 87 | 38 | 49 |
| 2010 | 68 | 0 | 0 | 85 | 153 | 65 | 88 |
| 2011 | 138 | 0 | 0 | 143 | 281 | 121 | 160 |
| 2012 | 80 | 0 | 0 | 135 | 215 | 94 | 121 |
| 2015 | 123 | 24 | 30 | 89 | 266 | 116 | 150 |
| 2020 | 82 | 17 | 187 | 63 | 349 | 106 | 242 |
| 2030 | 99 | 20 | 535 | 105 | 759 | 181 | 578 |
| 2040 | 98 | 17 | 806 | 161 | 1,082 | 240 | 842 |
| NPV at 3% | 1,764 | 260 | 5,264 | 2,120 | 9,407 | 2,680 | 6,727 |
| NPV at 7% | 974 | 122 | 2,057 | 1,153 | 4,307 | 1,333 | 2,973 |

As shown, we have estimated the net present value of the annual engineering costs for the years 2006 through 2040 at $9.4 billion using a three percent discount rate and $4.3 billion using a seven percent discount rate. Roughly half of these costs are operating costs, with the bulk of those being reductant related costs. As explained above in the operating cost discussion, because reductant use is meant for controlling $NO_X$ emissions, most of the operating costs and, therefore, the majority of the total engineering costs are associated with $NO_X$+NMHC control.

Figure V–1 graphically depicts the annual engineering costs associated with the program being finalized today. The engine costs shown represent the engineering costs associated with engine research and tooling, etc., and the incremental costs for new hardware such as DPFs and reductant SCR systems. The equipment costs shown represent the engineering costs associated with equipment redesign efforts and the incremental costs for new equipment-related hardware such as reductant storage and delivery systems, sheet metal and brackets. The remanufacturing program costs include incremental hardware and operating costs for the locomotive and marine remanufacturing programs. The operating costs include incremental increases in operating costs associated with reductant use, DPF maintenance, and a one percent fuel consumption increase for new Tier 4 engines. The total program engineering costs are shown in Table V–6 as $9.4 billion at a three percent discount rate and $4.3 billion at a seven percent discount rate.

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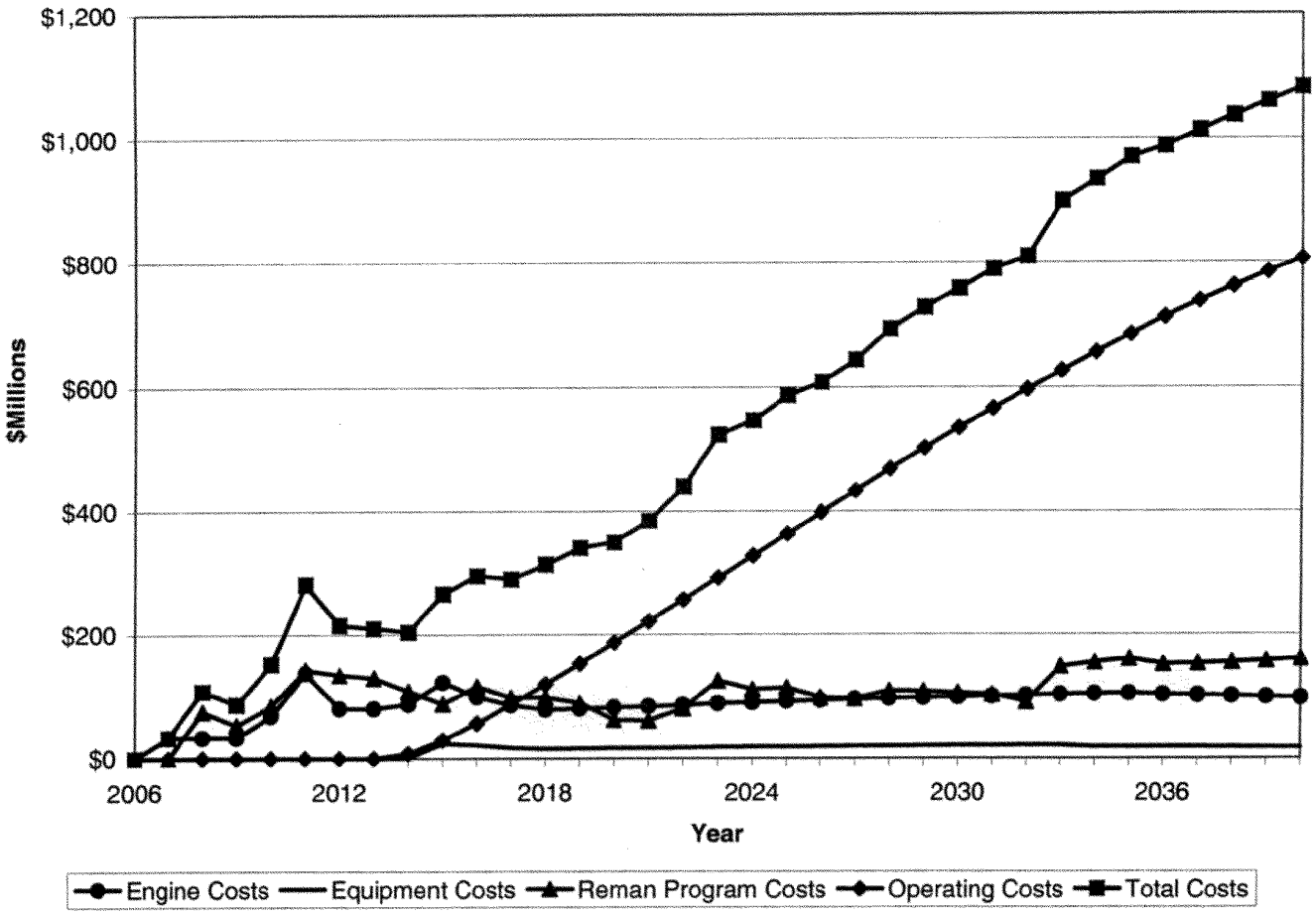
**Figure V-1 Annual Engineering Costs of the New Engine Standards and Locomotive & Marine Remanufacturing Programs**

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*B. Cost Effectiveness*

As discussed in section VI, this rule is very cost beneficial, with social benefits far outweighing social costs. However, this does not shed light on how cost effective this control program is compared to other control programs at providing the expected emission reductions. One tool that can be used to assess the value of the final program is the ratio of engineering costs incurred per ton of emissions reduced and comparing that ratio to other control programs. As we show in this section, the PM and $NO_X$ emissions reductions from the new locomotive and marine diesel program compare favorably—in terms of cost effectiveness—to other mobile source control programs that have been or will soon be implemented. We note that today's action builds upon the efforts undertaken by the engine manufacturing industry to comply with our recent 2007/2010 heavy-duty highway and nonroad Tier 4 (NRT4) rulemakings. As such, and as discussed at length in Chapter 5 of the final RIA, much of the research and development associated with diesel emission controls builds upon the work done to comply with those earlier rules. This does not change the conclusion that the cost effectiveness of today's action compares favorably with other actions deemed appropriate for society.

We have calculated the cost per ton of our program based on the net present value of all engineering costs incurred and all emission reductions generated from the current year 2006 through the year 2040. This approach captures all of the costs and emissions reductions from our program including those costs incurred and emissions reductions generated by the locomotive and marine remanufacturing programs. The baseline case for this evaluation is the existing set of engine standards for locomotive and marine diesel engines and the existing remanufacturing requirements. The analysis timeframe is meant to capture both the early period of the program when very few new engines that meet the standards would be in the fleet, and the later period when essentially all engines would meet the new standards.

Table V–7 shows the emissions reductions associated with today's rule. These reductions are discussed in more detail in section II of this preamble and Chapter 3 of the final RIA.

TABLE V–7.—ESTIMATED EMISSIONS REDUCTIONS ASSOCIATED WITH THE NEW LOCOMOTIVE AND MARINE PROGRAM
(Short tons)

| Year | $PM_{2.5}$ | $PM_{10}$ [a] | $NO_X$ | NMHC |
|---|---|---|---|---|
| 2015 | 7,000 | 8,000 | 161,000 | 14,000 |
| 2020 | 14,000 | 15,000 | 371,000 | 26,000 |
| 2030 | 27,000 | 27,000 | 795,000 | 40,000 |
| 2040 | 37,000 | 38,000 | 1,144,000 | 52,000 |
| NPV at 3% | 308,000 | 318,000 | 8,757,000 | 492,000 |
| NPV at 7% | 134,000 | 139,000 | 3,708,000 | 221,000 |

**Note:** (a) Note that, $PM_{2.5}$ is estimated to be 97 percent of the more inclusive $PM_{10}$ emission inventory.

In Section II we generate and present $PM_{2.5}$ inventories since recent research has determined that these are of greater health concern. Similarly, NMHC is estimated to be 93 percent of the more inclusive VOC emission inventory. Traditionally, we have used $PM_{10}$ and NMHC in our cost effectiveness calculations. Since cost effectiveness is a means of comparing control measures to one another, we use $PM_{10}$ and NMHC in our cost effectiveness calculations for comparisons to past control measures.

Using the engineering costs shown in Table V–6 and the emission reductions shown in Table V–7, we can calculate the $/ton associated with today's rule. These are shown in Table V–8. The resultant cost per ton numbers depend on how the engineering costs presented above are allocated to each pollutant. Therefore, as described in section V.A, we have allocated costs as closely as possible to the pollutants for which they are incurred. These allocations are also discussed in detail in Chapter 5 of the final RIA.

TABLE V–8.—FINAL PROGRAM AGGREGATE COST PER TON AND LONG-TERM ANNUAL COST PER TON

| Pollutant | 2006 thru 2040 discounted lifetime cost per ton at 3% | 2006 thru 2040 discounted lifetime cost per ton at 7% | Cost per ton in 2030 | Cost per ton in 2040 |
|---|---|---|---|---|
| $NO_X$+NMHC | $730 | $760 | $690 | $700 |
| PM | 8,440 | 9,620 | 6,620 | 6,360 |

The costs per ton shown in Table V–8 for 2006 through 2040 use the net present value of the annualized engineering costs and emissions reductions associated with the program for the years 2006 through 2040. We have also calculated the costs per ton of emissions reduced in the years 2030 and 2040 using the annual engineering costs and emissions reductions in those specific years. These numbers are also shown in Table V–8. All of the costs per ton include costs and emission reductions that will occur from the locomotive and marine remanufacturing programs.

In comparison with other emissions control programs, we believe that the new locomotive and marine program represents a cost effective strategy for generating substantial $NO_X$+NMHC and PM reductions. This can be seen by comparing the cost effectiveness with the cost effectiveness of a number of standards that EPA has adopted in the past. Table V–9 and Table V–10 summarize the cost per ton of several past EPA actions to reduce emissions of $NO_X$+NMHC and PM from mobile sources.

TABLE V–9.—NEW LOCOMOTIVE AND MARINE PROGRAM COMPARED TO PREVIOUS MOBILE SOURCE PROGRAMS FOR $NO_X$+NMHC

| Program | $/ton $NO_X$+NMHC |
|---|---|
| Today's locomotive & marine standards | $730 |
| Tier 4 Nonroad Diesel (69 FR 39131) | 1,140 |
| Tier 2 Nonroad Diesel (EPA420–R–98–016, Chapter 6) | 710 |
| Tier 3 Nonroad Diesel (EPA420-R–98–016, Chapter 6) | 480 |
| Tier 2 vehicle/gasoline sulfur (65 FR 6774) | 1,580—2,650 |
| 2007 Highway HD (66 FR 5101) | 2,530 |
| 2004 Highway HD (65 FR 59936) | 250—480 |

**Note:** Costs adjusted to 2005 dollars using the Producer Price Index for Total Manufacturing Industries.

TABLE V–10.—NEW LOCOMOTIVE AND MARINE STANDARDS COMPARED TO PREVIOUS MOBILE SOURCE PROGRAMS FOR PM

| Program | $/ton PM |
|---|---|
| Today's locomotive & marine standards | $8,440 |
| Tier 4 Nonroad Diesel (69 FR 39131) | 12,630 |
| Tier 1/Tier 2 Nonroad Diesel (EPA420–R–98–016, Chapter 6) | 2,700 |

TABLE V–10.—NEW LOCOMOTIVE AND MARINE STANDARDS COMPARED TO PREVIOUS MOBILE SOURCE PROGRAMS FOR PM—Continued

| Program | $/ton PM |
|---|---|
| 2007 Highway HD (66 FR 5101) | 15,990 |

**Note:** Costs adjusted to 2005 dollars using the Producer Price Index for Total Manufacturing Industries.

*C. EIA*

We prepared an Economic Impact Analysis (EIA) to estimate the social costs associated with the final control program to estimate the market-level changes in prices and outputs for affected markets, the social costs of the program, and the expected distribution of those costs across stakeholders. As defined in EPA's *Guidelines for Preparing Economic Analyses*, social costs are the value of the goods and services lost by society resulting from (a) the use of resources to comply with and implement a regulation and (b) reductions in output.[178]

A quantitative Economic Impact Model (EIM) was developed to estimate price and quantity changes and total social costs associated with the emission control program.

The EIM is a computer model comprised of a series of spreadsheet modules that simulate the supply and demand characteristics of each of the markets under consideration. The model methodology is firmly rooted in applied microeconomic theory and was developed following the methodology set out in OAQPS's *Economic Analysis Resource Document*.[179] Chapter 7 of the RIA contains a detailed description of the EIM, including the economic theory behind the model and the data used to construct it, the baseline equilibrium market conditions, and the model's behavior parameters. The EIM and the estimated compliance costs presented above are used to estimate the economic impacts of the program. The results of this analysis are summarized below.

The engineering costs we used in the EIA are an earlier version of the estimated compliance costs developed for this final rule. The net present value of the engineering costs used in the EIA is estimated to be approximately $9.17 billion (NPV over the period of analysis at 3 percent discount rate), which is about $240 million less than the net present value of the final estimated engineering costs of about $9.41 billion. This difference is the sum of various cost adjustments, the largest of which are an increase of about $222 million in operating costs for the marine markets and $42 million in the operating costs for the rail markets (NPV over the period of analysis at 3 percent discount rate). These changes are not expected to have a substantial impact on the market level results because the differences are relatively small on an annual basis. For example, operating costs for C2 marine markets increase by about 15 percent in 2030 (from $107 million to $123 million). The previous estimate of $107 million was associated with an increase of approximately 1.1 in the price of marine transportation services and a decrease of approximately 0.5 percent in the quantity of marine transportation services provided. A small increase in operating costs is not likely to change those results by very much. The market-level impacts on the other downstream markets are also likely to be very small and not economically significant. Finally, the difference in compliance costs will not affect the distribution of social costs, which is a function of the price elasticity of supply and demand.

(1) Market Analysis Results

In the market analysis, we estimate how prices and quantities of goods and services affected by the emission control program can be expected to change once the program goes into effect.

The compliance costs associated with the new locomotive and marine diesel engine standards are expected to lead to price and quantity changes in these markets. A summary of the market analysis results is presented in Table V–11 for 2012, which is representative of the first year of the Tier 3 standards; 2016, which is representative of the first year of the Tier 4 standards; and 2030, which represents market impacts of the program in the long-term. Results for all years can be found in Chapter 7 of the RIA.

For all markets, the market impacts for the early years of the program are driven by the transportation markets. In these years, the only direct compliance costs are associated with the remanufacture programs; there are no variable costs associated with the Tier 3 standards and therefore no direct compliance costs. The transportation markets will experience operating costs increases; these will result in small increases in transportation market prices, which will translate to small contractions in demand for locomotives and marine diesel engines and vessels. This is expected exert marginal downward pressure on prices in those markets, of less than 0.1 percent. The production decreases are also expected to be very small, at 0.1 percent or less.

The Tier 4 programs are expected to result in larger market changes due to the direct compliance costs associated with Tier 4 standards and the continuing costs of the remanufacture programs. For the locomotive markets, the price increases in 2016 are expected to be about 4 percent for line haul locomotives and about one percent for switchers in 2016. In the long term (by 2030), prices are expected to increase to about 3.2 percent for line haul locomotives and about 1.5 percent for switchers. These small price increases reflect the relative amount of the compliance costs compared to the total cost of a locomotive or switcher (the engine is only a small part of the total cost of the locomotive). In all cases, the decrease in the quantity of line haul locomotives or switchers produced is expected to be less than 0.5 percent.

In the marine markets, price increases for engines are expected to be larger in 2016, varying from about 9 percent for C1 engines above 600 kW (800 hp) to 17 percent for auxiliary engines and C2 engines above 600 kW.[180] The price increases for vessels that use these engines, however, are smaller (about 2 percent and 7 percent, respectively), reflecting the relative amount of the compliance costs compared to the price of a commercial marine vessel. Production quantities are expected to decrease by less than 4 percent for engines and vessels. The long-term price impacts are similar, with expected price increases of about 12 percent for engines C2 above 600 kW and 7 percent for C1 engines above 600 kW, and vessel price

[178] EPA Guidelines for Preparing Economic Analyses, EPA 240–R–00–003, September 2000, p 113. A copy of this document can be found at *http://yosemite.epa.gov/ee/epa/eed.nsf/webpages/Guidelines.html.*

[179] U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Innovative Strategies and Economics Group, OAQPS Economic Analysis Resource Document, April 1999. A copy of this document can be found at *http://www.epa.gov/ttn/ecas/econdata/Rmanual2/.*

[180] Results presented in this section are by marine engine category in kW; the actual EIA analysis presented in Chapter 7 of the RIA was performed using marine engine categories by hp.

increases of less than 5 percent. Long-term production quantity decreases are expected to be less than 3 percent.

TABLE V–11.—ESTIMATED MARKET IMPACTS FOR 2012, 2016, 2030

(2005$)

| Market [c] | Average variable engineering cost per unit | Change in price | | Change in quantity | |
|---|---|---|---|---|---|
| | | Absolute | Percent | Absolute | Percent |
| 2012 | | | | | |
| Rail Sector: | | | | | |
| Locomotives | $0 | −535 | −0.03 | −1 | −0.1 |
| Switcher/Passenger | 0 | −348 | −0.03 | 0 | −0.1 |
| Transportation Services | NA | [a] NA | 0.1 | [a] NA | −0.1 |
| Marine Sector | | | | | |
| Engines: | | | | | |
| Auxiliary >600 kW | 0 | −47 | 0.00 | 0 | −0.1 |
| C1>600 kW | 0 | −8 | 0.00 | 0 | 0.0 |
| C2>600 kW | 0 | −139 | −0.03 | 0 | −0.1 |
| Other marine | 0 | 0 | 0.00 | 0 | 0.0 |
| Vessels | | | | | |
| C1>600 kW | 0 | −174 | −0.01 | 0 | 0.0 |
| C2>600 kW | 0 | −2,419 | −0.07 | 0 | −0.1 |
| Other marine | 0 | −3 | 0.00 | 1 | 0.0 |
| Transportation Services | NA | [a] NA | 0.2 | [a] NA | −0.1 |
| 2016 | | | | | |
| Rail Sector: | | | | | |
| Locomotives | 84,274 | 83,227 | 4.2 | −1 | −0.1 |
| Switcher/Passenger | 14,175 | 13,494 | 1.0 | 0 | −0.1 |
| Transportation Services | NA | [a] NA | 0.3 | [a] NA | −0.1 |
| Marine Sector | | | | | |
| Engines: | | | | | |
| Auxiliary >600 kW | 37,097 | 35,569 | 17.1 | −11 | −3.4 |
| C1>600 kW | 18,483 | 16,384 | 8.5 | −15 | −3.7 |
| C2>600 kW | 71,806 | 71,602 | 16.3 | 0 | −0.2 |
| Other marine | 0 | 0 | 0.00 | 0 | 0.0 |
| Vessels: | | | | | |
| C1>600 kW | 8,277 | [b] 34,043 | 2.1 | −14 | −3.7 |
| C2>600 kW | 12,107 | [b] 255,143 | 7.0 | 0 | −0.2 |
| Other marine | 0 | −4 | 0.00 | −1 | 0.0 |
| Transportation Services | NA | [a] NA | 0.4 | [a] NA | −0.2 |
| 2030 | | | | | |
| Rail Sector: | | | | | |
| Locomotives | 65,343 | 63,019 | 3.2 | −4 | −0.3 |
| Switcher/Passenger | 21,139 | 19,628 | 1.5 | −1 | −0.3 |
| Transportation Services | NA | [a] NA | 0.6 | [a] NA | −0.3 |
| Marine Sector | | | | | |
| Engines: | | | | | |
| Auxiliary >600 kW | 28,359 | 27,021 | 13.0 | −11 | −2.8 |
| C1>600 kW | 14,131 | 12,479 | 6.5 | −13 | −2.9 |
| C2>600 kW | 54,893 | 54,264 | 12.3 | −1 | −0.5 |
| Other marine | 0 | −1 | 0.0 | 0 | 0.0 |
| Vessels: | | | | | |
| C1>600 kW | 6,933 | [b] 25,768 | 1.6 | −12 | −2.9 |
| C2>600 kW | 10,169 | [b] 164,774 | 5.1 | 0 | −0.5 |
| Other marine | 0 | −12 | 0.0 | −4 | 0.0 |
| Transportation Services | NA | [a] NA | 1.1 | [a] NA | −0.5 |

**Notes:**

[a] The prices and quantities for transportation services are normalized ($1 for 1 unit of services provided) and therefore it is not possible to estimate the absolute change price or quantity; see 7.3.1.5.

[b] The estimated vessel impacts include the impacts of direct vessel compliance costs and the indirect impacts of engine markets for both propulsion and auxiliary engines. See Chapter 7 of the RIA.

[c] Results presented in this table are by marine engine category in kW; the actual EIA analysis presented in Chapter 7 of the RIA was performed using marine engine categories by hp.

(2) Economic Welfare Analysis

In the economic welfare analysis, we look at the total social costs associated with the program and their distribution across key stakeholders.

The total estimated social costs of the program are about $221 million, $284 million, $332 million and $738 million for 2012, 2016, 2020, and 2030. These estimated social costs are nearly identical to the total compliance costs for those years. The slight reduction in social costs when compared to compliance costs occurs because the total engineering costs do not reflect the decreased sales of locomotives, engines and vessels that are incorporated in the

total social costs. Results for all years are presented in Chapter 7 of the RIA.

Table V–12 shows how total social costs are expected to be shared across stakeholders for selected years.

We estimate the net social costs of the program to be approximately $738 million in 2030.[181] The rail sector is expected to bear about 62.5 percent of the social costs of the program in 2030, and the marine sector is expected to bear about 37.5 percent. In each of these two sectors, these social costs are expected to be born primarily by producers and users of locomotive and marine transportation services (about 98 percent). The remaining 2 percent is expected to be borne by locomotive, marine engine, and marine vessel manufacturers and fishing and recreational users.

TABLE V–12.—SUMMARY OF ESTIMATED SOCIAL COSTS FOR 2012, 2016, 2020, 2030 (2005$, $MILLION)

| Stakeholder group [a] | 2012 | | 2016 | |
|---|---|---|---|---|
| | Surplus change ($) | Percent | Surplus change ($) | Percent |
| Locomotives: | | | | |
| Locomotive producers | −35.1 | 15.9 | −8.3 | 2.9 |
| Line haul producers | −27.8 | 12.6 | −0.9 | 0.3 |
| Switcher/Passenger producers | −7.2 | 3.3 | −7.4 | 2.6 |
| Rail transportation service providers | −21.4 | 9.7 | −43.4 | 15.3 |
| Rail transportation service consumers | −68.4 | 31.0 | −138.9 | 48.8 |
| Total locomotive sector | −124.9 | 56.6 | −190.6 | 67.0 |
| Marine: | | | | |
| Marine engine producers | −45.8 | 20.7 | −2.1 | 0.7 |
| Auxiliary > 600 kW | −16.0 | 7.3 | −0.5 | 0.2 |
| C1 > 600 kW | −19.0 | 8.6 | −1.6 | 0.5 |
| C2 > 600 kW | −10.7 | 4.9 | 0.0 | 0.0 |
| Other marine | 0.0 | 0.0 | 0.0 | 0.0 |
| Marine vessel producers | −0.3 | 0.1 | −15.8 | 5.6 |
| C1 > 600 kW | −0.1 | 0.0 | −13.5 | 4.7 |
| C2 > 600 kW | −0.1 | 0.1 | −2.2 | 0.8 |
| Other marine | −0.1 | 0.0 | −0.1 | 0.0 |
| Recreational and fishing vessel consumers | 0.0 | 0.0 | 0.0 | 0.0 |
| Marine transportation service providers | −11.9 | 5.4 | −18.1 | 6.4 |
| Marine transportation service consumers | −38.1 | 17.3 | −57.9 | 20.3 |
| Auxiliary engines < 600 kW | 0.0 | 0.0 | 0.0 | 0.0 |
| Total marine sector | −96.1 | 43.5 | −93.8 | 33.0 |
| Total Program | −221.0 | ..... | −284.4 | ..... |

| Stakeholder group | 2020 | | 2030 | |
|---|---|---|---|---|
| | Surplus change ($) | Percent | Surplus change ($) | Percent |
| Locomotives: | | | | |
| Locomotive producers | −1.1 | 0.3 | −3.1 | 0.4 |
| Line haul producers | −1.0 | 0.3 | −2.7 | 0.4 |
| Switcher/Passenger producers | −0.1 | 0.0 | −0.4 | 0.1 |
| Rail transportation service providers | −46.4 | 14.0 | −109.0 | 14.8 |
| Rail transportation service consumers | −148.6 | 44.8 | −348.9 | 47.3 |
| Total locomotive sector | −196.1 | 59.1 | −461.1 | 62.5 |
| Marine: | | | | |
| Marine engine producers | −1.8 | 0.5 | −2.0 | 0.3 |
| Auxiliary > 600 kW | −0.4 | 0.1 | −0.5 | 0.1 |
| C1 > 600 kW | −1.3 | 0.4 | −1.4 | 0.2 |
| C2 > 600 kW | 0.0 | 0.0 | −0.1 | 0.0 |
| Other marine | 0.0 | 0.0 | 0.0 | 0.0 |
| Marine vessel producers | −10.3 | 3.1 | −9.2 | 1.2 |
| C1 > 600 kW | −8.8 | 2.7 | −8.2 | 1.1 |
| C2 > 600 kW | −1.3 | 0.4 | −0.7 | 0.1 |
| Other marine | −0.1 | 0.0 | −0.3 | 0.0 |
| Recreational and fishing vessel consumers | 0.0 | 0.0 | 0.0 | 0.0 |
| Marine transportation service providers | −29.5 | 8.9 | −63.3 | 8.6 |
| Marine transportation service consumers | −94.4 | 28.4 | −202.5 | 27.4 |
| Auxiliary engines < 600 kW | 0.0 | 0.0 | 0.0 | 0.0 |
| Total marine sector | −135.9 | 40.9 | −277.0 | 37.5 |
| Total Program | −332.0 | ..... | −738.1 | ..... |

**Note:** [a] Results presented in this table are by marine engine category in kW; the actual EIA analysis presented in Chapter 7 of the RIA was performed using marine engine categories by hp.

[181] All estimates presented in this section are in 2005$.

Table V–13 shows the distribution of total surplus losses for the program from 2007 through 2040. This table shows that the rail sector is expected to bear about 62 percent of the total program social costs through 2040 (NPV 3%), and that most of the costs are expected to be borne by the rail transportation consumers. The marine sector is expected to bear about 38 percent of the total program social costs through 2040 (NPV 3%), most of which are also expected to be borne by the marine transportation consumers. This is consistent with the structure of the program, which leads to high compliance costs for the rail marine transportation sectors.

TABLE V–13. ESTIMATED NET SOCIAL COSTS 2007 THROUGH 2040 BY STAKEHOLDER ($MILLION, 2005$)

| Stakeholder Groups [a] | Surplus change | Percent of total surplus | Surplus change | Percent of total surplus |
|---|---|---|---|---|
| Locomotives | NPV 3% | ..... | NPV 7% | |
| Locomotive producers | −$221.1 | 2.4 | −$160.4 | 3.8 |
| Line Haul | −172.2 | | −124.5 | |
| Switcher/Passenger | −48.9 | | −35.9 | |
| Rail transportation service providers | −1,302.7 | 14.2 | −568.6 | 13.6 |
| Rail transportation service consumers | −4,168.7 | 45.6 | −1,819.5 | 43.5 |
| Total locomotive sector | −5,692.6 | 62.6 | −2,548.5 | 61.0 |
| Marine | | | | |
| Marine engine producers | −307.5 | 3.4 | −229.4 | 5.5 |
| Auxiliary > 600 kW | −87.3 | | −64.0 | |
| C1 > 600 kW | −106.8 | | −74.6 | |
| C2 > 600 kW | −56.8 | | −42.6 | |
| Other marine | −56.7 | | −48.1 | |
| Marine vessel producers | −150.0 | 1.6 | −72.5 | 1.7 |
| C1 > 600 kW | −126.8 | | −60.8 | |
| C2 > 600 kW | −19.7 | | −10.2 | |
| Other marine | −3.5 | | −1.5 | |
| Recreational and fishing vessel consumers | 0.2 | | 0.1 | |
| Marine transportation service providers | −704.6 | 7.7 | −308.4 | 7.4 |
| Marine transportation service consumers | −2,254.7 | 24.6 | −986.9 | 23.6 |
| Auxiliary Engines <600 kW | −40.2 | 0.4 | −34.2 | −0.8 |
| Total marine sector | 3,456.7 | 37.8 | −1,631.3 | 39.0 |
| Total Program | −9.149.2 | | −4,179.8 | |

**Note:** [a] Results presented in this table are by marine engine category in kW; the actual EIA analysis presented in Chapter 7 of the RIA was performed using marine engine categories by hp.

(3) What Are the Significant Limitations of the Economic Impact Analysis?

Every economic impact analysis examining the market and social welfare impacts of a regulatory program is limited to some extent by limitations in model capabilities, deficiencies in the economic literatures with respect to estimated values of key variables necessary to configure the model, and data gaps. In this EIA, there three potential sources of uncertainty: (1) Uncertainty resulting from the way the EIM is designed, particularly from the use of a partial equilibrium model; (2) uncertainty resulting from the values for key model parameters, particularly the price elasticity of supply and demand; and (3) uncertainty resulting from the values for key model inputs, particularly baseline equilibrium price and quantities.

Uncertainty associated with the economic impact model structure arises from the use of a partial equilibrium approach, the use of the national level of analysis, and the assumption of perfect competition. These features of the model mean it does not take into account impacts on secondary markets or the general economy, and it does not consider regional impacts. The results may also be biased to the extent that firms have some control over market prices, which would result in the modeling over-estimating the impacts on producers of affected goods and services.

The values used for the price elasticities of supply and demand are critical parameters in the EIM. The values of these parameters have an impact on both the estimated change in price and quantity produced expected as a result of compliance with the new standards and on how the burden of the social costs will be shared among producer and consumer groups. In selecting the values to use in the EIM it is important that they reflect the behavioral responses of the industries under analysis.

Finally, uncertainty in measurement of data inputs can have an impact on the results of the analysis. This includes measurement of the baseline equilibrium prices and quantities and the estimation of future year sales. In addition, there may be uncertainty in how similar engines and equipment were combined into smaller groups to facilitate the analysis. There may also be uncertainty in the compliance cost estimations.

While variations in the above model parameters may affect the distribution of social costs among stakeholders and the estimated market impacts, they will not affect the total social costs of the program. This is because the total social costs are directly related to the total compliance costs. To explore the effects of key sources of uncertainty on the distribution of social costs and on estimated price and quantity impacts, we performed a sensitivity analysis in which we examine the results of using alternative values for several model parameters. The results of these analyses are contained in Appendix 7H of the RIA prepared for this rule.

Despite these uncertainties, we believe this economic impact analysis provides a reasonable estimate of the expected market impacts and social welfare costs of the new standards in future. Acknowledging benefits omissions and uncertainties, we present a best estimate of the social costs based on our interpretation of the best available scientific literature and methods supported by EPA's Guidelines for Preparing Economic Analyses and

the OAQPS Economic Analysis Resource Document.

## VI. Benefits

This section presents our analysis of the health and environmental benefits that are estimated to occur as a result of the final locomotive and marine engine standards throughout the period from initial implementation through 2030. Nationwide, the engines that are subject to the emission standards in this rule are a significant source of mobile source air pollution. The standards will reduce exposure to $NO_X$ and direct PM emissions and help avoid a range of adverse health effects associated with ambient $PM_{2.5}$ and ozone levels. In addition, the standards will help reduce exposures to diesel PM exhaust, various gaseous hydrocarbons and air toxics. As described below, the reductions in PM and ozone from the standards are expected to result in significant reductions in premature deaths and other serious human health effects, as well as other important public health and welfare effects.

EPA typically quantifies and monetizes PM- and ozone-related impacts in its regulatory impact analyses (RIAs) when possible. The RIA for the proposal for this rulemaking only quantified benefits from PM; in the current RIA we quantify and monetize the ozone-related health and environmental impacts associated with the final rule. The science underlying the analysis is based on the current ozone criteria document.[182] To estimate the incidence and monetary value of the health outcomes associated with this final rule, we used health impact functions based on published epidemiological studies, and valuation functions derived from the economics literature.[183] Key health endpoints analyzed include premature mortality, hospital and emergency room visits, school absences, and minor restricted activity days. The analytic approach to characterizing uncertainty is consistent with the analysis used in the RIA for the proposed O3 NAAQS.

The benefits modeling is based on peer-reviewed studies of air quality and health and welfare effects associated with improvements in air quality and peer-reviewed studies of the dollar values of those public health and welfare effects. These methods are consistent with benefits analyses performed for the recent analysis of the proposed Ozone NAAQS and the final PM NAAQS analysis.[184, 185] They are described in detail in the RIAs prepared for those rules.

The range of PM benefits associated with the final standards is estimated based on risk reductions estimated using several sources of PM-related mortality effect estimates. In order to provide an indication of the sensitivity of the benefits estimates to alternative assumptions about PM mortality risk reductions, in Chapter 6 of the RIA we present a variety of benefits estimates based on two epidemiological studies (including the ACS study and the Six Cities Study) and the recent PM mortality expert elicitation.[186] EPA intends to ask the Science Advisory Board to provide additional advice as to which scientific studies should be used in future RIAs to estimate the benefits of reductions in PM-related premature mortality.

The range of ozone benefits associated with the final standards is also estimated based on risk reductions estimated using several sources of ozone-related mortality effect estimates. There is considerable uncertainty in the magnitude of the association between ozone and premature mortality. This analysis presents four alternative estimates for the association based upon different functions reported in the scientific literature. We use the National Morbidity, Mortality and Air Pollution Study (NMMAPS),[187] which was used as the primary basis for the risk analysis in the ozone Staff Paper[188] and reviewed by the Clean Air Science Advisory Committee (CASAC).[189] We also use three studies that synthesize ozone mortality data across a large number of individual studies.[190, 191, 192] Note that there are uncertainties within each study that are not fully captured by this range of estimates.

Recognizing that additional research is necessary to clarify the underlying mechanisms causing these effects, we also consider the possibility that the observed associations between ozone and mortality may not be causal in nature. EPA has requested advice from the National Academy of Sciences on how best to quantify uncertainty in the relationship between ozone exposure and premature mortality in the context of quantifying benefits associated with ozone control strategies.

The range of total ozone- and PM-related benefits associated with the final standards is presented in Table VI–1. We present total benefits based on the PM-and ozone-related premature mortality function used. The benefits ranges therefore reflect the addition of each estimate of ozone-related premature mortality (each with its own row in Table VI–1) to estimates of PM-related premature mortality, derived from either the epidemiological literature or the expert elicitation. The estimates in Table VI–1, and all monetized benefits presented in this section, are in year 2006 dollars.

[182] U.S. Environmental Protection Agency (2006) Air quality criteria for ozone and related photochemical oxidants (second external review draft) Research Triangle Park, NC: National Center for Environmental Assessment; report no. EPA/600R–05/004aB–cB, 3v. Available: *http://cfpub.epa.gov/ncea/cfm/recordisplay.cfm?deid=137307* [March 2006]

[183] Health impact functions measure the change in a health endpoint of interest, such as hospital admissions, for a given change in ambient ozone or PM concentration.

[184] U.S. Environmental Protection Agency. August 2007. Proposed Regulatory Impact Analysis (RIA) for the Proposed National Ambient Air Quality Standards for Ozone. Prepared by: Office of Air and Radiation. Available at *http://www.epa.gov/ttn/ecas/ria.html#ria2007*.

[185] U.S. Environmental Protection Agency. October 2006. Final Regulatory Impact Analysis (RIA) for the Proposed National Ambient Air Quality Standards for Particulate Matter. Prepared by: Office of Air and Radiation. Available at *http://www.epa.gov/ttn/ecas/ria.html*.

[186] Industrial Economics, Incorporated (IEc). 2006. Expanded Expert Judgment Assessment of the Concentration-Response Relationship Between $PM_{2.5}$ Exposure and Mortality. Peer Review Draft. Prepared for: Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, Research Triangle Park, NC. August.

[187] Bell, M.L., et al. 2004. Ozone and short-term mortality in 95 US urban communities, 1987–2000. JAMA, 2004. 292(19): p. 2372–8.

[188] U.S. EPA (2007) Review of the National Ambient Air Quality Standards for Ozone, Policy Assessment of Scientific and Technical Information. OAQPS Staff Paper. EPA–452/R–07–003. This document is available in Docket EPA–HQ–OAR–2003–0190. This document is available electronically at: *http:www.epa.gov/ttn/naaqs/standard/ozone/s_o3_cr_sp.html*.

[189] CASAC (2007). Clean Air Scientific Advisory Committee's (CASAC) Review of the Agency's Final Ozone Staff Paper. EPA–CASAC–07–002. March 26.

[190] Bell, M.L., F. Dominici, and J.M. Samet. A meta-analysis of time-series studies of ozone and mortality with comparison to the national morbidity, mortality, and air pollution study. Epidemiology, 2005. 16(4): p. 436–45.

[191] Ito, K., S.F. De Leon, and M. Lippmann. Associations between ozone and daily mortality: analysis and meta-analysis. Epidemiology, 2005. 16(4): p. 446–57.

[192] Levy, J.I., S.M. Chemerynski, and J.A. Sarnat. 2005. Ozone exposure and mortality: an empiric bayes metaregression analysis. Epidemiology, 2005. 16(4): p. 458–68.

TABLE VI–1.—ESTIMATED 2030 MONETIZED PM- AND OZONE-RELATED HEALTH BENEFITS OF THE FINAL LOCOMOTIVE AND MARINE ENGINE STANDARDS [a]

| Premature ozone mortality function or assumption | Reference | Mean total benefits (billions, 2006$, 3% discount rate) [c, d] | Mean total benefits (billions, 2006$, 7% discount rate) [c, d] |
|---|---|---|---|
| **2030 Total Ozone and PM Benefits—PM Mortality Derived From American Cancer Society Analysis [a]** | | | |
| NMMAPS | Bell et al., 2004 | $9.7 | $8.9. |
| Meta-analysis | Bell et al., 2005 | $11 | $9.8. |
| | Ito et al., 2005 | $11 | $10. |
| | Levy et al., 2005 | $11 | $10. |
| Assumption that association is not causal | | $9.2 | $8.4. |
| **2030 Total Ozone and PM Benefits—PM Mortality Derived From Expert Elicitation [b]** | | | |
| NMMAPS | Bell et al., 2004 | $5.2 to $37 | $4.8 to $34. |
| Meta-analysis | Bell et al., 2005 | $6.2 to $38 | $5.8 to $35. |
| | Ito et al., 2005 | $6.7 to $39 | $6.3 to $35. |
| | Levy et al., 2005 | $6.7 to $39 | $6.4 to $35. |
| Assumption that association is not causal | | $4.7 to $37 | $4.4 to $33. |

**Notes:**

[a] Total includes ozone and $PM_{2.5}$ benefits. Range was developed by adding the estimate from the ozone premature mortality function to the estimate of $PM_{2.5}$-related premature mortality derived from the ACS study (Pope et al., 2002).

[b] Total includes ozone and $PM_{2.5}$ benefits. Range was developed by adding the estimate from the ozone premature mortality function to both the lower and upper ends of the range of the $PM_{2.5}$ premature mortality functions characterized in the expert elicitation. The effect estimates of five of the twelve experts included in the elicitation panel fall within the empirically-derived range provided by the ACS and Six-Cities studies. One of the experts fall below this range and six of the experts are above this range. Although the overall range across experts is summarized in this table, the full uncertainty in the estimates is reflected by the results for the full set of 12 experts. The twelve experts' judgments as to the likely mean effect estimate are not evenly distributed across the range illustrated by arraying the highest and lowest expert means.

[c] Note that total benefits presented here do not include a number of unquantified benefits categories. A detailed listing of unquantified health and welfare effects is provided in Table VI–6.

[d] Results reflect the use of both a 3 and 7 percent discount rate, as recommended by EPA's Guidelines for Preparing Economic Analyses and OMB Circular A–4. Results are rounded to two significant digits for ease of presentation and computation.

(1) Quantified Human Health and Environmental Effects of the Final Standards

In this section we discuss the ozone and $PM_{2.5}$ health and environmental impacts of the final standards. We discuss how these impacts are monetized in the next section. It should be noted that the emission control scenarios used in the air quality and benefits modeling are slightly different than the final emission control program. The differences reflect further refinements of the regulatory program since we performed the air quality modeling for this rule. Emissions and air quality modeling decisions are made early in the analytical process. Chapter 3 of the RIA describes the changes in the inputs and resulting emission inventories between the preliminary assumptions used for the air quality modeling and the final emission control scenario.

**Estimated Ozone and PM Impacts**

To model the ozone and PM air quality benefits of this rule we used the Community Multiscale Air Quality (CMAQ) model. CMAQ simulates the numerous physical and chemical processes involved in the formation, transport, and deposition of particulate matter. This model is commonly used in regional applications to estimate the ozone and PM reductions expected to occur from a given set of emissions controls. The meteorological data input into CMAQ are developed by a separate model, the Penn State University / National Center for Atmospheric Research Mesoscale Model, known as MM5. The modeling domain covers the entire 48-State U.S., as modeled in proposed ozone NAAQS analysis.[193] The grid resolution for the modeling domain was 12 x 12 km.

While this rule will reduce ozone levels generally and provide national ozone-related health benefits, this is not always the case at the local level. Due to the complex photochemistry of ozone production, reductions in $NO_X$ emissions lead to both the formation and destruction of ozone, depending on the relative quantities of $NO_X$, VOC, and ozone catalysts such as the OH and $HO_2$ radicals. In areas dominated by fresh emissions of $NO_X$, ozone catalysts are removed via the production of nitric acid which slows the ozone formation rate. Because $NO_X$ is generally depleted more rapidly than VOC, this effect is usually short-lived and the emitted $NO_X$ can lead to ozone formation later and further downwind. The terms ''$NO_X$ disbenefits'' or ''ozone disbenefits'' refer to the ozone increases that can result from $NO_X$ emissions reductions in these localized areas. According to the North American Research Strategy for Tropospheric Ozone (NARSTO) Ozone Assessment, these disbenefits are generally limited to small regions within specific urban cores and are surrounded by larger regions in which $NO_X$ control is beneficial.[194] For this analysis, we observed two urban areas that, to some degree, experience ozone disbenefits: Southern California and Chicago.

Marginal changes in ozone in these areas are much more dependent upon baseline air quality conditions than PM due to nonlinearities present in the chemistry of ozone formation. A marginal decrease in $NO_X$ emissions modeled on its own in these areas, as

[193] See the Regulatory Impact Analysis for the Proposed Ozone NAAQS (EPA–452/R–07–008, July 2007). This document is available at *http://www.epa.gov/ttn/ecas/ria.html#ria2007.*

[194] The NARSTO Assessment Document synthesizes the scientific understanding of ozone pollution, giving special consideration to behavior on expanded scales over the North American continent, encompassing Canada, the United States, and Mexico. Successive drafts of this Assessment Document experienced progressive stages of review by its authors and by outside peers, and transcripts were recorded containing the review comments and the corresponding actions. This included an external review by the NRC, the comments of which were addressed and incorporated in the final draft. NARSTO, 2000. An Assessment of Tropospheric Ozone Pollution—A North American Perspective. NARSTO Management Office (Envair), Pasco, Washington. *http://narsto.org/*

was done for this analysis, may yield a very different ambient ozone concentration than if it were modeled in combination with other planned or future controls. For example, recent California SIP modeling indicates that with a combined program of national and local controls, California can reach ozone attainment by 2024 through a mixture of substantial $NO_X$ (and VOC) reductions.[195] In areas prone to ozone disbenefits, our ability to draw conclusions based on air quality modeling conducted for the final rule is limited because the yet-to-occur emission reductions in these areas are not accounted for in our analytical approach. Within these regions, it is expected that the additional $NO_X$ reductions from SIP-based controls would lead to fewer ozone disbenefits from the marginal changes modeled here. More detailed information about the air quality modeling conducted for this analysis is included in the air quality modeling technical support document (TSD), which is located in the docket for this rule.

The modeled ambient air quality data serves as an input to the Environmental Benefits Mapping and Analysis Program (BenMAP).[196] BenMAP is a computer program developed by EPA that integrates a number of the modeling elements used in previous Regulatory Impact Analyses (e.g., interpolation functions, population projections, health impact functions, valuation functions, analysis and pooling methods) to translate modeled air concentration estimates into health effects incidence estimates and monetized benefits estimates.

The addition of ozone mortality to our health impacts analysis has led to an increased focus on the issue of ozone disbenefits for two related reasons: (1) The monetized value of ozone-related benefits, in terms of ozone's contribution to total rule-related benefits, has increased due to the inclusion of ozone mortality; and (2) The overall ozone impacts of $NO_X$ reductions in certain geographic regions of the U.S., when modeled on the margin, may be negative.

Figure 1 shows the diurnal pattern of ozone concentrations in the 2030 baseline and post-control scenarios for a grid cell in Orange County, CA during July. From this figure it is clear that the disbenefits (points when the control case ozone levels are higher than the baseline) are occurring primarily during nighttime hours when ozone is generally low.

This diurnal pattern means that the extent of the disbenefits is not as large as one might have thought. Our conversion from using a 24-hour metric to using the maximum 8-hour average metric in the ozone mortality studies (see page 6–4 and the health impacts section) excludes the nighttime hours when $NO_X$-related disbenefits are most likely to occur.

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[195] SCAQMD (2007). Final 2007 Air Quality Management Plan. Available at: *http://www.aqmd.gov/aqmp/07aqmp/index.html*. Accessed November 8, 2007.

[196] Information on BenMAP, including downloads of the software, can be found at *http://www.epa.gov/air/benmap*.

**Figure 2: July 2030 time-series of CMAQ base and control modeling for Orange County, CA**

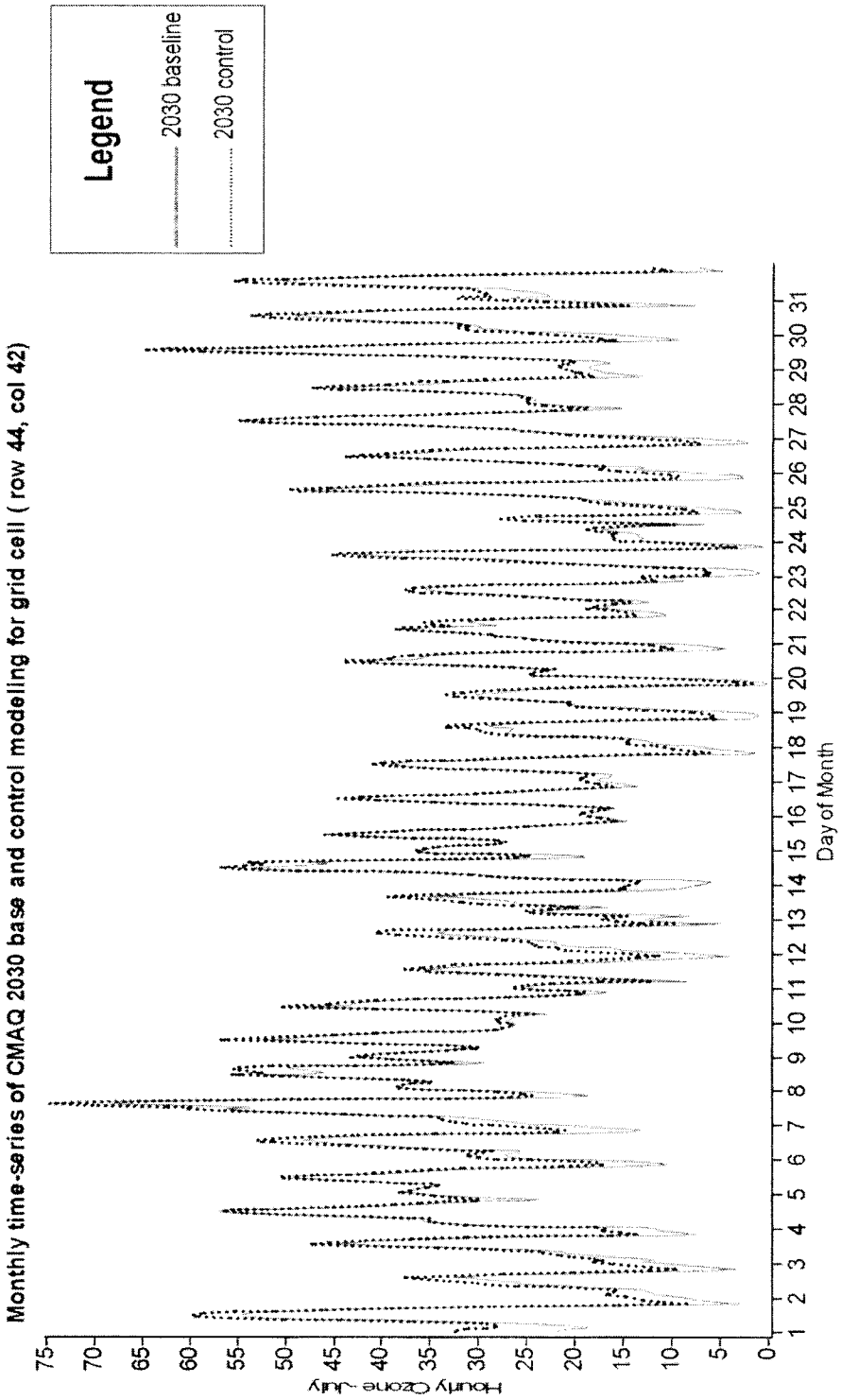


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Table VI–2 presents the estimates of ozone- and PM-related health impacts for the years 2020 and 2030, which are based on the modeled air quality changes between a baseline, pre-control scenario and a post-control scenario reflecting the final emission control strategy.

The use of two sources of PM mortality reflects two different sources of information about the impact of reductions in PM on reduction in the risk of premature death, including both the published epidemiology literature and an expert elicitation study conducted by EPA in 2006. In 2030, based on the estimate provided by the ACS study, we estimate that PM-related emission reductions related to the final rule will result in 1,100 fewer premature fatalities annually. The number of premature mortalities avoided increases to 2,600 when based on the Six Cities study. When the range of expert opinion is used, we estimate between 500 and 4,900 fewer premature mortalities in 2030. We also estimate 680 fewer cases of chronic bronchitis, 2,500 fewer non-fatal heart attacks, 870 fewer hospitalizations (for respiratory and cardiovascular disease combined), 720,000 fewer days of restricted activity due to respiratory illness and approximately 120,000 fewer work-loss days. This analysis projects substantial health improvements for children from reduced upper and lower respiratory illness, acute bronchitis, and asthma attacks. These results are based on an assumed cutpoint in the long-term mortality concentration-response functions at 10 $\mu g/m^3$, and an assumed cutpoint in the short-term morbidity concentration-response functions at 10 $\mu g/m^3$. The impact using four alternative cutpoints (3 $\mu g/m^3$, 7.5 $\mu g/m^3$, 12 $\mu g/m^3$, and 14 $\mu g/m^3$) has on $PM_{2.5}$-related mortality incidence estimation is presented in Chapter 6 of the RIA.

For ozone, we estimate a range of between 54–250 fewer premature mortalities as a result of the final rule in 2030, assuming that there is a causal relationship between ozone exposure and mortality. We also estimate that by 2030, the final rule will result in over 500 avoided respiratory hospital admissions and emergency room visits, 290,000 fewer days of restricted activity due to respiratory illness, and 110,000 school loss days avoided.

TABLE VI–2.—ESTIMATED REDUCTION IN INCIDENCE OF ADVERSE HEALTH EFFECTS RELATED TO THE FINAL LOCOMOTIVE AND MARINE ENGINE STANDARDS [a]

| | | 2020 | 2030 |
|---|---|---|---|
| Health Effect | | Mean Incidence Reduction (5th–95th percentile) | |
| PM-Related Endpoints | | | |
| Premature Mortality—Derived from Epidemiology Literature. | Adult, age 30+—ACS cohort study (Pope et al., 2002). | 490 (190–790) | 1,100 (440–1,800) |
| | Adult, age 25+—Six-Cities study (Laden et al., 2006). | 1,100 (610–1,600) | 2,600 (1,400–3,700) |
| | Infant, age <1 year—Woodruff et al. 1997. | 1 (1–2) | 2 (1–3) |
| Premature Mortality—Derived from Expert Elicitation [b]. | Adult, age 25+—Lower Bound (Expert K). | 220 (0–1,100) | 500 (0–2,400) |
| | Adult, age 25+—Upper Bound (Expert E). | 2,200 (1,100–3,300) | 4,900 (2,500–7,500) |
| Chronic bronchitis (adult, age 26 and over) | | 310 (56–560) | 680 (130–1,200) |
| Acute myocardial infarction (adults, age 18 and older) | | 1,000 (550–1,500) | 2,500 (1,300–3,600) |
| Hospital admissions—respiratory (all ages) [c] | | 120 (58–170) | 270 (130–400) |
| Hospital admissions—cardiovascular (adults, age >18) [d] | | 240 (150–330) | 600 (380–820) |
| Emergency room visits for asthma (age 18 years and younger) | | 410 (240–580) | 890 (520–1,300) |
| Acute bronchitis (children, age 8–12) | | 1,000 (−35–2,100) | 2,300 (−77–4,600) |
| Lower respiratory symptoms (children, age 7–14) | | 9,200 (4,400–14,000) | 20,000 (9,700–31,000) |
| Upper respiratory symptoms (asthmatic children, age 9–18) | | 6,700 (2,100–11,000) | 15,000 (4,600–25,000) |
| Asthma exacerbation (asthmatic children, age 6–18) | | 8,400 (920–24,000) | 19,000 (2,000–53,000) |
| Work loss days (adults, age 18–65) | | 59,000 (51,000–67,000) | 120,000 (110,000–140,000) |
| Minor restricted-activity days (adults, age 18–65) | | 350,000 (290,000–400,000) | 720,000 (610,000–830,000) |
| Ozone-Related Endpoints | | | |
| Premature Mortality, All ages—Derived from NMMAPS. | Bell et al., 2004 | 13 (−22–49) | 54 (−43–150) |
| Premature Mortality, All ages—Derived from Meta-analyses. | Bell et al., 2005 | 44 (−47–140) | 180 (−69–420) |
| | Ito et al., 2005 | 60 (−34–150) | 240 (−14–500) |
| | Levy et al., 2005 | 62 (−14–140) | 250 (44–450) |
| Premature Mortality—Assumption that association between ozone and mortality is not causal. | | 0 | 0 |
| Hospital admissions—respiratory causes (children, under 2; adult, 65 and older) [e]. | | 14 (−150–170) | 260 (−350–890) |
| Emergency room visit for asthma (all ages) | | 69 (−89–270) | 250 (−190–830) |
| Minor restricted activity days (adults, age 18–65) | | 84,000 (43,000–120,000) | 290,000 (150,000–430,000) |
| School absence days | | 33,000 (−17,000–77,000) | 110,000 (−15,000–240,000) |

**Notes:**

(a) Incidence is rounded to two significant digits. PM and ozone estimates represent impacts from the final standards nationwide.
(b) Based on effect estimates derived from the full-scale expert elicitation assessing the uncertainty in the concentration-response function for PM-related premature mortality (IEc, 2006).[197]
The effect estimates of five of the twelve experts included in the elicitation panel fall within the empirically-derived range provided by the ACS and Six-Cities studies. One of the experts fall below this range and six of the experts are above this range. Although the overall range across experts is summarized in this table, the full uncertainty in the estimates is reflected by the results for the full set of 12 experts. The twelve experts' judgments as to the likely mean effect estimate are not evenly distributed across the range illustrated by arraying the highest and lowest expert means.
(c) Respiratory hospital admissions for PM include admissions for chronic obstructive pulmonary disease (COPD), pneumonia, and asthma.
(d) Cardiovascular hospital admissions for PM include total cardiovascular and subcategories for ischemic heart disease, dysrhythmias, and heart failure.
(e) Respiratory hospital admissions for ozone include admissions for all respiratory causes and subcategories for COPD and pneumonia.

(2) Monetized Benefits

Table VI–3 presents the estimated monetary value of reductions in the incidence of health and welfare effects. Tables VI–4 and VI–5 present the total annual PM- and ozone-related health benefits, which are estimated to be between $9.2 and $11 billion in 2030, assuming a 3 percent discount rate, or between $8.4 and $10 billion, assuming a 7 percent discount rate, using the ACS-derived estimate of PM-related premature mortality (Pope et al., 2002) and the range of ozone-related premature mortality studies derived from the epidemiological literature. The range of benefits expands to between $4.7 and $39 billion, assuming a 3 percent discount rate, when the estimate includes the opinions of outside experts on PM and the risk of premature death, or between $4.4 and $35 billion, assuming a 7 percent discount rate. All monetized estimates are stated in 2006$. These estimates account for growth in real gross domestic product (GDP) per capita between the present and the years 2020 and 2030. As the tables indicate, total benefits are driven primarily by the reduction in premature fatalities each year.

The above estimates of monetized benefits include only one example of non-health related benefits. Changes in the ambient level of $PM_{2.5}$ are known to affect the level of visibility in much of the U.S. Individuals value visibility both in the places they live and work, in the places they travel to for recreational purposes, and at sites of unique public value, such as at National Parks. For the final standards, we present the recreational visibility benefits of improvements in visibility at 86 Class I areas located throughout California, the Southwest, and the Southeast. These estimated benefits are approximately $170 million in 2020 and $400 million in 2030, as shown in Table VI–3.

Table VI–3, VI–4 and VI–5 do not include those additional health and environmental benefits of the rule that we were unable to quantify or monetize. These effects are additive to the estimate of total benefits, and are related to two primary sources. First, there are many human health and welfare effects associated with PM, ozone, and toxic air pollutant reductions that remain unquantified because of current limitations in the methods or available data. A full appreciation of the overall economic consequences of the final standards requires consideration of all benefits and costs projected to result from the new standards, not just those benefits and costs which could be expressed here in dollar terms. A list of the benefit categories that could not be quantified or monetized in our benefit estimates are provided in Table VI–6.

TABLE VI–3.—ESTIMATED MONETARY VALUE IN REDUCTIONS IN INCIDENCE OF HEALTH AND WELFARE EFFECTS

[In millions of 2006$] [a, b]

| | | 2020 | 2030 |
|---|---|---|---|
| $PM_{2.5}$-Related Health Effect | | Estimated Mean Value of Reductions (5th and 95th percentile) | |
| Premature Mortality—Derived from Epidemiology Studies [c, d]. | Adult, age 30+—ACS study (Pope et al., 2002) | | |
| | 3% discount rate | $3,400 ($810–$7,000) | $8,100 ($1,900–$16,000) |
| | 7% discount rate | $3,100 ($730–$6,300) | $7,300 ($1,700–$15,000) |
| | Adult, age 25+—Six-cities study (Laden et al., 2006) | | |
| | 3% discount rate | $7,800 ($2,200–$15,000) | $18,000 ($5,100–$35,000) |
| | 7% discount rate | $7,000 ($1,900–$13,000) | $17,000 ($4,600–$32,000) |
| | Infant Mortality, <1 year—(Woodruff et al. 1997) | | |
| | 3% discount rate | $7 ($2–$14) | $13 ($3.5–$26) |
| | 7% discount rate | $7 ($2–$13) | $12 ($3.1–$23) |
| Premature mortality—Derived from Expert Elicitation [c, d, e]. | Adult, age 25+—Lower bound (Expert K) | | |
| | 3% discount rate | $1,500 ($0–$7,700) | $3,600 ($0–$18,000) |
| | 7% discount rate | $1,400 ($0–$7,000) | $3,200 ($0–$16,000) |
| | Adult, age 25+—Upper bound (Expert E) | | |
| | 3% discount rate | $15,000 ($4,100–$30,000) | $36,000 ($9,500–$70,000) |
| | 7% discount rate | $14,000 ($3,700–$27,000) | $32,000 ($8,600–$63,000) |
| Chronic bronchitis (adults, 26 and over) | | $150 ($12–$500) | $340 ($28–$1,100) |

[197] Industrial Economics, Incorporated (IEc). 2006. Expanded Expert Judgment Assessment of the Concentration-Response Relationship Between $PM_{2.5}$ Exposure and Mortality. Peer Review Draft. Prepared for: Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, Research Triangle Park, NC. August.

TABLE VI–3.—ESTIMATED MONETARY VALUE IN REDUCTIONS IN INCIDENCE OF HEALTH AND WELFARE EFFECTS—Continued

[In millions of 2006$] [a, b]

| | | 2020 | 2030 |
|---|---|---|---|
| Non-fatal acute myocardial infarctions: | | | |
| 3% discount rate | | $110 ($34–$230) | $260 ($74–$550) |
| 7% discount rate | | $110 ($31–$230) | $250 ($69–$540) |
| Hospital admissions for respiratory causes | | $2.1 ($1.0–$3.2) | $4.9 ($2.4–$7.3) |
| Hospital admissions for cardiovascular causes | | $6.7 ($4.2–$9.2) | $17 ($11–$23) |
| Emergency room visits for asthma | | $0.15 ($0.08–$0.23) | $0.33 ($0.18–$0.49) |
| Acute bronchitis (children, age 8–12) | | $0.08 ($0–$0.2) | $0.17 ($0–$0.42) |
| Lower respiratory symptoms (children, 7–14) | | $0.18 ($0.07–$0.33) | $0.40 ($0.15–$0.73) |
| Upper respiratory symptoms (asthma, 9–11) | | $0.21 ($0.06–$0.46) | $0.46 ($0.13–$1.0) |
| Asthma exacerbations | | $0.45 ($0.05–$1.3) | $1.0 ($0.11–$2.9) |
| Work loss days | | $8.9 ($7.7–$10) | $18 ($16–$21) |
| Minor restricted-activity days (MRADs) | | $22 ($13–$32) | $46 ($27–$66) |
| Recreational Visibility, 86 Class I areas | | $170 (na)[f] | $400 (na) |
| Ozone-related Health Effect | | | |
| Premature Mortality, All ages—Derived from NMMAPS. | Bell et al., 2004 | $100 (−$170–$420) | $440 (−$340–$1,400) |
| Premature Mortality, All ages—Derived from Meta-analyses. | Bell et al., 2005 | $340 (−$360–$1,200) | $1,400 (−$550–$3,900) |
| | Ito et al., 2005 | $460 (−$260–$1,400) | $1,900 (−$120–$4,700) |
| | Levy et al., 2005 | $480 (−$110–$1,300) | $2,000 ($280–$4,400) |
| Premature Mortality—Assumption that association between ozone and mortality is not causal. | | $0 | $0 |
| Hospital admissions—Respiratory causes (children, under 2; adult, 65 and older). | | −$0.54 (−$4.6–$3.3) | $2.7 (−$11–$17) |
| Emergency room visit for asthma (all ages) | | $0.03 (−$0.03–$0.1) | $0.09 (−$0.07–$0.30) |
| Minor restricted activity days (adults, age 18–65) | | $2.5 (−$4.0–$9.9) | $8.8 (−$7.8–$28) |
| School absence days | | $2.9 (−$1.5–$6.8) | $11 (−$1.3–$21) |
| Worker Productivity | | $0.53 (na)[f] | $2.9 (na)[f] |

**Notes:**

([a]) Monetary benefits are rounded to two significant digits for ease of presentation and computation. PM and ozone benefits are nationwide.

([b]) Monetary benefits adjusted to account for growth in real GDP per capita between 1990 and the analysis year (2020 or 2030)

([c]) Valuation assumes discounting over the SAB recommended 20 year segmented lag structure. Results reflect the use of 3 percent and 7 percent discount rates consistent with EPA and OMB guidelines for preparing economic analyses (EPA, 2000; OMB, 2003).

([d]) The valuation of adult premature mortality, derived either from the epidemiology literature or the expert elicitation, is not additive. Rather, the valuations represent a range of possible mortality benefits.

([e]) Based on effect estimates derived from the full-scale expert elicitation assessing the uncertainty in the concentration-response function for PM-related premature mortality (IEc, 2006).[198] The effect estimates of five of the twelve experts included in the elicitation panel fall within the empirically-derived range provided by the ACS and Six-Cities studies. One of the experts fall below this range and six of the experts are above this range. Although the overall range across experts is summarized in this table, the full uncertainty in the estimates is reflected by the results for the full set of 12 experts. The twelve experts' judgments as to the likely mean effect estimate are not evenly distributed across the range illustrated by arraying the highest and lowest expert means.

([f]) We are unable at this time to characterize the uncertainty in the estimate of benefits of worker productivity and improvements in visibility at Class I areas. As such, we treat these benefits as fixed and add them to all percentiles of the health benefits distribution.

TABLE VI–4.—TOTAL MONETIZED BENEFITS OF THE FINAL LOCOMOTIVE AND MARINE ENGINE RULE—3% DISCOUNT RATE

| 2020 | | | 2030 | | |
|---|---|---|---|---|---|
| Ozone mortality function | Reference | Mean total benefits | Ozone mortality function | Reference | Mean total benefits |
| Total Ozone and PM Benefits (Billions, 2006$)—PM Mortality Derived From the ACS Study | | | | | |
| NMMAPS | Bell et al., 2004 | $4.0 | NMMAPS | Bell et al., 2004 | $9.7 |
| Meta-analysis | Bell et al., 2005 | $4.2 | Meta-analysis | Bell et al., 2005 | $11 |
| | Ito et al., 2005 | $4.4 | | Ito et al., 2005 | $11 |
| | Levy et al., 2005 | $4.4 | | Levy et al., 2005 | $11 |

[198] Industrial Economics, Incorporated (IEc). 2006. Expanded Expert Judgment Assessment of the Concentration-Response Relationship between $PM_{2.5}$ Exposure and Mortality. Peer Review Draft. Prepared for: Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, Research Triangle Park, NC. August.

TABLE VI–4.—TOTAL MONETIZED BENEFITS OF THE FINAL LOCOMOTIVE AND MARINE ENGINE RULE—3% DISCOUNT RATE—Continued

| 2020 | | | 2030 | | |
|---|---|---|---|---|---|
| Ozone mortality function | Reference | Mean total benefits | Ozone mortality function | Reference | Mean total benefits |
| Assumption that association is not causal | | $3.9 | Assumption that association is not causal | | $9.2 |
| Total Ozone and PM Benefits (Billions, 2006$)—PM Mortality Derived From Expert Elicitation (Lowest and Highest Estimate) | | | | | |
| NMMAPS | Bell et al., 2004 | $2.1 to $16 | NMMAPS | Bell et al., 2004 | $5.2 to $37 |
| Meta-analysis | Bell et al., 2005 | $2.4 to $16 | Meta-analysis | Bell et al., 2005 | $6.2 to $38 |
| | Ito et al., 2005 | $2.5 to $16 | | Ito et al., 2005 | $6.7 to $39 |
| | Levy et al., 2005 | $2.5 to $16 | | Levy et al., 2005 | $6.7 to $39 |
| Assumption that association is not causal | | $2.0 to $16 | Assumption that association is not causal | | $4.7 to $37 |

TABLE VI–5.—TOTAL MONETIZED BENEFITS OF THE FINAL LOCOMOTIVE AND MARINE ENGINE RULE—7% DISCOUNT RATE

| Total Ozone and PM Benefits (Billions, 2006$)—PM Mortality Derived From Epidemiology Studies (ACS and Six Cities) | | | | | |
|---|---|---|---|---|---|
| 2020 | | | 2030 | | |
| Ozone mortality function | Reference | Mean total benefits | Ozone mortality function | Reference | Mean total benefits |
| NMMAPS | Bell et al., 2004 | $3.7 | NMMAPS | Bell et al., 2004 | $8.9 |
| Meta-analysis | Bell et al., 2005 | $3.9 | Meta-analysis | Bell et al., 2005 | $9.8 |
| | Ito et al., 2005 | $4.0 | | Ito et al., 2005 | $10 |
| | Levy et al., 2005 | $4.0 | | Levy et al., 2005 | $10 |
| Assumption that association is not causal | | $3.6 | Assumption that association is not causal | | $8.4 |

| Total Ozone and PM Benefits (Billions, 2006$)—PM Mortality Derived From Expert Elicitation (Lowest and Highest Estimate) | | | | | |
|---|---|---|---|---|---|
| 2020 | | | 2030 | | |
| Ozone mortality function | Reference | Mean total benefits | Ozone mortality function | Reference | Mean total benefits |
| NMMAPS | Bell et al., 2004 | $2.0 to $14 | NMMAPS | Bell et al., 2004 | $4.8 to $34 |
| Meta-analysis | Bell et al., 2005 | $2.2 to $15 | Meta-analysis | Bell et al., 2005 | $5.8 to $35 |
| | Ito et al., 2005 | $2.3 to $15 | | Ito et al., 2005 | $6.3 to $35 |
| | Levy et al., 2005 | $2.3 to $15 | | Levy et al., 2005 | $6.4 to $35 |
| Assumption that association is not causal | | $1.9 to $14 | Assumption that association is not causal | | $4.4 to $33 |

TABLE VI–6.—UNQUANTIFIED AND NON-MONETIZED POTENTIAL EFFECTS OF THE FINAL LOCOMOTIVE AND MARINE ENGINE STANDARDS

| Pollutant/Effects | Effects Not Included in Analysis—Changes in: |
|---|---|
| Ozone Health [a] | Chronic respiratory damage [b] |
| | Premature aging of the lungs [b] |
| | Non-asthma respiratory emergency room visits |
| | Exposure to UVb (+/−) [e] |
| Ozone Welfare | Yields for |
| | —commercial forests |
| | —some fruits and vegetables |
| | —non-commercial crops |
| | Damage to urban ornamental plants |
| | Impacts on recreational demand from damaged forest aesthetics |
| | Ecosystem functions |
| | Exposure to UVb (+/−) [e] |
| PM Health [c] | Premature mortality—short term exposures [d] |
| | Low birth weight |
| | Pulmonary function |
| | Chronic respiratory diseases other than chronic bronchitis |
| | Non-asthma respiratory emergency room visits |
| | Exposure to UVb (+/−) [e] |
| PM Welfare | Residential and recreational visibility in non-Class I areas |
| | Soiling and materials damage |
| | Damage to ecosystem functions |

TABLE VI–6.—UNQUANTIFIED AND NON-MONETIZED POTENTIAL EFFECTS OF THE FINAL LOCOMOTIVE AND MARINE ENGINE STANDARDS—Continued

| Pollutant/Effects | Effects Not Included in Analysis—Changes in: |
|---|---|
| | Exposure to UVb (+/−) [e] |
| Nitrogen and Sulfate Deposition Welfare | Commercial forests due to acidic sulfate and nitrate deposition |
| | Commercial freshwater fishing due to acidic deposition |
| | Recreation in terrestrial ecosystems due to acidic deposition |
| | Existence values for currently healthy ecosystems |
| | Commercial fishing, agriculture, and forests due to nitrogen deposition |
| | Recreation in estuarine ecosystems due to nitrogen deposition |
| | Ecosystem functions |
| | Passive fertilization |
| CO Health | Behavioral effects |
| HC/Toxics Health [f] | Cancer (benzene, 1,3-butadiene, formaldehyde, acetaldehyde) |
| | Anemia (benzene) |
| | Disruption of production of blood components (benzene) |
| | Reduction in the number of blood platelets (benzene) |
| | Excessive bone marrow formation (benzene) |
| | Depression of lymphocyte counts (benzene) |
| | Reproductive and developmental effects (1,3-butadiene) |
| | Irritation of eyes and mucus membranes (formaldehyde) |
| | Respiratory irritation (formaldehyde) |
| | Asthma attacks in asthmatics (formaldehyde) |
| | Asthma-like symptoms in non-asthmatics (formaldehyde) |
| | Irritation of the eyes, skin, and respiratory tract (acetaldehyde) |
| | Upper respiratory tract irritation and congestion (acrolein) |
| HC/Toxics Welfare | Direct toxic effects to animals |
| | Bioaccumulation in the food chain |
| | Damage to ecosystem function |
| | Odor |

**Notes:**

(a) The public health impact of biological responses such as increased airway responsiveness to stimuli, inflammation in the lung, acute inflammation and respiratory cell damage, and increased susceptibility to respiratory infection are likely partially represented by our quantified endpoints.

(b) The public health impact of effects such as chronic respiratory damage and premature aging of the lungs may be partially represented by quantified endpoints such as hospital admissions or premature mortality, but a number of other related health impacts, such as doctor visits and decreased athletic performance, remain unquantified.

(c) In addition to primary economic endpoints, there are a number of biological responses that have been associated with PM health effects including morphological changes and altered host defense mechanisms. The public health impact of these biological responses may be partly represented by our quantified endpoints.

(d) While some of the effects of short-term exposures are likely to be captured in the estimates, there may be premature mortality due to short-term exposure to PM not captured in the cohort studies used in this analysis. However, the PM mortality results derived from the expert elicitation do take into account premature mortality effects of short term exposures.

(e) May result in benefits or disbenefits.

(f) Many of the key hydrocarbons related to this rule are also hazardous air pollutants listed in the Clean Air Act.

(3) What Are the Significant Limitations of the Benefit-Cost Analysis?

Every benefit-cost analysis examining the potential effects of a change in environmental protection requirements is limited to some extent by data gaps, limitations in model capabilities (such as geographic coverage), and uncertainties in the underlying scientific and economic studies used to configure the benefit and cost models. Limitations of the scientific literature often result in the inability to estimate quantitative changes in health and environmental effects, such as potential increases in premature mortality associated with increased exposure to carbon monoxide. Deficiencies in the economics literature often result in the inability to assign economic values even to those health and environmental outcomes which can be quantified. These general uncertainties in the underlying scientific and economics literature, which can lead to valuations that are higher or lower, are discussed in detail in the RIA and its supporting references. Key uncertainties that have a bearing on the results of the benefit-cost analysis of the final standards include the following:

- The exclusion of potentially significant and unquantified benefit categories (such as health, odor, and ecological benefits of reduction in air toxics, ozone, and PM);
- Errors in measurement and projection for variables such as population growth;
- Uncertainties in the estimation of future year emissions inventories and air quality;
- Uncertainty in the estimated relationships of health and welfare effects to changes in pollutant concentrations including the shape of the C–R function, the size of the effect estimates, and the relative toxicity of the many components of the PM mixture;
- Uncertainties in exposure estimation; and
- Uncertainties associated with the effect of potential future actions to limit emissions.

As Table VI–3 indicates, total benefits are driven primarily by the reduction in premature mortalities each year. Some key assumptions underlying the premature mortality estimates include the following, which may also contribute to uncertainty:

- Inhalation of fine particles is causally associated with premature death at concentrations near those experienced by most Americans on a daily basis. Although biological mechanisms for this effect have not yet been completely established, the weight of the available epidemiological, toxicological, and experimental evidence supports an assumption of causality. The impacts of including a probabilistic representation of causality were explored in the expert elicitation-

based results of the recently published PM NAAQS RIA. Consistent with that analysis, we discuss the implications of these results in the RIA for the final standards.

• All fine particles, regardless of their chemical composition, are equally potent in causing premature mortality. This is an important assumption, because PM produced via transported precursors emitted from locomotive and marine engines may differ significantly from PM precursors released from electric generating units and other industrial sources. However, no clear scientific grounds exist for supporting differential effects estimates by particle type.

• The C–R function for fine particles is approximately linear within the range of ambient concentrations under consideration (above the assumed threshold of 10 μg/m$^3$). Thus, the estimates include health benefits from reducing fine particles in areas with varied concentrations of PM, including both regions that may be in attainment with $PM_{2.5}$ standards and those that are at risk of not meeting the standards.

• There is considerable uncertainty in the magnitude of the association between ozone and premature mortality. The range of ozone benefits associated with the final standards is estimated based on the risk of several sources of ozone-related mortality effect estimates. Recognizing that additional research is necessary to clarify the underlying mechanisms causing these effects, we also consider the possibility that the observed associations between ozone and mortality may not be causal in nature. EPA has requested advice from the National Academy of Sciences on how best to quantify uncertainty in the relationship between ozone exposure and premature mortality in the context of quantifying benefits.

Despite these uncertainties, we believe this benefit-cost analysis provides a conservative estimate of the estimated economic benefits of the final standards in future years because of the exclusion of potentially significant benefit categories. Acknowledging benefits omissions and uncertainties, we present a best estimate of the total benefits based on our interpretation of the best available scientific literature and methods supported by EPA's technical peer review panel, the Science Advisory Board's Health Effects Subcommittee (SAB–HES). The National Academies of Science (NRC, 2002) also reviewed EPA's methodology for analyzing the health benefits of measures taken to reduce air pollution. EPA addressed many of these comments in the analysis of the final PM NAAQS.[199, 200] The analysis of the final standards incorporates this most recent work to the extent possible.

(4) Benefit-Cost Analysis

In estimating the net benefits of the final standards, the appropriate cost measure is ''social costs.'' Social costs represent the welfare costs of a rule to society. These costs do not consider transfer payments (such as taxes) that are simply redistributions of wealth. Table VI–7 contains the estimates of monetized benefits and estimated social welfare costs for the final rule and each of the final control programs. The annual social welfare costs of all provisions of this final rule are described more fully in Section VII of this preamble.

The results in Table VI–7 suggest that the 2020 monetized benefits of the final standards are greater than the expected social welfare costs. Specifically, the annual benefits of the total program will range between $3.9 to $8.8 billion annually in 2020 using a three percent discount rate, or between $3.6 to $8.0 billion assuming a 7 percent discount rate, compared to estimated social costs of approximately $330 million in that same year. These benefits are expected to increase to between $9.2 and $22 billion annually in 2030 using a three percent discount rate, or between $8.4 and $20 billion assuming a 7 percent discount rate, while the social costs are estimated to be approximately $740 million. Though there are a number of health and environmental effects associated with the final standards that we are unable to quantify or monetize (see Table VI–6), the benefits of the final standards far outweigh the projected costs. When we examine the benefit-to-cost comparison for the rule standards separately, we also find that the benefits of the specific engine standards far outweigh their projected costs.

TABLE VI–7.—SUMMARY OF ANNUAL BENEFITS, COSTS, AND NET BENEFITS OF THE FINAL LOCOMOTIVE AND MARINE ENGINE STANDARDS (MILLIONS, 2006$) [a]

| Description | 2020 (Millions of 2006 dollars) | 2030 (Millions of 2006 dollars) |
|---|---|---|
| Estimated Social Costs: [b] | | |
| Locomotive: | $200 | $460. |
| Marine: | $140 | $280. |
| Total Social Costs | $330 | $740. |
| Estimated Health Benefits of the Final Standards: [c, d, e, f] | | |
| Locomotive: | | |
| 3 percent discount rate | $2,000 to $4,400 | $4,300 to $11,000. |
| 7 percent discount rate | $1,900 to $4,000 | $4,000 to $10,000. |
| Marine: | | |
| 3 percent discount rate | $1,900 to $4,400 | $4,900 to $11,000. |
| 7 percent discount rate | $1,700 to $4,000 | $4,400 to $10,000 |
| Total Benefits: | | |
| 3 percent discount rate | $3,900 to $8,800 | $9,200 to $22,000. |
| 7 percent discount rate | $3,600 to $8,000 | $8,400 to $20,000. |
| Annual Net Benefits (Total Benefits – Total Costs): | | |
| 3 percent discount rate | $3,600 to $8,500 | $8,500 to $21,000 |
| 7 percent discount rate | $3,300 to $7,700 | $7,700 to $19,000 |

**Notes:**

[a] All estimates represent annualized benefits and costs anticipated for the years 2020 and 2030. Totals may not sum due to rounding.

[199] National Research Council (NRC). 2002. Estimating the Public Health Benefits of Proposed Air Pollution Regulations. The National Academies Press: Washington, DC.

[200] U.S. Environmental Protection Agency. October 2006. Final Regulatory Impact Analysis (RIA) for the Proposed National Ambient Air Quality Standards for Particulate Matter. Prepared by: Office of Air and Radiation. Available at *http://www.epa.gov/ttn/ecas/ria.html.*

[b] The calculation of annual costs does not require amortization of costs over time. Therefore, the estimates of annual cost do not include a discount rate or rate of return assumption (see Chapter 7 of the RIA). In Section V, however, we do use both a 3 percent and 7 percent social discount rate to calculate the net present value of total social costs consistent with EPA and OMB guidelines for preparing economic analyses.

[c] Total includes ozone and $PM_{2.5}$ benefits. Range was developed by adding the estimate from the ozone premature mortality function, including an assumption that the association is not causal, to both estimates of $PM_{2.5}$-related premature mortality derived from the ACS (Pope et al., 2002) and Six-Cities (Laden et al., 2006) studies, respectively.

[d] Annual benefits analysis results reflect the use of a 3 percent and 7 percent discount rate in the valuation of premature mortality and nonfatal myocardial infarctions, consistent with EPA and OMB guidelines for preparing economic analyses (US EPA, 2000 and OMB, 2003).[201, 202]

[e] Valuation of premature mortality based on long-term PM exposure assumes discounting over the SAB recommended 20-year segmented lag structure described in the Regulatory Impact Analysis for the Final Clean Air Interstate Rule (March, 2005).

[f] Not all possible benefits or disbenefits are quantified and monetized in this analysis. Potential benefit categories that have not been quantified and monetized are listed in Table VI–6.

## VII. Alternative Program Options

The program we are finalizing today represents a broad and comprehensive approach to reducing emissions from locomotive and marine diesel engines. As we developed this final rule, we considered a number of alternatives with regard to the scope and timing of the standards. After carefully evaluating these alternatives, we believe that our new program provides the best opportunity for achieving timely and substantial emission reductions from locomotive and marine diesel engines. Our final program balances a number of key factors: (1) Achieving significant emissions reductions as early as possible, (2) providing appropriate lead time to develop and apply advanced control technologies, and (3) coordinating requirements in this final rule with existing highway and nonroad diesel engine programs. The alternative scenarios described here were constructed to further evaluate each individual aspect of our program, and have enabled us to achieve the appropriate balance between these key factors. This section presents a summary of our analysis of these alternative control scenarios. For a more detailed explanation of our analysis, including a year by year breakout of expected costs and emission reductions, please refer to Chapter 8 of the Regulatory Impact Analysis (RIA) prepared for this final rulemaking.

### *A. Summary of Alternatives*

#### (1) Alternative 1: Proposed Program From the Notice of Proposed Rulemaking

Alternative 1 examines the differences between the program we proposed and the program we are finalizing in this rulemaking. The proposal consisted of a three-part program. First, it proposed more stringent standards for existing locomotives that would apply when they were remanufactured. These standards would go into effect as soon as a certified remanufacture system became available. Second, we proposed a set of near-term emission standards, referred to as Tier 3, for freshly manufactured locomotives and marine engines that reflected the application of technologies to reduce engine-out PM and $NO_X$. Third, we proposed longer-term standards, referred to as Tier 4, that utilized high-efficiency catalytic aftertreatment technology enabled by the availability of ULSD. These standards would phase in over time, beginning in 2014. In addition, we proposed eliminating emissions from unnecessary locomotive idling.

The final rule makes a number of important changes to the program originally set out in the proposal which we believe will yield significantly greater overall $NO_X$ and PM reductions, especially in the critical early years of the program. In particular, the adoption of standards for remanufactured marine engines and a 2-year pull-ahead of the Tier 4 $NO_X$ requirements for line-haul locomotives and for 2000–3700 kW marine engines provide greater near-term reductions than the proposal. The final rule also expands the remanufactured locomotive program to include Class II railroads.

As a stand-alone program, through the year 2040 Alternative 1 provides $PM_{2.5}$ reductions of 286,000 tons NPV 3%, or 121,000 tons NPV 7%, and $NO_X$ reductions of 8,140,000 tons NPV 3%, or 3,320,000 tons NPV 7%. The cost of this alternative through 2040 is estimated to be $8,760 million NPV 3%, or $3,900 million NPV 7%. In 2020, this alternative provides monetized health and welfare benefits of $3.3 billion at a 3% discount rate, or $3.0 billion at a 7% discount rate, and $8.8 billion in 2030 at a 3% discount rate, or $8.0 billion at a 7% discount rate. Through 2040 our final program provides additional $PM_{2.5}$ reductions of 22,000 tons NPV 3%, or 13,000 tons NPV 7%, and additional $NO_X$ reductions of 620,000 tons NPV 3%, or 390,000 tons NPV 7%. Through 2040, the additional costs of our final program will be $650 million NPV 3%, or $410 million NPV 7%. The additional $PM_{2.5}$ monetized health and welfare benefits in 2020 of our final program are $0.6 billion at a 3% discount rate, or $0.6 billion at a 7% discount rate, while in 2030 the additional monetized health and welfare benefits total $0.4 billion at a 3% discount rate, or $0.4 billion at a 7% discount rate.

#### (2) Alternative 2: Exclusion of Remanufacturing Standards

Alternative 2 examines the potential impacts of the locomotive and marine remanufacturing programs by excluding them from the analysis (see sections III.B.(1)(a)(i), III.B.(1)(b), and III.B.(2)(b) of this Preamble for more details on the remanufacturing standards). As a stand-alone program, Alternative 2 provides $PM_{2.5}$ reductions of 240,000 tons NPV 3%, or 96,000 tons NPV 7%, and $NO_X$ reductions of 7,640,000 tons NPV 3%, or 3,030,000 tons NPV 7%, through the year 2040. The cost of this alternative through 2040 is estimated to be $8,080 million NPV 3%, or $3,430 million NPV 7%. In 2020, this alternative provides monetized health and welfare benefits of $2.5 billion at a 3% discount rate, or $2.3 billion at a 7% discount rate, and $8.2 billion in 2030 at a 3% discount rate, or $7.5 billion at a 7% discount rate. Compared to the final program, our analysis shows that by 2040 eliminating the locomotive and marine remanufacture programs lessen $PM_{2.5}$ emission reductions by 68,000 tons NPV 3%, or 38,000 tons NPV 7%, and $NO_X$ emission reductions by nearly 1,120,000 tons NPV 3%, or 680,000 tons NPV 7%. The cost of this alternative, as compared to our final program through 2040, is estimated to be $1,330 million less NPV 3%, or $880 million less NPV 7%. Compared to our final program, eliminating the locomotive and marine remanufacture programs reduce the monetized health and welfare benefits by $1.4 billion at a 3% discount rate, or $1.3 billion at a 7% discount rate in 2020, and $1.0 billion at a 3% discount rate, or $0.9 billion at a 7% discount rate in 2030.

#### (3) Alternative 3: Elimination of Tier 3

Alternative 3 eliminates the Tier 3 standards, while retaining the Tier 4 standards and the combined marine and

[201] U.S. Environmental Protection Agency, 2000. Guidelines for Preparing Economic Analyses. *www.yosemite1.epa.gov/ee/epa/eed/hsf/pages/Guideline.html.*

[202] Office of Management and Budget, The Executive Office of the President, 2003. Circular A–4. *http://www.whitehouse.gov/omb/circulars.*

locomotive remanufacturing requirements. As a stand-alone program, Alternative 3 provides $PM_{2.5}$ reductions of 237,000 tons NPV 3%, or 100,000 tons NPV 7%, and $NO_X$ reductions of 8,360,000 tons NPV 3%, or 3,530,000 tons NPV 7%, through the year 2040. The cost of this alternative through 2040 is estimated to be $9,240 million NPV 3%, or $4,160 million NPV 7%. In 2020, this alternative provides monetized health and welfare benefits of $2.8 billion at a 3% discount rate, or $2.6 billion at a 7% discount rate, and $7.8 billion in 2030 at a 3% discount rate, or $7.1 billion at a 7% discount rate. Comparing this alternative to our final program allows us to consider the value of the Tier 3 standards on their own merits. Specifically, this alternative would lessen $PM_{2.5}$ emissions reductions by nearly 71,000 tons NPV 3%, or 34,000 tons NPV 7%, and $NO_X$ emissions by 400,000 tons NPV 3%, or 180,000 tons NPV 7%. The cost of this alternative, as compared to our final program through 2040, is estimated to be $170 million less at NPV 3%, or $150 million less at NPV 7%. The monetized health and welfare benefits that would be forgone by eliminating Tier 3 are $1.1 billion at a 3% discount rate, or $1.0 billion at a 7% discount rate in 2020, and $1.4 billion at a 3% discount rate, or $1.3 billion at a 7% discount rate in 2030. Although the remanufacturing programs provide substantial benefits in the near-term, as evidenced by the analysis of Alternative 2, it is clear that Tier 3 also plays an important role in providing both near- and long-term emission reductions.

(4) Alternative 4: Tier 4 Exclusively in 2013

Alternative 4 most closely reflects the program described in our Advanced Notice of Proposed Rulemaking, whereby we would set new aftertreatment based emission standards as soon as possible. In this case, we believe the earliest that such standards could logically be started is in 2013 (three months after the introduction of 15 ppm ULSD in this sector). Alternative 4 eliminates our Tier 3 standards along with the locomotive and marine remanufacturing standards, while pulling the Tier 4 standards ahead to 2013 for all portions of the Tier 4 program. We are unable to make an accurate estimate of the cost for such an approach since we do not believe it to be technically feasible at this time. However, we have reported a cost in the summary table reflecting the same cost estimation method we used for our primary case and have denoted unestimated additional costs as 'C'. These additional unestimated costs would include costs for additional engine test cells, engineering staff, and engineering facilities necessary to introduce Tier 4 early. As a stand-alone program, Alternative 4 provides $PM_{2.5}$ reductions of 249,000 tons NPV 3%, or 101,000 tons NPV 7%, and $NO_X$ reductions of 8,320,000 tons NPV 3%, or 3,420,000 tons NPV 7% through the year 2040. In 2020, this alternative provides monetized health and welfare benefits of $3.0 billion at a 3% discount rate, or $2.8 billion at a 7% discount rate, and $8.4 billion in 2030 at a 3% discount rate, or $7.6 billion at a 7% discount rate. Through 2040, this alternative, as compared to our final program, would decrease $PM_{2.5}$ reductions by more than 59,000 NPV 3% tons, or 33,000 tons NPV 7%, and $NO_X$ emissions by 440,000 tons NPV 3%, or 290,000 tons NPV 7%. Compared to our final program, the reduction in monetized health and welfare benefits of this alternative would be $0.9 billion at a 3% discount rate, or $0.8 billion at a 7% discount rate in 2020, while in 2030 the reductions in monetized benefits would be $0.8 billion at a 3% discount rate, or $0.8 billion at a 7% discount rate.

*B. Summary of Results*

A summary of the four alternatives is contained in Table VII–1 and Table VII–2 below. The PM and $NO_X$ emissions reductions from the alternatives described here compare favorably—in terms of cost effectiveness—to other mobile source control programs that have been or will soon be implemented. These alternatives show that each element of our comprehensive program: the locomotive and marine remanufacturing programs, the near-term Tier 3 emission standards, and the long-term Tier 4 emission standards, represent valuable emission control programs on their own. The collective program results in the greatest emission reductions we believe to be possible giving consideration to all of the elements described in this final rule. Overall, our final program will provide very large reductions in PM, $NO_X$, and toxic compounds in both the near-term and the long-term. These reductions will be achieved in a manner that: (1) Leverages technology developments in other diesel sectors, (2) aligns well with the clean diesel fuel requirements already being implemented, and (3) provides the lead time needed to deal with the significant engineering design workload that is involved.

TABLE VII–1.—SUMMARY OF INVENTORY AND COSTS AT NPV 3% AND 7%

| Alternatives | Standards | Estimated $PM_{2.5}$ reductions 2006–2040 | | Estimated $NO_X$ reductions 2006–2040 | | Total costs [a] millions 2006–2040 | |
|---|---|---|---|---|---|---|---|
| | | NPV 3% | NPV 7% | NPV 3% | NPV 7% | NPV 3% | NPV 7% |
| Final Rule | • Locomotive Remanufacturing<br>• Marine Remanufacturing,<br>• Tier 3 Near-term program,<br>• Tier 4 Long-term standards | 308,000 | 134,000 | 8,760,000 | 3,710,000 | $9,410 | $4,310 |
| Alternative 1: Proposed Case (NPRM). | • Proposed Locomotive Remanufacturing program,.<br>• Proposed Tier 3 Near-term program,<br>• Proposed Tier 4 Long-term standards | 286,000 | 121,000 | 8,140,000 | 3,320,000 | 8,760 | 3,900 |
| Alternative 2: Exclusion of Remanufacturing Standards. | • Tier 3 Near-term program,<br>• Tier 4 Long-term standards | 240,000 | 96,000 | 7,640,000 | 3,030,000 | 8,080 | 3,430 |
| Alternative 3: Elimination of Tier 3. | • Locomotive Remanufacturing,<br>• Marine Remanufacturing,<br>• Tier 4 Long-term standards | 237,000 | 10,000 | 8,360,000 | 3,530,000 | 9,240 | 4,160 |

TABLE VII–1.—SUMMARY OF INVENTORY AND COSTS AT NPV 3% AND 7%—Continued

| Alternatives | Standards | Estimated $PM_{2.5}$ reductions 2006–2040 | | Estimated $NO_X$ reductions 2006–2040 | | Total costs [a] millions 2006–2040 | |
|---|---|---|---|---|---|---|---|
| | | NPV 3% | NPV 7% | NPV 3% | NPV 7% | NPV 3% | NPV 7% |
| Alternative 4: Tier 4 Exclusively in 2013. | • Tier 4 Long-term standards only in 2013. | 249,000 | 101,000 | 8,320,000 | 3,420,000 | 9,070+C | 3950+C |

**Note:** [a] 'C' represents the additional costs necessary to accelerate the introduction of Tier 4 technologies that we are unable to estimate at this time.

TABLE VII–2.—INVENTORY, COST, AND BENEFITS FOR 2020 AND 2030

| | $PM_{2.5}$ emissions reductions (tons) | | $NO_X$ emissions reductions (tons) | | Total costs[a] (millions) | | Benefits[b,c] (billions) $PM_{2.5}$ only 3% discount rate | | Benefits[b,c] (billions) $PM_{2.5}$ only 7% discount rate | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 2020 | 2030 | 2020 | 2030 | 2020 | 2030 | 2020 | 2030 | 2020 | 2030 |
| Final Rule | 14,000 | 27,000 | 370,000 | 790,000 | $350 | $760 | $3.9 | $9.2 | $3.6 | $8.4 |
| Alternative 1: Proposed Case (NPRM) | 13,000 | 26,000 | 310,000 | 780,000 | 300 | 750 | 3.3 | 8.8 | 3.0 | 8.0 |
| Alternative 2: Exclusion of Remanufacturing Standards | 8,800 | 24,000 | 280,000 | 760,000 | 290 | 720 | 2.5 | 8.2 | 2.3 | 7.5 |
| Alternative 3: Elimination of Tier 3 | 8,800 | 21,000 | 350,000 | 760,000 | 350 | 760 | 2.8 | 7.8 | 2.6 | 7.1 |
| Alternative 4: Tier 4 Exclusively in 2013 | 10,000 | 24,000 | 350,000 | 790,000 | 360 | 780 | 3.0 | 8.4 | 2.8 | 7.6 |

**Notes:**

[a] 'C' represents the additional costs necessary to accelerate the introduction of Tier 4 technologies that we are unable to estimate at this time.

[b] Note that the range of PM-related benefits reflects the use of an empirically-derived estimate of PM mortality benefits, based on the ACS cohort study (Pope et al., 2002).

[c] Annual benefits analysis results reflect the use of a 3 percent and 7 percent discount rate in the valuation of premature mortality and nonfatal myocardial infarctions, consistent with EPA and OMB guidelines for preparing economic analyses (US EPA, 2000 and OMB, 2003). U.S. Environmental Protection Agency, 2000. Guidelines for Preparing Economic Analyses. *http://yosemite.epa.gov/ee/epa/eed.nsf/webpages/Guidelines.html.*

## VIII. Public Participation

Many interested parties participated in the rulemaking process that culminates with this final rule. This process provided opportunity for submitting written public comments following the proposal that we published on April 3, 2007 (72 FR 15938). We considered these comments in developing the final rule. In addition, we held public hearings on the proposed rulemaking on May 8 and 10, 2007, and we have considered comments presented at the hearings.

Throughout the rulemaking process, EPA met with stakeholders including representatives from industry, government, environmental organizations, and others. The program we are finalizing today was developed as a collaborative effort with these stakeholders.

We have prepared a detailed Summary and Analysis of Comments document, which describes comments we received on the proposal and our response to each of these comments. The Summary and Analysis of Comments is available in the docket for this rule at the Internet address listed under **ADDRESSES**, as well as on the Office of Transportation and Air Quality Web site (*www.epa.gov/otaq/locomotv.htm* and *www.epa.gov/otaq/marine.htm*). In addition, comments and responses for key issues are included throughout this preamble.

## IX. Statutory and Executive Order Reviews

### *A. Executive Order 12866: Regulatory Planning and Review*

Under section 3(f)(1) of Executive Order (EO) 12866 (58 FR 51735, October 4, 1993), this action is an ''economically significant regulatory action'' because it is likely to have an annual effect on the economy of $100 million or more. Accordingly, EPA submitted this action to the Office of Management and Budget (OMB) for review under EO 12866, and any changes made by EPA after submission to OMB have been documented in the docket for this action.

In addition, EPA prepared an analysis of the potential costs and benefits associated with this action. This analysis is contained in the final Regulatory Impact Analysis that was prepared for this rulemaking, and is available in the docket at the docket internet address listed under **ADDRESSES** above.

### *B. Paperwork Reduction Act*

The information collection requirements in this final rule have been submitted for approval to the Office of Management and Budget (OMB) under the *Paperwork Reduction Act,* 44 U.S.C. 3501 *et seq.* EPA may not conduct the information collection requirements in this rule and may not penalize anyone for failing to comply with the information collection requirements in the rule unless they are currently approved by OMB.

EPA plans to collect information to ensure that locomotives and marine diesel engines conform to the regulations throughout their useful lives. Section 208(a) of the Clean Air Act requires that manufacturers provide information the Administrator may reasonably require to determine compliance with the regulations; submission of the information is therefore mandatory. We will consider confidential all information meeting the requirements of Section 208(c) of the Clean Air Act.

The annual public reporting and recordkeeping burden for this collection of information is estimated to be 287 hours per respondent for locomotives, and 149 hours per respondent for marine. The projected number of

respondents and annual reporting, recordkeeping, and cost burdens to respondents are as follows:

- Estimated total number of potential respondents: for locomotives—7; for marine—13.
- Estimated total annual burden hours: for locomotives—14,040 (2,010 per respondent); for marine—25,167 (1,940 per respondent).
- Estimated total annual costs: for locomotives—$1.65 million ($315,000 per respondent); for marine—$1.45 million ($112,000 per respondent).

Burden means the total time, effort, or financial resources expended by persons to generate, maintain, retain, or disclose or provide information to or for a Federal agency. This includes the time needed to review instructions; develop, acquire, install, and utilize technology and systems for the purposes of collecting, validating, and verifying information, processing and maintaining information, and disclosing and providing information; adjust the existing ways to comply with any previously applicable instructions and requirements; train personnel to be able to respond to a collection of information; search data sources; complete and review the collection of information; and transmit or otherwise disclose the information.

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 OMB control numbers for EPA's regulations in 40 CFR are listed in 40 CFR part 9. When this ICR is approved by OMB, EPA will publish a technical amendment to 40 CFR part 9 in the **Federal Register** to display the OMB control number for the approved information collection requirements contained in this final rule.

*C. Regulatory Flexibility Act*

(1) Overview

The Regulatory Flexibility Act (RFA) generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedure Act or any other statute unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations, and small governmental jurisdictions.

For purposes of assessing the impacts of today's rule on small entities, small entity is defined as: (1) A small business as defined by the Small Business Administration's (SBA) regulations at 13 CFR 121.201 (see Table IX–1, below); (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise which is independently owned and operated and is not dominant in its field.

TABLE IX–1.—PRIMARY SBA SMALL BUSINESS CATEGORIES POTENTIALLY AFFECTED BY THIS REGULATION

| Industry | NAICS [a] Codes | Defined by SBA as a small business if less than or equal to:[b] |
|---|---|---|
| Locomotive: | | |
| Manufacturers, remanufacturers and importers of locomotives and locomotive engines | 333618, 336510 | 1,000 employees. |
| Railroad owners and operators | 482110, 482111 | 1,500 employees. |
| | 482112 | 500 employees. |
| Engine repair and maintenance | 488210 | $6.5 million annual sales. |
| Marine: | | |
| Manufacturers of freshly manufactured marine diesel engines | 333618 | 1,000 employees. |
| Ship and boat building; ship building and repairing | 336611, 346611 | 1,000 employees. |
| Engine repair and maintenance | 811310 | $6.5 million annual sales. |
| Water transportation, freight and passenger | 483 | 500 employees. |
| Water transportation, freight and passenger—Offshore Marine Services | 483 | $25.5 million annual sales. |
| Scenic and Sightseeing Transportation, Water | 487210 | $6.5 million annual sales. |
| Navigational Services to Shipping | 488330 | $6.5 million annual sales. |
| Commercial Fishing | 114 | $4.0 million annual sales. |
| Boat building (watercraft not built in shipyards and typically of the type suitable or intended for personal use). | 336612 | 500 employees. |

**Notes:**
[a] North American Industry Classification System
[b] According to SBA's regulations (13 CFR 121), businesses with no more than the listed number of employees or dollars in annual receipts are considered ''small entities'' for RFA purposes.

After considering the economic impacts of today's final rule on small entities, I certify that this action will not have a significant economic impact on a substantial number of small entities. The small entities directly regulated by this final rule are shown in Table IX–1 (and are not small governmental jurisdictions or small non-profit organizations). We have determined that about five small entities representing less than one percent of the total number of companies affected will have an estimated impact exceeding three percent of their annual sales revenues. The vast majority of small entities (about several thousand small companies) will have an estimated impact of less than one percent on their annual sales revenues. (An analysis of the impacts of the rule on small entities was performed for the rule, and can be found in the docket for this rulemaking.[203, 204])

Although this final rule will not have a significant economic impact on a substantial number of small entities, EPA nonetheless has tried to reduce the impact of this rule on small entities, as described below.

[203] U.S. EPA, Assessment and Standards Division, *Locomotive and Marine Diesel RFA/SBREFA Screening Analysis,* Memorandum from Chester J. France to Alexander Cristofaro of U.S. EPA's Office of Policy, Economics, and Innovation, September 25, 2006.

[204] U.S. EPA, Assessment and Standards Division, *Supplement to Locomotive and Marine Diesel RFA/SBREFA Screening Analysis—Marine Existing Fleet Program Impact Analysis,* Memorandum from Lucie Audette and Bryan Manning to Docket EPA–HQ–OAR–2003–0190, December 12, 2007.

(2) Outreach Efforts and Special Compliance Provisions for Small Entities

In addition to the inputs we sought prior to issuing the proposed rule, we also received additional comments following its publication. First we summarize the pre-proposal outreach, followed by additional comments we received after the proposal was published.

Early on, we sought the input of a number of small entities affected by the rule on potential regulatory flexibility provisions and the needs of these small businesses. For marine diesel engine manufacturers, we had separate meetings with the four small companies in this sector, which are post-manufacture marinizers (companies that purchase a complete or semi-complete engine from an engine manufacturer and modify it for use in the marine environment by changing the engine in ways that may affect emissions). We also met individually with one small commercial vessel builder and a few vessel trade associations whose members include small vessel builders. For locomotive manufacturers and remanufacturers, we met separately with the three small businesses in these sectors, which are all remanufacturers. In addition, we met with a railroad trade association whose members include small railroads. For nearly all meetings, EPA provided each small business with an outreach packet that included background information on this proposed rulemaking; and a document outlining some flexibility provisions for small businesses that we have implemented in past rulemakings. (This outreach packet and a complete summary of our discussions with small entities can be found in the docket for this rulemaking.) [205]

The primary feedback we received from these small entities pre-proposal was to continue the flexibility provisions that we have provided to small entities in earlier locomotive and marine diesel rulemakings. A number of these provisions are listed below. Therefore, we will largely continue the existing flexibility provisions finalized in the 1998 Locomotive and Locomotive Engines Rule (April 16, 1998; 63 FR 18977); our 1999 Commercial Marine Diesel Engines Rule (December 29, 1999; 64 FR 73299) and our 2002 Recreational Diesel Marine program (November 8, 2002; 67 FR 68304).

In the proposed rule, we requested comment on an alternative program option—a marine existing fleet or remanufacture program (*Alternative 5: Existing Engines*)—and as described earlier in this preamble, we are finalizing a portion of this alternative. Based on oral testimony at the hearings and written comments (from trade associations, small entities, etc.), we are providing flexibilities to vessel operators and/or marine remanufacturers as described below. For a complete description of the flexibilities in this final rule, please refer to the Certification and Compliance Program, section IV.A.(13)—Small Business Provisions.

(a) Transition Flexibilities

(i) Locomotive Sector

Small locomotive remanufacturers are granted a waiver from production-line and in-use testing for up to five calendar years after this program becomes effective.

Class III railroads qualifying as small businesses are exempt from new Tier 0, 1, and 2 remanufacturing requirements for locomotives in their existing fleets. The Certification and Compliance Program section IV.A.(13) provides a discussion on the revisions being made in this program.

Railroads qualifying as small businesses continue being exempt from the in-use testing program.

(ii) Marine Sector

Post-manufacture marinizers and small-volume manufacturers (annual worldwide production of fewer than 1,000 engines) are allowed to group all engines into one engine family, based on the worst-case emitter.

Small-volume manufacturers producing engines less than or equal to 600 kW (800 hp) are exempted from production-line and deterioration testing (assigned deterioration factors) for Tier 3 standards.

Post-manufacture marinizers qualifying as small businesses and producing engines less than or equal to 600 kW (800 hp) may delay compliance with the Tier 3 standards by one model year.

Post-manufacture marinizers qualifying as small businesses and producing engines less than or equal to 600 kW (800 hp) may delay compliance with the Not-to-Exceed requirements for Tier 3 standards by up to three model years.

Marine engine dressers (modify base engine without affecting the emission characteristics of the engine) are exempted from certification and compliance requirements.

Post-manufacture marinizers, small-volume manufacturers, and small-volume boat builders (less than 500 employees and annual worldwide production of fewer than 100 boats) have hardship relief provisions—i.e., apply for additional time.

For the marine existing fleet or remanufacture program, vessel operators and marine remanufacturers qualifying as small businesses also have hardship relief provisions allowing them if necessary to apply for additional time to comply with program requirements.

Vessel operators who earn less than $5 million in gross annual sales revenue are exempted from the marine existing fleet or remanufacture program. If at some future date annual gross revenues exceed $5 million, they become subject to the existing fleet program at that point.

(b) Small Entity Compliance Information

In addition to the above flexibilities, EPA is also preparing documentation to help small entities comply with this rule. This documentation will be available on the Office of Transportation and Air Quality Web site. Small entities may also contact our office to obtain copies of this documentation.

*D. Unfunded Mandates Reform Act*

Title II of the Unfunded Mandates Reform Act of 1995 (UMRA), P.L. 104–4, establishes requirements for Federal agencies to assess the effects of their regulatory actions on State, local, and tribal governments and the private sector. Under section 202 of the UMRA, EPA generally must prepare a written statement, including a cost-benefit analysis, for proposed and final rules with ''Federal mandates'' that may result in expenditures to State, local, and tribal governments, in the aggregate, or to the private sector, of $100 million or more in any one year. Before promulgating an EPA rule for which a written statement is needed, section 205 of the UMRA generally requires EPA to identify and consider a reasonable number of regulatory alternatives and adopt the least costly, most cost-effective or least burdensome alternative that achieves the objectives of the rule. The provisions of section 205 do not apply when they are inconsistent with applicable law. Moreover, section 205 allows EPA to adopt an alternative other than the least costly, most cost-effective or least burdensome alternative if the Administrator publishes with the final rule an explanation why that alternative was not adopted. Before EPA establishes any regulatory requirements that may significantly or uniquely affect small

[205] U.S. EPA, *Summary of Small Business Outreach for Locomotive and Marine Diesel NPRM*, Memorandum to Docket EPA–HQ–OAR–2003–0190 from Bryan Manning, January 18, 2007.

governments, including tribal governments, it must have developed under section 203 of the UMRA a small government agency plan. The plan must provide for notifying potentially affected small governments, enabling officials of affected small governments to have meaningful and timely input in the development of EPA regulatory proposals with significant Federal intergovernmental mandates, and informing, educating, and advising small governments on compliance with the regulatory requirements.

This rule contains no federal mandates for state, local, or tribal governments as defined by the provisions of Title II of the UMRA. The rule imposes no enforceable duties on any of these governmental entities. Nothing in the rule would significantly or uniquely affect small governments. EPA has determined that this rule contains federal mandates that may result in expenditures of more than $100 million to the private sector in any single year. Accordingly, EPA has evaluated under section 202 of the UMRA the potential impacts to the private sector. EPA believes that this rule represents the least costly, most cost-effective approach to achieve the statutory requirements of the rule. The costs and benefits associated with this rule are included in the final Regulatory Impact Analysis (RIA), as required by the UMRA. This analysis can be found in chapter 6 of the final RIA. A complete discussion of why the approach being finalized in this action was chosen is located in chapter 8 of the final RIA. EPA has determined that this rule contains no regulatory requirements that might significantly or uniquely affect small governments.

Thus, this rule is not subject to the requirements of sections 202 and 205 of the UMRA.

*E. Executive Order 13132 (Federalism)*

Executive Order 13132, entitled ''Federalism'' (64 FR 43255, August 10, 1999), requires EPA to develop an accountable process to ensure ''meaningful and timely input by State and local officials in the development of regulatory policies that have federalism implications.'' ''Policies that have federalism implications'' is defined in the Executive Order to include regulations that 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.''

This final rule 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, as specified in Executive Order 13132. Although section 6 of Executive Order 13132 does not apply to this rule, EPA did consult with representatives of various State and local governments in developing this rule. EPA consulted with representatives from the National Association of Clean Air Agencies (NACAA, formerly STAPPA/ALAPCO), the Northeast States for Coordinated Air Use Management (NESCAUM), and the California Air Resources Board (CARB). These organizations and other state organizations submitted comments on the proposed rule. Their comments are available in the rulemaking docket, and are summarized and addressed in the Summary and Analysis of Comments document (which is also available in the rulemaking docket).

In the spirit of Executive Order 13132, and consistent with EPA policy to promote communications between EPA and State and local governments, EPA specifically solicited comment on the proposed rule from State and local officials.

*F. Executive Order 13175 (Consultation and Coordination with Indian Tribal Governments)*

Executive Order 13175, entitled ''Consultation and Coordination with Indian Tribal Governments'' (65 FR 67249, November 9, 2000), requires EPA to develop an accountable process to ensure ''meaningful and timely input by tribal officials in the development of regulatory policies that have tribal implications.'' This final rule does not have tribal implications, as specified in Executive Order 13175. The rule will be implemented at the Federal level and impose compliance costs only on locomotive manufacturers, locomotive engine manufacturers, locomotive operators, locomotive remanufacturers, marine engine manufacturers, and marine vessel manufacturers. Tribal governments will be affected only to the extent they purchase and use the regulated engines and vehicles. Thus, Executive Order 13175 does not apply to this rule.

Although Executive Order 13175 does not apply to this rule, EPA did solicit additional comment on this rule from tribal officials. A comment was received from one tribal government; that comment is available in the rulemaking docket, and is summarized and addressed in the Summary and Analysis of Comments document (which is also available in the rulemaking docket).

*G. Executive Order 13045: Protection of Children From Environmental Health and Safety Risks*

Executive Order 13045: ''Protection of Children from Environmental Health Risks and Safety Risks'' (62 FR 19885, April 23, 1997) applies to any rule that: (1) Is determined to be ''economically significant'' as defined under Executive Order 12866, and (2) concerns an environmental health or safety risk that EPA has reason to believe may have a disproportionate effect on children. If the regulatory action meets both criteria, the Agency must evaluate the environmental health or safety effects of the planned rule on children, and explain why the planned regulation is preferable to other potentially effective and reasonably feasible alternatives considered by the Agency.

This final rule is subject to the Executive Order because it is an economically significant regulatory action as defined by Executive Order 12866, and we believe that the environmental health or safety risk addressed by this action may have a disproportionate effect on children. Accordingly, we have evaluated the environmental health or safety effects of these risks on children. The results of this evaluation are discussed above in section II of this preamble, and in chapter 2 of the Regulatory Impact Analysis (RIA).

EPA recently conducted an initial screening-level analysis of selected marine port areas and rail yards[206, 207] to begin to understand the populations, including children, that are exposed to DPM emissions from these facilities. This screening-level analysis [208] indicates that at the 47 marine ports and 37 rail yards studied, at least 13 million people, including 3.5 million children live in neighborhoods that are exposed to higher levels of DPM from these

[206] ICF International. September 28, 2007. Estimation of diesel particulate matter concentration isopleths for marine harbor areas and rail yards. Memorandum to EPA under Work Assignment Number 0–3, Contract Number EP–C–06–094. This memo is available in Docket EPA–HQ–OAR–2003–0190.

[207] ICF International. September 28, 2007. Estimation of diesel particulate matter population exposure near selected harbor areas and rail yards. Memorandum to EPA under Work Assignment Number 0–3, Contract Number EP–C–06–094. This memo is available in Docket EPA–HQ–OAR–2003–0190.

[208] This type of screening-level analysis is an inexact tool and not appropriate for regulatory decision-making; it is useful in beginning to understand potential impacts and for illustrative purposes. Additionally, the emissions inventories used as inputs into our analysis are not official estimates and they likely underestimate overall emissions because they are not inclusive of all emissions sources at the individual ports in our sample.

facilities than people living further away and will benefit from the controls being finalized in this action.

With regard to children, the screening-level analysis shows that the age composition of the total affected population near both the marine ports and rail yards matches closely the age composition of the overall U.S. population. However, for some individual facilities the young appear to be over-represented in the affected population compared to the overall U.S. population. See section VI of this preamble and chapters 2 and 6 of the RIA for a discussion on the air quality and monetized health benefits of this rule, including the benefits to children's health.

This rulemaking will achieve significant reductions of various emissions from locomotive and marine diesel engines, including $NO_X$, PM, and air toxics. These pollutants raise concerns regarding environmental health or safety risks that EPA has reason to believe may have a disproportionate effect on children, such as impacts from ozone, PM, and certain toxic air pollutants.

EPA has evaluated several regulatory strategies for reductions in emissions from locomotive and marine diesel engines, and we believe that we have selected the most stringent and effective control reasonably feasible at this time (in light of the technology and cost requirements of the Clean Air Act), which will benefit the health of children.

*H. Executive Order 13211: Actions That Significantly Affect Energy Supply, Distribution, or Use*

Executive Order 13211, ''Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use'' (66 FR 28355 (May 22, 2001)), requires EPA to prepare and submit a Statement of Energy Effects to the Administrator of the Office of Information and Regulatory Affairs, Office of Management and Budget, for certain actions identified as ''significant energy actions.'' Section 4(b) of Executive Order 13211 defines ''significant energy actions'' as ''any action by an agency (normally published in the **Federal Register**) that promulgates or is expected to lead to the promulgation of a final rule or regulation, including notices of inquiry, advance notices of proposed rulemaking, and notices of proposed rulemaking: (1)(i) that is a significant regulatory action under Executive Order 12866 or any successor order, and (ii) is likely to have a significant adverse effect on the supply, distribution, or use of energy; or (2) that is designated by the Administrator of the Office of Information and Regulatory Affairs as a significant energy action.'' We have prepared a Statement of Energy Effects for this action as follows.

This rule's potential effects on energy supply, distribution, or use have been analyzed and are discussed in detail in section 5.8 of the RIA. In summary, while we project that this rule would result in an energy effect that exceeds the 4,000 barrel per day threshold noted in E.O. 13211 in or around the year 2022 and thereafter, the program consists of performance-based standards with averaging, banking, and trading provisions that make it likely that our estimated impact is overstated. Further, the fuel consumption estimates upon which we are basing this energy effect analysis, which are discussed in full in sections 5.4 and 5.5 of the RIA, do not reflect the potential fuel savings associated with automatic engine stop/start (AESS) systems or other idle reduction technologies. Such technologies can provide significant fuel savings which could offset our projected estimates of increased fuel consumption. Nonetheless, our projections show that this rule could result in energy usage exceeding the 4,000 barrel per day threshold noted in E.O. 13211.

*I. National Technology Transfer Advancement Act*

As noted in the proposed rule, Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (''NTTAA''), Public Law No. 104–113, 12(d) (15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. 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. The NTTAA directs EPA to provide Congress, through OMB, explanations when the Agency decides not to use available and applicable voluntary consensus standards.

This rule references technical standards adopted by EPA through previous rulemakings. No new technical standards are established in this rule. The standards referenced in today's rule involve test procedures for measuring engine emissions. These measurement standards include those that were developed by EPA as well as the International Organization for Standardization (ISO) engine testing voluntary consensus standards, adopted in previous rulemakings. These standards have served EPA's emissions control goals well since their implementation and have been well accepted by industry. Therefore, EPA will continue to use the ISO and existing EPA-developed standards referenced in 40 CFR Parts 94 and 1065.

*J. Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*

Executive Order (EO) 12898 (59 FR 7629 (Feb. 16, 1994)) establishes federal executive policy on environmental justice. Its main provision directs federal agencies, to the greatest extent practicable and permitted by law, to make environmental justice part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations and low-income populations in the United States.

EPA has determined that this final rule will not have disproportionately high and adverse human health or environmental effects on minority or low-income populations because it increases the level of environmental protection for all affected populations without having any disproportionately high and adverse human health or environmental effects on any population, including any minority or low-income population.

This rulemaking will achieve significant reductions of various emissions from locomotive and marine diesel engines, including $NO_X$, PM, and air toxics. Exposure to these pollutants raises concerns regarding environmental health for the U.S. population in general including the minority populations and low-income populations that are the focus of the environmental justice executive order.

EPA has evaluated several regulatory strategies for reductions in emissions from locomotive and marine diesel engines, and we believe that we have selected the most stringent and effective control reasonably feasible at this time (in light of the technology and cost requirements of the Clean Air Act).

The emission reductions from the stringent new standards finalized in the locomotive and marine diesel rule will have large beneficial effects on communities in proximity to port, harbor, waterway, railway, and rail yard locations, including low-income and minority communities. In addition to stringent exhaust emission standards for freshly manufactured and

remanufactured engines, the final rule includes provisions targeted to further reduce emissions from regulated engines that directly impact low-income and minority communities. The idle reduction provision is one example: ''Even in very efficient railroad operations, locomotive engines spend a substantial amount of time idling, during which they emit harmful pollutants, consume fuel, create noise, and increase maintenance costs. A significant portion of this idling occurs in rail yards, as railcars and locomotives are transferred to build up trains. Many of these rail yards are in urban neighborhoods, close to where people live, work, and go to school'' (from section III.C(1)(c) of this preamble). The final rule includes a mandatory locomotive idle reduction requirement that will begin to take effect as early as 2008. Another example is the emission standards for freshly manufactured switch locomotives. Switch locomotives are major polluters in urban rail yards. These standards are earlier and more stringent than the line-haul locomotive standards, and include incentives for introducing cleaner switchers using Tier 4 nonroad engines. Further examples can be found in averaging, banking, and trading program provisions aimed at ensuring that emissions are not shifted from line-haul locomotives operating in rural areas to rail yards in urban communities.

EPA recently conducted an initial screening-level analysis of selected marine port areas and rail yards [209, 210] to better understand the populations, including minority and low-income, that are exposed to DPM emissions from these facilities. This screening-level analysis [211] indicates that at the 47 marine ports and 37 rail yards studied at least 13 million people, including a high percentage of low-income households, African-Americans, and Hispanics, live in the vicinity of these facilities and are exposed to higher levels of DPM than urban background levels. Thus, these residents will benefit from the controls being finalized in this action. See section II.A and II.B of this preamble and chapter 2 of the RIA for a discussion on the benefits of this rule, including the benefits to minority and low-income communities. Because those living in the vicinity of marine ports and rail yards are more likely to be low-income and minority residents, these populations will receive a significant benefit from this rule.

*K. Congressional Review Act*

The Congressional Review Act, 5 U.S.C. 801 et seq., as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the **Federal Register**. A Major rule cannot take effect until 60 days after it is published in the **Federal Register**. This action is a ''major rule'' as defined by 5 U.S.C. 804(2). This rule will be effective July 7, 2008.

## X. Statutory Provisions and Legal Authority

Statutory authority for the controls in this final rule can be found in sections 213 (which specifically authorizes controls on emissions from nonroad engines and vehicles), 203–209, 216, and 301 of the Clean Air Act (CAA), 42 U.S.C. 7547, 7522, 7523, 7424, 7525, 7541, 7542, 7543, 7550, and 7601.

## List of Subjects

*40 CFR Part 9*

Reporting and recordkeeping requirements.

*40 CFR Part 85*

Confidential business information, Imports, Labeling, Motor vehicle pollution, Reporting and recordkeeping requirements, Research, Warranties.

*40 CFR Part 86*

Administrative practice and procedure, Confidential business information, Labeling, Motor vehicle pollution, Reporting and recordkeeping requirements.

*40 CFR Part 89*

Environmental protection, Administrative practice and procedure, Confidential business information, Imports, Labeling, Motor vehicle pollution, Reporting and recordkeeping requirements, Research, Vessels, Warranties.

*40 CFR Part 92*

Environmental protection, Administrative practice and procedure, Air pollution control, Confidential business information, Imports, Incorporation by reference, Labeling, Penalties, Railroads, Reporting and recordkeeping requirements, Warranties.

*40 CFR Part 94*

Environmental protection, Administrative practice and procedure, Air pollution control, Confidential business information, Imports, Incorporation by reference, Labeling, Penalties, Vessels, Reporting and recordkeeping requirements, Warranties.

*40 CFR Part 1033*

Environmental protection, Administrative practice and procedure, Confidential business information, Incorporation by reference, Labeling, Penalties, Railroads, Reporting and recordkeeping requirements.

*40 CFR Part 1039*

Environmental protection, Administrative practice and procedure, Air pollution control, Confidential business information, Imports, Incorporation by reference, Labeling, Penalties, Reporting and recordkeeping requirements, Warranties.

*40 CFR Part 1042*

Environmental protection, Administrative practice and procedure, Air pollution control, Confidential business information, Imports, Incorporation by reference, Labeling, Penalties, Vessels, Reporting and recordkeeping requirements, Warranties.

*40 CFR Part 1065*

Environmental protection, Administrative practice and procedure, Incorporation by reference, Reporting and recordkeeping requirements, Research.

*40 CFR Part 1068*

Environmental protection, Administrative practice and procedure, Confidential business information, Imports, Motor vehicle pollution,

[209] ICF International. September 28, 2007. Estimation of diesel particulate matter concentration isopleths for marine harbor areas and rail yards. Memorandum to EPA under Work Assignment Number 0–3, Contract Number EP–C–06–094. This memo is available in Docket EPA–HQ–OAR–2003–0190.

[210] ICF International. September 28, 2007. Estimation of diesel particulate matter population exposure near selected harbor areas and rail yards. Memorandum to EPA under Work Assignment Number 0–3, Contract Number EP–C–06–094. This memo is available in Docket EPA–HQ–OAR–2003–0190.

[211] This type of screening analysis is an inexact tool and not appropriate for regulatory decision-making; it is useful in beginning to understand potential impacts and for illustrative purposes. Additionally, the emissions inventories used as inputs into our analysis are not official estimates and they likely underestimate overall emissions because they are not inclusive of all emission sources at the individual ports in our sample.

Penalties, Reporting and recordkeeping requirements, Warranties.

Dated: March 14, 2008.

**Stephen L. Johnson,**

*Administrator.*

■ For the reasons set forth in the preamble, chapter I of title 40 of the Code of Federal Regulations is amended as follows:

## PART 9—OMB APPROVALS UNDER THE PAPERWORK REDUCTION ACT

■ 1. The authority citation for part 9 continues to read as follows:

**Authority:** 7 U.S.C. 135 et seq., 136–136y; 15 U.S.C. 2001, 2003, 2005, 2006, 2601–2671; 21 U.S.C. 331j, 346a, 348; 31 U.S.C. 9701; 33 U.S.C. 1251 *et seq.*, 1311, 1313d, 1314, 1318 1321, 1326, 1330, 1342 1344, 1345(d) and (e), 1361; E.O. 11735, 38 FR 21243, 3 CFR, 1971–1975 Comp. p. 973; 42 U.S.C. 241, 242b, 243, 246, 300f, 300g, 300g–1, 300g–2, 300g–3, 300g–4, 300g–5, 300g–6, 300j–1, 300j–2, 300j–3, 300j–4, 300j–9, 1857 *et seq.*, 6901–6992k, 7401–7671q, 7542, 9601–9657, 11023, 11048.

■ 2. Section 9.1 is amended in the table by adding the center headings and the entries under those center headings in numerical order to read as follows:

### § 9.1 OMB approvals under the Paperwork Reduction Act.

* * * * *

| 40 CFR citation | OMB control No. |
|---|---|
| * * * * | |
| **Control of Emissions from Locomotives** | |
| 1033.825 | 2060–0287 |
| * * * * * | |
| **Control of Emissions From New and In-use Marine Compression-ignition Engines and Vessels** | |
| 1042.825 | 2060–0827 |
| * * * * * | |

* * * * *

## PART 85—CONTROL OF AIR POLLUTION FROM MOBILE SOURCES

■ 3. The authority citation for part 85 continues to read as follows:

**Authority:** 42 U.S.C. 7401–7671q.

## Subpart Y—[Amended]

■ 4. Section 85.2401 is amended by revising paragraphs (a)(7) and (a)(8) to read as follows:

### § 85.2401 To whom do these requirements apply?

(a) * * *

(7) Locomotives (See 40 CFR parts 92 and 1033);

(8) Marine engines (See 40 CFR parts 91, 94, and 1042 and MARPOL Annex VI, as applicable);

* * * * *

## PART 86—CONTROL OF EMISSIONS FROM NEW AND IN-USE HIGHWAY VEHICLES AND ENGINES

■ 5. The authority citation for part 86 continues to read as follows:

**Authority:** 42 U.S.C. 7401–7671q.

## Subpart A—[Amended]

■ 6. Section 86.007–11 is amended by revising paragraph (a)(2) introductory text to read as follows:

### § 86.007–11 Emission standards and supplemental requirements for 2007 and later model year diesel heavy-duty engines and vehicles.

* * * * *

(a) * * *

(2) The standards set forth in paragraph (a)(1) of this section refer to the exhaust emitted over the duty cycle specified in paragraphs (a)(2)(i) through (iii) of this section, where exhaust emissions are measured and calculated as specified in paragraphs (a)(2)(iv) and (v) of this section in accordance with the procedures set forth in subpart N of this part, except as noted in § 86.007–23(c)(2):

* * * * *

■ 7. Section 86.117–96 is amended by revising the first equation in paragraph (d)(2) to read as follows:

### § 86.117–96 Evaporative emission enclosure calibrations.

* * * * *

(d) * * *

(2) * * *

$$M_{HC} = \left(kV_n \quad 10^{-4}\right)\left(\frac{\left(C_{HC_f} - rC_{CH_3OH_f}\right)P_{B_f}}{T_f} - \frac{(C_{HC_i} - rC_{CH_3OH_i})P_{B_i}}{T_i}\right) + \left(M_{HC,out} - M_{HC,in}\right)$$

* * * * *

## Subpart N—[Amended]

■ 8. Section 86.1305–2010 is amended by revising paragraph (b) to read as follows:

### § 86.1305–2010 Introduction; structure of subpart.

* * * * *

(b) Use the applicable equipment and procedures for spark-ignition or compression-ignition engines in 40 CFR part 1065 to determine whether engines meet the duty-cycle emission standards in subpart A of this part. Measure the emissions of all regulated pollutants as specified in 40 CFR part 1065. Use the duty cycles and procedures specified in §§ 86.1333–2010, 86.1360–2007, and 86.1362–2007. Adjust emission results from engines using aftertreatment technology with infrequent regeneration events as described in § 86.004–28.

* * * * *

■ 9. Section 86.1333–2010 is amended by adding paragraph (d) to read as follows:

### § 86.1333–2010 Transient test cycle generation.

* * * * *

(d) Determine idle speeds as specified in § 86.1337–2007(a)(9).

■ 10. Section 86.1360–2007 is amended by adding paragraph (b)(3) to read as follows:

### § 86.1360–2007 Supplemental emission test; test cycle and procedures.

* * * * *

(b) * * *

(3) For engines certified using the ramped-modal cycle specified in § 86.1362, perform the three discrete test points described in paragraph (b)(2) of this section as follows:

(i) Allow the engine to idle as needed to complete equipment checks following the supplemental emission test described in this section, then operate the engine over the three additional discrete test points.

(ii) Validate the additional discrete test points as a composite test separate from the supplemental emission test, but in the same manner.

(iii) Use the emission data collected during the time interval from 35 to 5 seconds before the end of each mode (excluding transitions) to perform the MAEL calculations in paragraph (f) of this section.

* * * * *

**§ 86.1362–2007 [Amended]**

■ 11. Section 86.1362–2007 is amended by removing and reserving paragraph (d).

■ 12. A new § 86.1362–2010 is added to read as follows:

**§ 86.1362–2010 Steady-state testing with a ramped-modal cycle.**

This section describes how to test engines under steady-state conditions. For model years through 2009, manufacturers may use the mode order described in this section or in § 86.1362–2007. Starting in model year 2010 manufacturers must use the mode order described in this section with the following exception: for model year 2010, manufacturers may continue to use the cycle specified in § 86.1362–2007 as long as it does not adversely affect the ability to demonstrate compliance with the standards.

(a) Start sampling at the beginning of the first mode and continue sampling until the end of the last mode. Calculate emissions as described in 40 CFR 1065.650 and cycle statistics as described in 40 CFR 1065.514.

(b) Measure emissions by testing the engine on a dynamometer with the following ramped-modal duty cycle to determine whether it meets the applicable steady-state emission standards:

| RMC mode | Time in mode (seconds) | Engine speed [1 2] | Torque (percent) [2 3] |
|---|---|---|---|
| 1a Steady-state | 170 | Warm Idle | 0 |
| 1b Transition | 20 | Linear Transition | Linear Transition. |
| 2a Steady-state | 173 | A | 100 |
| 2b Transition | 20 | Linear Transition | Linear Transition. |
| 3a Steady-state | 219 | B | 50 |
| 3b Transition | 20 | B | Linear Transition. |
| 4a Steady-state | 217 | B | 75 |
| 4b Transition | 20 | Linear Transition | Linear Transition. |
| 5a Steady-state | 103 | A | 50 |
| 5b Transition | 20 | A | Linear Transition. |
| 6a Steady-state | 100 | A | 75 |
| 6b Transition | 20 | A | Linear Transition. |
| 7a Steady-state | 103 | A | 25 |
| 7b Transition | 20 | Linear Transition | Linear Transition. |
| 8a Steady-state | 194 | B | 100 |
| 8b Transition | 20 | B | Linear Transition. |
| 9a Steady-state | 218 | B | 25 |
| 9b Transition | 20 | Linear Transition | Linear Transition. |
| 10a Steady-state | 171 | C | 100 |
| 10b Transition | 20 | C | Linear Transition. |
| 11a Steady-state | 102 | C | 25 |
| 11b Transition | 20 | C | Linear Transition. |
| 12a Steady-state | 100 | C | 75 |
| 12b Transition | 20 | C | Linear Transition. |
| 13a Steady-state | 102 | C | 50 |
| 13b Transition | 20 | Linear Transition | Linear Transition. |
| 14 Steady-state | 168 | Warm Idle | 0 |

[1] Speed terms are defined in 40 CFR part 1065.
[2] Advance from one mode to the next within a 20-second transition phase. During the transition phase, command a linear progression from the speed or torque setting of the current mode to the speed or torque setting of the next mode.
[3] The percent torque is relative to maximum torque at the commanded engine speed.

(c) During idle mode, operate the engine at its warm idle as described in 40 CFR part 1065.

(d) See 40 CFR part 1065 for detailed specifications of tolerances and calculations.

(e) Perform the ramped-modal test with a warmed-up engine. If the ramped-modal test follows directly after testing over the Federal Test Procedure, consider the engine warm. Otherwise, operate the engine to warm it up as described in 40 CFR part 1065, subpart F.

■ 13. Section 86.1363–2007 is amended by revising paragraph (a) and the equation in paragraph (g)(1) to read as follows:

**§ 86.1363–2007 Steady-state testing with a discrete-mode cycle.**

* * * * *

(a) Use the following 13-mode cycle in dynamometer operation on the test engine:

| Mode No. | Engine speed [1] | Percent load [2] | Weighting factors | Mode length (minutes) [3] |
|---|---|---|---|---|
| 1 | Warm Idle | | 0.15 | 4 |
| 2 | A | 100 | 0.08 | 2 |
| 3 | B | 50 | 0.10 | 2 |
| 4 | B | 75 | 0.10 | 2 |
| 5 | A | 50 | 0.05 | 2 |
| 6 | A | 75 | 0.05 | 2 |
| 7 | A | 25 | 0.05 | 2 |
| 8 | B | 100 | 0.09 | 2 |
| 9 | B | 25 | 0.10 | 2 |

| Mode No. | Engine speed [1] | Percent load [2] | Weighting factors | Mode length (minutes) [3] |
|---|---|---|---|---|
| 10 | C | 100 | 0.08 | 2 |
| 11 | C | 25 | 0.05 | 2 |
| 12 | C | 75 | 0.05 | 2 |
| 13 | C | 50 | 0.05 | 2 |

[1] Speed terms are defined in 40 CFR part 1065.
[2] The percent torque is relative to the maximum torque at the commanded test speed.
[3] Upon Administrator approval, the manufacturer may use other mode lengths.

* * * * *

(g) * * *

(1) * * *

$$A_{WA} = \frac{\sum_{i=1}^{N}\left[A_{Mi} \cdot WF_i\right]}{\sum_{i=2}^{N}\left[A_{Pi} \cdot WF_i\right]}$$

* * * * *

## Subpart P—[Amended]

■ 14. Subpart P is amended by removing § 86.1504–94.

### §§ 86.1501–94 through 86.1544–84 [Redesignated]

■ 15. Redesignate §§ 86.1501–94 through 86.1544–84 as follows:

| Old section | New section |
|---|---|
| 86.1501–94 | 86.1501 |
| 86.1502–84 | 86.1502 |
| 86.1503–84 | 86.1503 |
| 86.1505–94 | 86.1505 |
| 86.1506–94 | 86.1506 |
| 86.1509–84 | 86.1509 |
| 86.1511–84 | 86.1511 |
| 86.1513–94 | 86.1513 |
| 86.1514–84 | 86.1514 |
| 86.1516–84 | 86.1516 |
| 86.1519–84 | 86.1519 |
| 86.1522–84 | 86.1522 |
| 86.1524–84 | 86.1524 |
| 86.1526–84 | 86.1526 |
| 86.1527–84 | 86.1527 |
| 86.1530–84 | 86.1530 |
| 86.1537–84 | 86.1537 |
| 86.1540–84 | 86.1540 |
| 86.1542–84 | 86.1542 |
| 86.1544–84 | 86.1544 |

■ 16. Newly desginated § 86.1506 is amended by adding paragraph (b) to read as follows:

### § 86.1506 Equipment required and specifications; overview.

* * * * *

(b) Through the 2009 model year, manufacturers may elect to use the appropriate test procedures in this part 86 instead of the procedures referenced in 40 CFR part 1065 without getting advance approval by the Administrator.

## PART 89—CONTROL OF EMISSIONS FROM NEW AND IN-USE NONROAD COMPRESSION-IGNITION ENGINES

■ 17. The authority citation for part 89 continues to read as follows:

**Authority:** 42 U.S.C. 7401–7671q.

## Subpart J—[Amended]

■ 18. A new § 89.916 is added to read as follows:

### § 89.916 Emergency-vessel exemption for marine engines below 37 kW.

The prohibitions in § 89.1003(a)(1) do not apply to new marine engines used in lifeboats and rescue boats as described in 40 CFR 94.914.

## PART 92—CONTROL OF AIR POLLUTION FROM LOCOMOTIVES AND LOCOMOTIVE ENGINES

■ 19. The authority citation for part 92 continues to read as follows:

**Authority:** 42 U.S.C. 7401–7671q.

■ 20. Section 92.1 is amended by revising paragraph (a) introductory text and adding paragraph (e) to read as follows:

### § 92.1 Applicability.

(a) Except as noted in paragraphs (b), (d) and (e) of this section, the provisions of this part apply to manufacturers, remanufacturers, owners and operators of:

* * * * *

(e) The provisions of this part do not apply for locomotives that are subject to the emissions standards of 40 CFR part 1033.

■ 21. Section 92.2 is amended by revising the definition for ''Freshly manufactured locomotive'' to read as follows:

### § 92.2 Definitions.

* * * * *

*Freshly manufactured locomotive* means a locomotive which is powered by a freshly manufactured engine, and which contains fewer than 25 percent previously used parts (weighted by the dollar value of the parts). See 40 CFR 1033.640 for information about how to calculate this.

* * * * *

■ 22. Section 92.12 is amended by revising paragraph (b) and adding paragraphs (i) and (j) to read as follows:

### § 92.12 Interim provisions.

* * * * *

(b) *Production line and in-use testing.* (1) The requirements of Subpart F of this part (i.e., production line testing) do not apply prior to January 1, 2002.

(2) The testing requirements of subpart F of this part (i.e., production line testing) do not apply to small manufacturers/remanufacturers prior to January 1, 2013. Note that the production line audit requirements apply as specified.

(3) The requirements of Subpart G of this part (i.e., in-use testing) only apply for locomotives and locomotive engines that become new on or after January 1, 2002.

(4) For locomotives and locomotive engines that are covered by a small business certificate of conformity, the requirements of Subpart G of this part (i.e., in-use testing) only apply for locomotives and locomotive engines that become new on or after January 1, 2007. We will also not require small remanufacturers to perform any in-use testing prior to January 1, 2013.

* * * * *

(i) *Diesel test fuels.* Manufacturers and remanufacturers may use LSD or ULSD test fuel to certify to the standards of this part, instead of the otherwise specified test fuel, provided PM emissions are corrected as described in this paragraph (i). Measure your PM emissions and determine your cycle-weighted emission rates as specified in subpart B of this part. If you test using LSD, add 0.04 g/bhp-hr to these weighted emission rates to determine your official emission result. If you test using ULSD, add 0.05 g/bhp-hr to these weighted emission rates to determine your official emission result.

(j) *Subchapter U provisions.* For model years 2008 through 2012, certain locomotives will be subject to the requirements of this part 92 while others will be subject to the

requirements of 40 CFR subchapter U. This paragraph (j) describes allowances for manufacturers or remanufacturers to ask for flexibility in transitioning to the new regulations.

(1) You may ask to use a combination of the test procedures of this part and those of 40 CFR part 1033. We will approve your request if you show us that it does not affect your ability to show compliance with the applicable emission standards. Generally this requires that the combined procedures would result in emission measurements at least as high as those that would be measured using the procedures specified in this part. Alternatively, you may demonstrate that the combined effects of the procedures is small relative to your compliance margin (the degree to which your locomotives are below the applicable standards).

(2) You may ask to comply with the administrative requirements of 40 CFR part 1033 and 1068 instead of the equivalent requirements of this part.

■ 23. Section 92.204 is amended by adding paragraph (f) to read as follows:

**§ 92.204 Designation of engine families.**

* * * * *

(f) Remanufactured Tier 2 locomotives may be included in the same engine family as freshly manufactured Tier 2 locomotives, provided such engines are used for locomotive models included in the engine family.

■ 24. Section 92.206 is amended by revising paragraph (c) to read as follows:

**§ 92.206 Required information.**

* * * * *

(c) Emission data, including exhaust methane data in the case of locomotives or locomotive engines subject to a non-methane hydrocarbon standard, on such locomotives or locomotive engines tested in accordance with applicable test procedures of subpart B of this part. These data shall include zero hour data, if generated. In lieu of providing the emission data required by paragraph (a) of this section, the Administrator may, upon request of the manufacturer or remanufacturer, allow the manufacturer or remanufacturer to demonstrate (on the basis of previous emission tests, development tests, or other testing information) that the engine or locomotive will conform with the applicable emission standards of § 92.8. The requirement to measure smoke emissions is waived for certification and production line testing of Tier 2 locomotives, except where there is reason to believe the locomotives do not meet the applicable smoke standards.

* * * * *

■ 25. Section 92.208 is amended by revising paragraph (a) to read as follows:

**§ 92.208 Certification.**

(a) This paragraph (a) applies to manufacturers of new locomotives and new locomotive engines. If, after a review of the application for certification, test reports and data acquired from a freshly manufactured locomotive or locomotive engine or from a development data engine, and any other information required or obtained by EPA, the Administrator determines that the application is complete and that the engine family meets the requirements of the Act and this part, he/she will issue a certificate of conformity with respect to such engine family except as provided by paragraph (c)(3) of this section. The certificate of conformity is valid for each engine family starting with the indicated effective date, but it is not valid for any production after December 31 of the model year for which it is issued (except as specified in (92.12). The certificate of conformity is valid upon such terms and conditions as the Administrator deems necessary or appropriate to ensure that the production engines covered by the certificate will meet the requirements of the Act and of this part.

* * * * *

■ 26. Section 92.212 is amended by revising paragraph (b)(2)(iv) to read as follows:

**§ 92.212 Labeling.**

* * * * *

(b) * * *

(2) * * *

(iv) The label may be made up of more than one piece permanently attached to the same locomotive part, except for Tier 0 locomotives, where you may attach it to separate parts.

* * * * *

■ 27. Section 92.501 is amended by adding paragraph (c) to read as follows:

**§ 92.501 Applicability.**

* * * * *

(c) Manufacturers may comply with the provisions of subpart D of 40 CFR part 1033 instead of the provisions of this subpart F.

■ 28. A new § 92.1007 is added to read as follows:

**§ 92.1007 Remanufacturing requirements.**

(a) See the definition of ''remanufacture'' in § 92.2 to determine if you are remanufacturing your locomotive or engine. (**Note:** Replacing power assemblies one at a time may qualify as remanufacturing, depending on the interval between replacement.)

(b) See the definition of ''new'' in § 92.2 to determine if remanufacturing your locomotive makes it subject to the requirements of this part. If the locomotive is considered to be new, it is subject to the certification requirements of this part, unless it is exempt under subpart J of this part. The standards to which your locomotive is subject will depend on factors such as the following:

(1) Its date of original manufacture.

(2) The FEL to which it was previously certified, which is listed on the ''Locomotive Emission Control Information'' label.

(3) Its power rating (whether it is above or below 2300 hp).

(4) The calendar year in which it is being remanufactured.

(c) You may comply with the certification requirements of this part for your remanufactured locomotive by either obtaining your own certificate of conformity as specified in subpart C of this part or by having a certifying remanufacturer include your locomotive under its certificate of conformity. In either case, your remanufactured locomotive must be covered by a certificate before it is reintroduced into service.

(d) If you do not obtain your own certificate of conformity from EPA, contact a certifying remanufacturer to have your locomotive included under its certificate of conformity. Confirm with the certificate holder that your locomotive's model, date of original manufacture, previous FEL, and power rating allow it to be covered by the certificate. You must do all of the following:

(1) Comply with the certificate holder's emission-related installation instructions.

(2) Provide to the certificate holder the information it identifies as necessary to comply with the requirements of this part.

(e) For parts unrelated to emissions and emission-related parts not addressed by the certificate holder in the emission-related installation instructions, you may use parts from any source. For emission-related parts listed by the certificate holder in the emission-related installation instructions, you must either use the specified parts or parts certified under 40 CFR 1033.645 for remanufacturing. If you believe that the certificate holder has included as emission-related parts, parts that are actually unrelated to emissions, you may ask us to exclude such parts from the emission-related installation instructions. (**Note:** This

paragraph (e) does not apply with respect to parts for maintenance other than remanufacturing; see § 92.1004 for provisions related to general maintenance.)

(f) Failure to comply with this section is a violation of § 92.1102(a)(1).

## PART 94—CONTROL OF EMISSIONS FROM MARINE COMPRESSION-IGNITION ENGINES

■ 29. The authority citation for part 94 continues to read as follows:

**Authority:** 42 U.S.C. 7401–7671q.

### Subpart A— [Amended]

■ 30. Section 94.1 is amended by revising paragraph (b) to read as follows:

#### § 94.1 Applicability.

* * * * *

(b) Notwithstanding the provisions of paragraph (c) of this section, the requirements and prohibitions of this part do not apply with respect to the engines identified in paragraphs (a)(1) and (2) of this section for any of the following engines:

(1) Marine engines with rated power below 37 kW.

(2) Marine engines on foreign vessels.

(3) Marine engines subject to the standards of 40 CFR part 1042.

* * * * *

■ 31. Section 94.2 is amended by revising paragraph (1)(ii) of the definition for ''New vessel'' and adding definitions for ''Nonroad'' and ''Nonroad engine'' in alphabetical order to read as follows:

#### § 94.2 Definitions.

* * * * *

*New vessel* means:

(1)(i) * * *

(ii) For vessels with no Category 3 engines, a vessel that has been modified such that the value of the modifications exceeds 50 percent of the value of the modified vessel. The value of the modification is the difference in the assessed value of the vessel before the modification and the assessed value of the vessel after the modification. Use the following equation to determine if the fractional value of the modification exceeds 50 percent:

Percent of value = [(Value after modification) – (Value before modification)] × ( 100% ÷ (Value after modification)

* * * * *

*Nonroad* means relating to nonroad engines, or vessels or equipment that include nonroad engines.

*Nonroad engine* has the meaning given in 40 CFR 1068.30. In general, this means all internal-combustion engines except motor vehicle engines, stationary engines, engines used solely for competition, or engines used in aircraft.

* * * * *

■ 32. Section 94.12 is amended by adding paragraph (i) to read as follows:

#### § 94.12 Interim provisions.

* * * * *

(i) *Early use of future provisions.* For model years 2009 through 2013, certain marine engines will be subject to the requirements of this part 94 while others will be subject to the requirements of 40 CFR part 1042. Manufacturers may ask for flexibility in making the transition to the new regulations as follows:

(1) You may ask to use a combination of the test procedures of this part and those of 40 CFR part 1042. This might include the early use of the duty cycles and NTE specifications that apply for Tier 3 or Tier 4 engines. We will approve your request only if you show us that it does not affect your ability to demonstrate compliance with the applicable emission standards. This generally requires that the combined procedures would result in emission measurements at least as high as those that would be measured using the procedures specified in this part. Alternatively, you may demonstrate that the combined effects of the procedures is small relative to your compliance margin (the degree to which your engines are below the applicable standards).

(2) You may ask to comply with the administrative requirements of 40 CFR parts 1042 and 1068 instead of the equivalent requirements of this part.

### Subpart B—[Amended]

■ 33. Section 94.108 is amended by adding paragraph (a)(4) and revising paragraph (d) to read as follows:

#### § 94.108 Test fuels.

(a) * * *

(4) Manufacturers may perform testing using the low-sulfur diesel test fuel or the ultra low-sulfur diesel test fuel specified in 40 CFR part 1065.

* * * * *

(d) *Correction for sulfur*—(1) *High sulfur fuel.* (i) Particulate emission measurements from Category 1 or Category 2 engines without exhaust aftertreatment obtained using a diesel fuel containing more than 0.40 weight percent sulfur may be adjusted to a sulfur content of 0.40 weight percent.

(ii) Adjustments to the particulate measurement for using high sulfur fuel shall be made using the following equation:

$$PM_{adj}=PM-[BSFC \times 0.0917 \times (FSF-0.0040)]$$

Where:

$PM_{adj}$=adjusted measured PM level [g/kW-hr]

PM=measured weighted PM level [g/kW-hr]

BSFC=measured brake specific fuel consumption [g/kW-hr]

FSF=fuel sulfur weight fraction

(2) *Low sulfur fuel.* (i) Particulate emission measurements from Category 1 or Category 2 engines without exhaust aftertreatment obtained using diesel fuel containing less than 0.03 weight percent sulfur shall be adjusted to a sulfur content of 0.20 weight percent.

(ii) Adjustments to the particulate measurement for using ultra low-sulfur fuel shall be made using the following equation:

$$PM_{adj}=PM+[BSFC \times 0.0917 \times (0.0020-FSF)]$$

Where:

$PM_{adj}$=adjusted measured PM level [g/kW-hr]

PM=measured weighted PM level [g/kW-hr]

BSFC=measured brake specific fuel consumption [g/kW-hr]

FSF=fuel sulfur weight fraction

* * * * *

### Subpart C—[Amended]

■ 34. Section 94.208 is amended by revising paragraph (a) to read as follows:

#### § 94.208 Certification.

(a) If, after a review of the application for certification, test reports and data acquired from an engine or from a development data engine, and any other information required or obtained by EPA, the Administrator determines that the application is complete and that the engine family meets the requirements of the Act and this part, he/she will issue a certificate of conformity with respect to such engine family, except as provided by paragraph (c)(3) of this section. The certificate of conformity is valid for each engine family starting with the indicated effective date, but it is not valid for any production after December 31 of the model year for which it is issued. The certificate of conformity is valid upon such terms and conditions as the Administrator deems necessary or appropriate to ensure that the production engines covered by the certificate will meet the requirements of the Act and of this part.

* * * * *

■ 35. Section 94.209 is amended by revising paragraph (a) introductory text to read as follows:

**§ 94.209 Special provisions for post-manufacture marinizers and small-volume manufacturers.**

* * * * *

(a) *Broader engine families.* Instead of the requirements of § 94.204, an engine family may consist of any or all of a manufacturer's engines within a given category. This does not change any of the requirements of this part for showing that an engine family meets emission standards. To be eligible to use the provisions of this paragraph (a), the manufacturer must demonstrate one of the following:

* * * * *

## Subpart F—[Amended]

■ 36. Section 94.501 is amended by adding paragraph (c) to read as follows:

**§ 94.501 Applicability.**

* * * * *

(c) Manufacturers may comply with the provisions of 40 CFR part 1042, subpart D, instead of the provisions of this subpart F.

## Subpart J—[Amended]

■ 37. A new § 94.914 is added to read as follows:

**§ 94.914 Emergency vessel exemption.**

(a) Except as specified in paragraph (c) of this section, the prohibitions in § 94.1103(a)(1) do not apply to a new engine that is subject to Tier 2 standards according to the following provisions:

(1) The engine must be intended for installation in a lifeboat or a rescue boat as specified in 40 CFR 1042.625(a)(1)(i) or (ii).

(2) This exemption is available from the initial effective date for the Tier 2 standards until the engine model (or an engine of comparable size, weight, and performance) has been certified as complying with the Tier 2 standards and Coast Guard requirements. For example, this exemption would apply for new engine models that have not yet been certified to the Tier 2 standards.

(3) The engine must meet the Tier 1 emission standards specified in § 94.8.

(b) If you introduce an engine into U.S. commerce under this section, you must meet the labeling requirements in § 94.212, but add the following statement instead of the compliance statement in § 94.212(b)(6):

THIS ENGINE DOES NOT COMPLY WITH CURRENT U.S. EPA EMISSION STANDARDS UNDER 40 CFR 94.914 AND IS FOR USE SOLELY IN LIFEBOATS OR RESCUE BOATS (COAST GUARD APPROVAL SERIES 160.135 OR 160.156). INSTALLATION OR USE OF THIS ENGINE IN ANY OTHER APPLICATION MAY BE A VIOLATION OF FEDERAL LAW SUBJECT TO CIVIL PENALTY.

(c) Introducing into commerce a vessel containing an engine exempted under this section violates the prohibitions in § 94.1103(a)(1) where the vessel is not a lifeboat or rescue boat, unless it is exempt under a different provision. Similarly, using such an engine or vessel as something other than a lifeboat or rescue boat as specified in paragraph (a) of this section violates the prohibitions in § 94.1103(a)(1), unless it is exempt under a different provision.

■ 38. A new part 1033 is added to subchapter U of chapter I to read as follows:

## PART 1033—CONTROL OF EMISSIONS FROM LOCOMOTIVES

### Subpart A—Overview and Applicability

Sec.
1033.1 Applicability.
1033.5 Exemptions and exclusions.
1033.10 Organization of this part.
1033.15 Other regulation parts that apply for locomotives.

### Subpart B—Emission Standards and Related Requirements

1033.101 Exhaust emission standards.
1033.102 Transition to the standards of this part.
1033.110 Emission diagnostics—general requirements.
1033.112 Emission diagnostics for SCR systems.
1033.115 Other requirements.
1033.120 Emission-related warranty requirements.
1033.125 Maintenance instructions.
1033.130 Instructions for engine remanufacturing or engine installation.
1033.135 Labeling.
1033.140 Rated power.
1033.150 Interim provisions.

### Subpart C—Certifying Engine Families

1033.201 General requirements for obtaining a certificate of conformity.
1033.205 Applying for a certificate of conformity.
1033.210 Preliminary approval.
1033.220 Amending maintenance instructions.
1033.225 Amending applications for certification.
1033.230 Grouping locomotives into engine families.
1033.235 Emission testing required for certification.
1033.240 Demonstrating compliance with exhaust emission standards.
1033.245 Deterioration factors.
1033.250 Reporting and recordkeeping.
1033.255 EPA decisions.

### Subpart D—Manufacturer and Remanufacturer Production Line Testing and Audit Programs

1033.301 Applicability.
1033.305 General requirements.
1033.310 Sample selection for testing.
1033.315 Test procedures.
1033.320 Calculation and reporting of test results.
1033.325 Maintenance of records; submittal of information.
1033.330 Compliance criteria for production line testing.
1033.335 Remanufactured locomotives: installation audit requirements.
1033.340 Suspension and revocation of certificates of conformity.

### Subpart E—In-use Testing

1033.401 Applicability.
1033.405 General provisions.
1033.410 In-use test procedure.
1033.415 General testing requirements.
1033.420 Maintenance, procurement and testing of in-use locomotives.
1033.425 In-use test program reporting requirements.

### Subpart F—Test Procedures

1033.501 General provisions.
1033.505 Ambient conditions.
1033.510 Auxiliary power units.
1033.515 Discrete-mode steady-state emission tests of locomotives and locomotive engines.
1033.520 Alternative ramped modal cycles.
1033.525 Smoke testing.
1033.530 Duty cycles and calculations.
1033.535 Adjusting emission levels to account for infrequently regenerating aftertreatment devices.

### Subpart G—Special Compliance Provisions

1033.601 General compliance provisions.
1033.610 Small railroad provisions.
1033.615 Voluntarily subjecting locomotives to the standards of this part.
1033.620 Hardship provisions for manufacturers and remanufacturers.
1033.625 Special certification provisions for non-locomotive-specific engines.
1033.630 Staged-assembly and delegated assembly exemptions.
1033.640 Provisions for repowered and refurbished locomotives.
1033.645 Non-OEM component certification program.
1033.650 Incidental use exemption for Canadian and Mexican locomotives.
1033.655 Special provisions for certain Tier 0/Tier 1 locomotives.

### Subpart H—Averaging, Banking, and Trading for Certification

1033.701 General provisions.
1033.705 Calculating emission credits.
1033.710 Averaging emission credits.
1033.715 Banking emission credits.
1033.720 Trading emission credits.
1033.722 Transferring emission credits.
1033.725 Requirements for your application for certification.
1033.730 ABT reports.
1033.735 Required records.
1033.740 Credit restrictions.
1033.745 Compliance with the provisions of this subpart.
1033.750 Changing a locomotive's FEL at remanufacture.

**Subpart I—Requirements for Owners and Operators**

1033.801 Applicability.
1033.805 Remanufacturing requirements.
1033.810 In-use testing program.
1033.815 Maintenance, operation, and repair.
1033.820 In-use locomotives.
1033.825 Refueling requirements.

**Subpart J—Definitions and Other Reference Information**

1033.901 Definitions.
1033.905 Symbols, acronyms, and abbreviations.
1033.915 Confidential information.
1033.920 How to request a hearing.

**Authority:** 42 U.S.C. 7401–7671q.

## Subpart A—Overview and Applicability

### § 1033.1 Applicability.

The regulations in this part 1033 apply for all new locomotives and all locomotives containing a new locomotive engine, except as provided in § 1033.5.

(a) Standards begin to apply each time a locomotive or locomotive engine is originally manufactured or otherwise becomes new (defined in § 1033.901). The requirements of this part continue to apply as specified after locomotives cease to be new.

(b) Standards apply to the locomotive. However, in certain cases, the manufacturer/remanufacturer is allowed to test a locomotive engine instead of a complete locomotive, such as for certification. Also, you are not required to complete assembly of a locomotive to obtain a certificate of conformity for it, provided you meet the definition of ''manufacturer'' or ''remanufacturer'' (as applicable) in § 1033.901. For example, an engine manufacturer may obtain a certificate for locomotives which it does not manufacture, if the locomotives use its engines.

(c) Standards apply based on the year in which the locomotive was originally manufactured. The date of original manufacture is generally the date on which assembly is completed for the first time. For example, all locomotives originally manufactured in calendar years 2002, 2003, and 2004 are subject to the Tier 1 emission standards for their entire service lives.

(d) The following provisions apply when there are multiple persons meeting the definition of manufacturer or remanufacturer in § 1033.901:

(1) Each person meeting the definition of manufacturer must comply with the requirements of this part that apply to manufacturers; and each person meeting the definition of remanufacturer must comply with the requirements of this part that apply to remanufacturers. However, if one person complies with a specific requirement for a given locomotive, then all manufacturers/remanufacturers are deemed to have complied with that specific requirement.

(2) We will apply the requirements of subparts C, D, and E of this part to the manufacturer/remanufacturer that obtains the certificate of conformity for the locomotive. Other manufacturers and remanufacturers are required to comply with the requirements of subparts C, D, and E of this part only when notified by us. In our notification, we will specify a reasonable time period in which you need to comply with the requirements identified in the notice. See § 1033.601 for the applicability of 40 CFR part 1068 to these other manufacturers and remanufacturers.

(3) For example, we may require a railroad that installs certified kits but does not hold the certificate to perform production line auditing of the locomotives that it remanufactures. However, if we did, we would allow the railroad a reasonable amount of time to develop the ability to perform such auditing.

(e) The provisions of this part apply as specified for locomotives manufactured or remanufactured on or after July 7, 2008. See § 1033.102 to determine whether the standards of this part or the standards of 40 CFR part 92 apply for model years 2008 through 2012. For example, for a locomotive that was originally manufactured in 2007 and remanufactured on April 10, 2014, the provisions of this part begin to apply on April 10, 2014.

### § 1033.5 Exemptions and exclusions.

(a) Subpart G of this part exempts certain locomotives from the standards of this part.

(b) The definition of ''locomotive'' in § 1033.901 excludes certain vehicles. In general, the engines used in such excluded equipment are subject to standards under other regulatory parts. For example, see 40 CFR part 1039 for requirements that apply to diesel engines used in equipment excluded from the definition of ''locomotive'' in § 1033.901. The following locomotives are also excluded from the provisions of this part 1033:

(1) Historic locomotives powered by steam engines. For a locomotive that was originally manufactured after January 1, 1973 to be excluded under this paragraph (b)(1), it may not use any internal combustion engines and must be used only for historical purposes such as at a museum or similar public attraction.

(2) Locomotives powered only by an external source of electricity.

(c) The requirements and prohibitions of this part apply only for locomotives that have become ''new'' (as defined in § 1033.901) on or after July 7, 2008.

(d) The provisions of this part do not apply for any auxiliary engine that only provides hotel power. In general, these engines are subject to the provisions of 40 CFR part 1039. However, depending on the engine cycle, model year and power rating, the engines may be subject to other regulatory parts instead.

(e) Manufacturers and owners of locomotives that operate only on non-standard gauge rails may ask us to exclude such locomotives from this part by excluding them from the definition of ''locomotive''.

### § 1033.10 Organization of this part.

The regulations in this part 1033 contain provisions that affect locomotive manufacturers, remanufacturers, and others. However, the requirements of this part are generally addressed to the locomotive manufacturer/remanufacturer. The term ''you'' generally means the manufacturer/remanufacturer, as defined in § 1033.901. This part 1033 is divided into the following subparts:

(a) Subpart A of this part defines the applicability of part 1033 and gives an overview of regulatory requirements.

(b) Subpart B of this part describes the emission standards and other requirements that must be met to certify locomotives under this part. Note that § 1033.150 discusses certain interim requirements and compliance provisions that apply only for a limited time.

(c) Subpart C of this part describes how to apply for a certificate of conformity.

(d) Subpart D of this part describes general provisions for testing and auditing production locomotives.

(e) Subpart E of this part describes general provisions for testing in-use locomotives.

(f) Subpart F of this part and 40 CFR part 1065 describe how to test locomotives and engines.

(g) Subpart G of this part and 40 CFR part 1068 describe requirements, prohibitions, exemptions, and other provisions that apply to locomotive manufacturer/remanufacturers, owners, operators, and all others.

(h) Subpart H of this part describes how you may generate and use emission credits to certify your locomotives.

(i) Subpart I of this part describes provisions for locomotive owners and operators.

(j) Subpart J of this part contains definitions and other reference information.

**§ 1033.15 Other regulation parts that apply for locomotives.**

(a) Part 1065 of this chapter describes procedures and equipment specifications for testing engines. Subpart F of this part 1033 describes how to apply the provisions of part 1065 of this chapter to test locomotives to determine whether they meet the emission standards in this part.

(b) The requirements and prohibitions of part 1068 of this chapter apply to everyone, including anyone who manufactures, remanufactures, imports, maintains, owns, or operates any of the locomotives subject to this part 1033. See § 1033.601 to determine how to apply the part 1068 regulations for locomotives. Part 1068 of this chapter describes general provisions, including the following areas:

(1) Prohibited acts and penalties for locomotive manufacturer/remanufacturers and others.

(2) Exclusions and exemptions for certain locomotives.

(3) Importing locomotives.

(4) Selective enforcement audits of your production.

(5) Defect reporting and recall.

(6) Procedures for hearings.

(c) Other parts of this chapter apply if referenced in this part.

## Subpart B—Emission Standards and Related Requirements

**§ 1033.101 Exhaust emission standards.**

See §§ 1033.102 and 1033.150 to determine how the emission standards of this section apply before 2023.

(a) *Emission standards for line-haul locomotives.* Exhaust emissions from your new locomotives may not exceed the applicable emission standards in Table 1 to this section during the useful life of the locomotive. (**Note:** § 1033.901 defines locomotives to be ''new'' when originally manufactured and when remanufactured.) Measure emissions using the applicable test procedures described in subpart F of this part.

TABLE 1 TO § 1033.101.—LINE-HAUL LOCOMOTIVE EMISSION STANDARDS

| Year of original manufacture | Tier of standards | Standards (g/bhp-hr) | | | |
|---|---|---|---|---|---|
| | | $NO_X$ | PM | HC | CO |
| 1973–1992 [a] | Tier 0 [b] | 8.0 | 0.22 | 1.00 | 5.0 |
| 1993 [a]–2004 | Tier 1 [b] | 7.4 | 0.22 | 0.55 | 2.2 |
| 2005–2011 | Tier 2 [b] | 5.5 | [e] 0.10 | 0.30 | 1.5 |
| 2012–2014 | Tier 3 [c] | 5.5 | 0.10 | 0.30 | 1.5 |
| 2015 or later | Tier 4 [d] | 1.3 | 0.03 | 0.14 | 1.5 |

[a] Locomotive models that were originally manufactured in model years 1993 through 2001, but that were not originally equipped with a separate coolant system for intake air are subject to the Tier 0 rather than the Tier 1 standards.
[b] Line-haul locomotives subject to the Tier 0 through Tier 2 emission standards must also meet switch standards of the same tier.
[c] Tier 3 line-haul locomotives must also meet Tier 2 switch standards.
[d] Manufacturers may elect to meet a combined $NO_X$+HC standard of 1.4 g/bhp-hr instead of the otherwise applicable Tier 4 $NO_X$ and HC standards, as described in paragraph (j) of this section.
[e] The PM standard for newly remanufactured Tier 2 line-haul locomotives is 0.20 g/bhp-hr until January 1, 2013, except as specified in § 1033.150(a).

(b) *Emission standards for switch locomotives.* Exhaust emissions from your new locomotives may not exceed the applicable emission standards in Table 2 to this section during the useful life of the locomotive. (**Note:** § 1033.901 defines locomotives to be ''new'' when originally manufactured and when remanufactured.) Measure emissions using the applicable test procedures described in subpart F of this part.

TABLE 2 TO § 1033.101.—SWITCH LOCOMOTIVE EMISSION STANDARDS

| Year of original manufacture | Tier of standards | Standards (g/bhp-hr) | | | |
|---|---|---|---|---|---|
| | | $NO_X$ | PM | HC | CO |
| 1973–2001 | Tier 0 | 11.8 | 0.26 | 2.10 | 8.0 |
| 2002–2004 | Tier 1 [a] | 11.0 | 0.26 | 1.20 | 2.5 |
| 2005–2010 | Tier 2 [a] | 8.1 | [b] 0.13 | 0.60 | 2.4 |
| 2011–2014 | Tier 3 | 5.0 | 0.10 | 0.60 | 2.4 |
| 2015 or later | Tier 4 | [c] 1.3 | 0.03 | [c] 0.14 | 2.4 |

[a] Switch locomotives subject to the Tier 1 through Tier 2 emission standards must also meet line-haul standards of the same tier.
[b] The PM standard for new Tier 2 switch locomotives is 0.24 g/bhp-hr until January 1, 2013, except as specified in § 1033.150(a).
[c] Manufacturers may elect to meet a combined $NO_X$+HC standard of 1.3 g/bhp-hr instead of the otherwise applicable Tier 4 $NO_X$ and HC standards, as described in paragraph (j) of this section.

(c) *Smoke standards.* The smoke opacity standards specified in Table 3 to this section apply only for locomotives certified to one or more PM standards or FELs greater than 0.05 g/bhp-hr. Smoke emissions, when measured in accordance with the provisions of Subpart F of this part, shall not exceed these standards.

TABLE 3 TO § 1033.101.—SMOKE STANDARDS FOR LOCOMOTIVES (PERCENT OPACITY)

| | Steady-state | 30-sec peak | 3-sec peak |
|---|---|---|---|
| Tier 0 | 30 | 40 | 50 |
| Tier 1 | 25 | 40 | 50 |

TABLE 3 TO § 1033.101.—SMOKE STANDARDS FOR LOCOMOTIVES (PERCENT OPACITY)—Continued

| | Steady-state | 30-sec peak | 3-sec peak |
|---|---|---|---|
| Tier 2 and later | 20 | 40 | 50 |

(d) *Averaging, banking, and trading.* You may generate or use emission credits under the averaging, banking, and trading (ABT) program as described in subpart H of this part to comply with the $NO_X$ and/or PM standards of this part. You may also use ABT to comply with the Tier 4 HC standards of this part as described in paragraph (j) of this section. Generating or using emission credits requires that you specify a family emission limit (FEL) for each pollutant you include in the ABT program for each engine family. These FELs serve as the emission standards for the engine family with respect to all required testing instead of the standards specified in paragraphs (a) and (b) of this section. No FEL may be higher than the previously applicable Tier of standards. For example, no FEL for a Tier 1 locomotive may be higher than the Tier 0 standard.

(e) *Notch standards.* (1) Exhaust emissions from locomotives may not exceed the notch standards specified in paragraph (e)(2) of this section, except as allowed in paragraph (e)(3) of this section, when measured using any test procedures under any test conditions.

(2) Except as specified in paragraph (e)(5) of this section, calculate the applicable notch standards for each pollutant for each notch from the certified notch emission rate as follows:

$$\text{Notch standard} = (E_i) \times (1.1 + (1 - ELH_i/\text{std}))$$

Where:

$E_i$ = The deteriorated brake-specific emission rate (for pollutant i) for the notch (i.e., the brake-specific emission rate calculated under subpart F of this part, adjusted by the deterioration factor in the application for certification); where i is $NO_X$, HC, CO or PM.

$ELH_i$ = The deteriorated line-haul duty-cycle weighted brake-specific emission rate for pollutant i, as reported in the application for certification, except as specified in paragraph (e)(6) of this section.

std = The applicable line-haul duty-cycle standard/FEL, except as specified in paragraph (e)(6) of this section.

(3) Exhaust emissions that exceed the notch standards specified in paragraph (e)(2) of this section are allowed only if one of the following is true:

(i) The same emission controls are applied during the test conditions causing the noncompliance as were applied during certification test conditions (and to the same degree).

(ii) The exceedance result from a design feature that was described (including its effect on emissions) in the approved application for certification, and is:

(A) Necessary for safety;

(B) Addresses infrequent regeneration of an aftertreatment device; or

(C) Otherwise allowed by this part.

(4) Since you are only required to test your locomotive at the highest emitting dynamic brake point, the notch caps that you calculate for the dynamic brake point that you test also apply for other dynamic brake points.

(5) No PM notch caps apply for locomotives certified to a PM standard or FEL of 0.05 g/bhp-hr or lower.

(6) For switch locomotives that are not subject to line-haul standards, $ELH^i$ equals the deteriorated switch duty-cycle weighted brake-specific emission rate for pollutant i and std is the applicable switch cycle standard/FEL.

(f) *Fuels.* The exhaust emission standards in this section apply for locomotives using the fuel type on which the locomotives in the engine family are designed to operate.

(1) You must meet the numerical emission standards for HC in this section based on the following types of hydrocarbon emissions for locomotives powered by the following fuels:

(i) Alcohol-fueled locomotives: THCE emissions for Tier 3 and earlier locomotives and NMHCE for Tier 4.

(ii) Gaseous-fueled locomotives: NMHC emissions.

(iii) Diesel-fueled and other locomotives: THC emissions for Tier 3 and earlier locomotives and NMHC for Tier 4. Note that manufacturers/remanufacturers may choose to not measure NMHC and assume that NMHC is equal to THC multiplied by 0.98 for diesel-fueled locomotives.

(2) You must certify your diesel-fueled locomotives to use the applicable grades of diesel fuel as follows:

(i) Certify your Tier 4 and later diesel-fueled locomotives for operation with only Ultra Low Sulfur Diesel (ULSD) fuel. Use ULSD as the test fuel for these locomotives.

(ii) Certify your Tier 3 and earlier diesel-fueled locomotives for operation with only ULSD fuel if they include sulfur-sensitive technology and you demonstrate compliance using a ULSD test fuel.

(iii) Certify your Tier 3 and earlier diesel-fueled locomotives for operation with either ULSD fuel or Low Sulfur Diesel (LSD) fuel if they do not include sulfur-sensitive technology or if you demonstrate compliance using an LSD test fuel (including commercial LSD fuel).

(iv) For Tier 1 and earlier diesel-fueled locomotives, if you demonstrate compliance using a ULSD test fuel, you must adjust the measured PM emissions upward by 0.01 g/bhp-hr to make them equivalent to tests with LSD. We will not apply this adjustment for our testing.

(g) *Useful life.* The emission standards and requirements in this subpart apply to the emissions from new locomotives for their useful life. The useful life is generally specified as MW-hrs and years, and ends when either of the values (MW-hrs or years) is exceeded or the locomotive is remanufactured.

(1) The minimum useful life in terms of MW-hrs is equal to the product of the rated horsepower multiplied by 7.50. The minimum useful life in terms of years is ten years. For locomotives originally manufactured before January 1, 2000 and not equipped with MW-hr meters, the minimum useful life is equal to 750,000 miles or ten years, whichever is reached first. See (1033.140 for provisions related to rated power.

(2) You must specify a longer useful life if the locomotive or locomotive engine is designed to last longer than the applicable minimum useful life. Recommending a time to remanufacture that is longer than the minimum useful life is one indicator of a longer design life.

(3) Manufacturers/remanufacturers of locomotives with non-locomotive-specific engines (as defined in (1033.901) may ask us (before certification) to allow a shorter useful life for an engine family containing only non-locomotive-specific engines. We may approve a shorter useful life, in MW-hrs of locomotive operation but not in years, if we determine that these locomotives will rarely operate longer than the shorter useful life. If engines identical to those in the engine family have already been produced and are in use, your demonstration must include documentation from such in-use engines. In other cases, your

demonstration must include an engineering analysis of information equivalent to such in-use data, such as data from research engines or similar engine models that are already in production. Your demonstration must also include any overhaul interval that you recommend, any mechanical warranty that you offer for the engine or its components, and any relevant customer design specifications. Your demonstration may include any other relevant information.

(4) Remanufacturers of locomotive or locomotive engine configurations that have been previously certified under paragraph (g)(3) of this section to a useful life that is shorter than the value specified in paragraph (g)(1) of this section may certify to that same shorter useful life value without request.

(5) In unusual circumstances, you may ask us to allow you to certify some locomotives in your engine family to a partial useful life. This allowance is limited to cases in which some or all of the locomotive(s power assemblies have been operated previously such that the locomotive will need to be remanufactured prior to the end of the otherwise applicable useful life. Unless we specify otherwise, define the partial useful life based on the total MW-hrs since the last remanufacture to be consistent with other locomotives in the family. For example, this may apply for a previously uncertified locomotive that becomes ''new'' when it is imported, but that was remanufactured two years earlier (representing 25 percent of the normal useful life period). If such a locomotive could be brought into compliance with the applicable standards without being remanufactured, you may ask to include it in your engine family for the remaining 75 percent of its useful life period.

(h) *Applicability for testing.* The emission standards in this subpart apply to all testing, including certification testing, production-line testing, and in-use testing.

(i) *Alternate CO standards.* Manufacturers/remanufacturers may certify Tier 0, Tier 1, or Tier 2 locomotives to an alternate CO emission standard of 10.0 g/bhp-hr instead of the otherwise applicable CO standard if they also certify those locomotives to alternate PM standards less than or equal to one-half of the otherwise applicable PM standard. For example, a manufacturer certifying Tier 1 locomotives to a 0.11 g/bhp-hr PM standard may certify those locomotives to the alternate CO standard of 10.0 g/bhp-hr.

(j) *Alternate* $NO_X$+HC standards for Tier 4. Manufacturers/remanufacturers may use credits accumulated through the ABT program to certify Tier 4 locomotives to an alternate $NO_X$+HC emission standard of 1.4 g/bhp-hr (instead of the otherwise applicable $NO_X$ and NMHC standards). You may use $NO_X$ credits to show compliance with this standard by certifying your family to a $NO_X$+HC FEL. Calculate the $NO_X$ credits needed as specified in subpart H of this part using the $NO_X$+HC emission standard and FEL in the calculation instead of the otherwise applicable $NO_X$ standard and FEL. You may not generate credits relative to the alternate standard or certify to the standard without using credits.

(k) *Upgrading.* Upgraded locomotives that were originally manufactured prior to January 1, 1973 are subject to the Tier 0 standards. (See the definition of upgrade in § 1033.901.)

(l) *Other optional standard provisions.* Locomotives may be certified to a higher tier of standards than would otherwise be required. Tier 0 switch locomotives may be certified to both the line-haul and switch cycle standards. In both cases, once the locomotives become subject to the additional standards, they remain subject to those standards for the remainder of their service lives.

**§ 1033.102 Transition to the standards of this part.**

(a) Except as specified in § 1033.150(a), the Tier 0 and Tier 1 standards of § 1033.101 apply for new locomotives beginning January 1, 2010, except as specified in § 1033.150(a). The Tier 0 and Tier 1 standards of 40 CFR part 92 apply for earlier model years.

(b) Except as specified in § 1033.150(a), the Tier 2 standards of § 1033.101 apply for new locomotives beginning January 1, 2013. The Tier 2 standards of 40 CFR part 92 apply for earlier model years.

(c) The Tier 3 and Tier 4 standards of § 1033.101 apply for the model years specified in that section.

**§ 1033.110 Emission diagnostics—general requirements.**

The provisions of this section apply if you equip your locomotives with a diagnostic system that will detect significant malfunctions in their emission-control systems and you choose to base your emission-related maintenance instructions on such diagnostics. See § 1033.420 for information about how to select and maintain diagnostic-equipped locomotives for in-use testing. Notify the owner/operator that the presence of this diagnostic system affects their maintenance obligations under § 1033.815. Except as specified in § 1033.112, this section does not apply for diagnostics that you do not include in your emission-related maintenance instructions. The provisions of this section address diagnostic systems based on malfunction-indicator lights (MILs). You may ask to use other indicators instead of MILs.

(a) The MIL must be readily visible to the operator. When the MIL goes on, it must display ''Check Emission Controls'' or a similar message that we approve. You may use sound in addition to the light signal.

(b) To ensure that owner/operators consider MIL illumination seriously, you may not illuminate it for malfunctions that would not otherwise require maintenance. This section does not limit your ability to display other indicator lights or messages, as long as they are clearly distinguishable from MILs affecting the owner/operator's maintenance obligations under § 1033.815.

(c) Control when the MIL can go out. If the MIL goes on to show a malfunction, it must remain on during all later engine operation until servicing corrects the malfunction. If the engine is not serviced, but the malfunction does not recur during the next 24 hours, the MIL may stay off during later engine operation.

(d) Record and store in computer memory any diagnostic trouble codes showing a malfunction that should illuminate the MIL. The stored codes must identify the malfunctioning system or component as uniquely as possible. Make these codes available through the data link connector as described in paragraph (e) of this section. You may store codes for conditions that do not turn on the MIL. The system must store a separate code to show when the diagnostic system is disabled (from malfunction or tampering). Provide instructions to the owner/operator regarding how to interpret malfunction codes.

(e) Make data, access codes, and devices accessible. Make all required data accessible to us without any access codes or devices that only you can supply. Ensure that anyone servicing your locomotive can read and understand the diagnostic trouble codes stored in the onboard computer with generic tools and information.

(f) Follow standard references for formats, codes, and connections.

**§ 1033.112 Emission diagnostics for SCR systems.**

Engines equipped with SCR systems using separate reductant tanks must also meet the requirements of this section in addition to the requirements of § 1033.110. This section does not apply for SCR systems using the engine's fuel as the reductant.

(a) The diagnostic system must monitor reductant quality and tank levels and alert operators to the need to refill the reductant tank before it is empty, or to replace the reductant if it does not meet your concentration specifications. Unless we approve other alerts, use a malfunction-indicator light (MIL) as specified in § 1033.110 and an audible alarm. You do not need to separately monitor reductant quality if you include an exhaust $NO_X$ sensor (or other sensor) that allows you to determine inadequate reductant quality. However, tank level must be monitored in all cases.

(b) Your onboard computer must record in nonvolatile computer memory all incidents of engine operation with inadequate reductant injection or reductant quality. It must record the total amount of operation without adequate reductant. It may total the operation by hours, work, or excess $NO_X$ emissions.

**§ 1033.115 Other requirements.**

Locomotives that are required to meet the emission standards of this part must meet the requirements of this section. These requirements apply when the locomotive is new (for freshly manufactured or remanufactured locomotives) and continue to apply throughout the useful life.

(a) *Crankcase emissions.* Crankcase emissions may not be discharged directly into the ambient atmosphere from any locomotive, except as follows:

(1) Locomotives may discharge crankcase emissions to the ambient atmosphere if the emissions are added to the exhaust emissions (either physically or mathematically) during all emission testing. If you take advantage of this exception, you must do both of the following things:

(i) Manufacture the locomotives so that all crankcase emissions can be routed into the applicable sampling systems specified in 40 CFR part 1065, consistent with good engineering judgment.

(ii) Account for deterioration in crankcase emissions when determining exhaust deterioration factors.

(2) For purposes of this paragraph (a), crankcase emissions that are routed to the exhaust upstream of exhaust aftertreatment during all operation are not considered to be discharged directly into the ambient atmosphere.

(b) *Adjustable parameters.* Locomotives that have adjustable parameters must meet all the requirements of this part for any adjustment in the approved adjustable range. You must specify in your application for certification the adjustable range of each adjustable parameter on a new locomotive or new locomotive engine to:

(1) Ensure that safe locomotive operating characteristics are available within that range, as required by section 202(a)(4) of the Clean Air Act (42 U.S.C. 7521(a)(4)), taking into consideration the production tolerances.

(2) Limit the physical range of adjustability to the maximum extent practicable to the range that is necessary for proper operation of the locomotive or locomotive engine.

(c) *Prohibited controls.* You may not design or produce your locomotives with emission control devices, systems, or elements of design that cause or contribute to an unreasonable risk to public health, welfare, or safety while operating. For example, this would apply if the locomotive emits a noxious or toxic substance it would otherwise not emit that contributes to such an unreasonable risk.

(d) *Evaporative and refueling controls.* For locomotives fueled with a volatile fuel you must design and produce them to minimize evaporative emissions during normal operation, including periods when the engine is shut down. You must also design and produce them to minimize the escape of fuel vapors during refueling. Hoses used to refuel gaseous-fueled locomotives may not be designed to be bled or vented to the atmosphere under normal operating conditions. No valves or pressure relief vents may be used on gaseous-fueled locomotives except as emergency safety devices that do not operate at normal system operating flows and pressures.

(e) *Altitude requirements.* All locomotives must be designed to include features that compensate for changes in altitude so that the locomotives will comply with the applicable emission standards when operated at any altitude less than:

(1) 7000 feet above sea level for line-haul locomotives.

(2) 5500 feet above sea level for switch locomotives.

(f) *Defeat devices.* You may not equip your locomotives with a defeat device. A defeat device is an auxiliary emission control device (AECD) that reduces the effectiveness of emission controls under conditions that the locomotive may reasonably be expected to encounter during normal operation and use.

(1) This does not apply to AECDs you identify in your certification application if any of the following is true:

(i) The conditions of concern were substantially included in the applicable duty cycle test procedures described in subpart F of this part.

(ii) You show your design is necessary to prevent locomotive damage or accidents.

(iii) The reduced effectiveness applies only to starting the locomotive.

(iv) The locomotive emissions when the AECD is functioning are at or below the notch caps of § 1033.101.

(g) *Idle controls.* All new locomotives must be equipped with automatic engine stop/start as described in this paragraph (g). All new locomotives must be designed to allow the engine(s) to be restarted at least six times per day without causing engine damage that would affect the expected interval between remanufacturing. Note that it is a violation of 40 CFR 1068.101(b)(1) to circumvent the provisions of this paragraph (g).

(1) Except as allowed by paragraph (g)(2) of this section, the stop/start systems must shut off the main locomotive engine(s) after 30 minutes of idling (or less).

(2) Stop/start systems may restart or continue idling for the following reasons:

(i) To prevent engine damage such as to prevent the engine coolant from freezing.

(ii) To maintain air pressure for brakes or starter system, or to recharge the locomotive battery.

(iii) To perform necessary maintenance.

(iv) To otherwise comply with federal regulations.

(4) You may ask to use alternate stop/start systems that will achieve equivalent idle control.

(5) See § 1033.201 for provisions that allow you to obtain a separate certificate for idle controls.

(6) It is not considered circumvention to allow a locomotive to idle to heat or cool the cab, provided such heating or cooling is necessary.

(h) *Power meters.* Tier 1 and later locomotives must be equipped with MW-hr meters (or the equivalent) consistent with the specifications of § 1033.140.

**§ 1033.120 Emission-related warranty requirements.**

(a) *General requirements.* Manufacturers/remanufacturers must warrant to the ultimate purchaser and each subsequent purchaser that the new

locomotive, including all parts of its emission control system, meets two conditions:

(1) It is designed, built, and equipped so it conforms at the time of sale to the ultimate purchaser with the requirements of this part.

(2) It is free from defects in materials and workmanship that may keep it from meeting these requirements.

(b) *Warranty period.* Except as specified in this paragraph, the minimum warranty period is one-third of the useful life. Your emission-related warranty must be valid for at least as long as the minimum warranty periods listed in this paragraph (b) in MW-hrs of operation and years, whichever comes first. You may offer an emission-related warranty more generous than we require. The emission-related warranty for the locomotive may not be shorter than any published warranty you offer without charge for the locomotive. Similarly, the emission-related warranty for any component may not be shorter than any published warranty you offer without charge for that component. If you provide an extended warranty to individual owners for any components covered in paragraph (c) of this section for an additional charge, your emission-related warranty must cover those components for those owners to the same degree. If the locomotive does not record MW-hrs, we base the warranty periods in this paragraph (b) only on years. The warranty period begins when the locomotive is placed into service, or back into service after remanufacture.

(c) *Components covered.* The emission-related warranty covers all components whose failure would increase a locomotive's emissions of any pollutant. This includes components listed in 40 CFR part 1068, Appendix I, and components from any other system you develop to control emissions. The emission-related warranty covers the components you sell even if another company produces the component. Your emission-related warranty does not cover components whose failure would not increase a locomotive's emissions of any pollutant. For remanufactured locomotives, your emission-related warranty does not cover used parts that are not replaced during the remanufacture.

(d) *Limited applicability.* You may deny warranty claims under this section if the operator caused the problem through improper maintenance or use, as described in 40 CFR 1068.115.

(e) *Owners manual.* Describe in the owners manual the emission-related warranty provisions from this section that apply to the locomotive.

**§ 1033.125 Maintenance instructions.**

Give the owner of each new locomotive written instructions for properly maintaining and using the locomotive, including the emission-control system. Include in the instructions a notification that owners and operators must comply with the requirements of subpart I of this part 1033. The emission-related maintenance instructions also apply to any service accumulation on your emission-data locomotives, as described in § 1033.245 and in 40 CFR part 1065. If you equip your locomotives with a diagnostic system that will detect significant malfunctions in their emission-control systems, specify the extent to which your emission-related maintenance instructions include such diagnostics.

**§ 1033.130 Instructions for engine remanufacturing or engine installation.**

(a) If you do not complete assembly of the new locomotive (such as selling a kit that allows someone else to remanufacture a locomotive under your certificate), give the assembler instructions for completing assembly consistent with the requirements of this part. Include all information necessary to ensure that the locomotive will be assembled in its certified configuration.

(b) Make sure these instructions have the following information:

(1) Include the heading: ''Emission-related assembly instructions''.

(2) Describe any instructions necessary to make sure the assembled locomotive will operate according to design specifications in your application for certification.

(3) Describe how to properly label the locomotive. This will generally include instructions to remove and destroy the previous Engine Emission Control Information label.

(4) State one of the following as applicable:

(i) ''Failing to follow these instructions when remanufacturing a locomotive or locomotive engine violates federal law (40 CFR 1068.105(b)), and may subject you to fines or other penalties as described in the Clean Air Act.''.

(ii) ''Failing to follow these instructions when installing this locomotive engine violates federal law (40 CFR 1068.105(b)), and may subject you to fines or other penalties as described in the Clean Air Act.''.

(c) You do not need installation instructions for locomotives you assemble.

(d) Provide instructions in writing or in an equivalent format. For example, you may post instructions on a publicly available Web site for downloading or printing. If you do not provide the instructions in writing, explain in your application for certification how you will ensure that each assembler is informed of the assembly requirements.

(e) Your emission-related assembly instructions may not include specifications for parts unrelated to emissions. For the basic mechanical parts listed in this paragraph (e), you may not specify a part manufacturer unless we determine that such a specification is necessary. You may include design specifications for such parts addressing the dimensions and material constraints as necessary. You may also specify a part number, as long you make it clear that alternate part suppliers may be used. This paragraph (e) covers the following parts or other parts we determine qualify as basic mechanical parts:

(1) Intake and exhaust valves.

(2) Intake and exhaust valve retainers.

(3) Intake and exhaust valve springs.

(4) Intake and exhaust valve rotators.

(5) Oil coolers.

**§ 1033.135 Labeling.**

As described in this section, each locomotive must have a label on the locomotive and a separate label on the engine. The label on the locomotive stays on the locomotive throughout its service life. It generally identifies the original certification of the locomotive, which is when it was originally manufactured for Tier 1 and later locomotives. The label on the engine is replaced each time the locomotive is remanufactured and identifies the most recent certification.

(a) *Serial numbers.* At the point of original manufacture, assign each locomotive and each locomotive engine a serial number or other unique identification number and permanently affix, engrave, or stamp the number on the locomotive and engine in a legible way.

(b) *Locomotive labels.* (1) Locomotive labels meeting the specifications of paragraph (b)(2) of this section must be applied as follows:

(i) The manufacturer must apply a locomotive label at the point of original manufacture.

(ii) The remanufacturer must apply a locomotive label at the point of original remanufacture, unless the locomotive was labeled by the original manufacturer.

(iii) Any remanufacturer certifying a locomotive to an FEL or standard different from the previous FEL or standard to which the locomotive was previously certified must apply a locomotive label.

(2) The locomotive label must meet all of the following criteria:

(i) The label must be permanent and legible and affixed to the locomotive in a position in which it will remain readily visible. Attach it to a locomotive chassis part necessary for normal operation and not normally requiring replacement during the service life of the locomotive. You may not attach this label to the engine or to any equipment that is easily detached from the locomotive. Attach the label so that it cannot be removed without destroying or defacing the label. For Tier 0 locomotives, the label may be made up of more than one piece, as long as all pieces are permanently attached to the locomotive.

(ii) The label must be lettered in the English language using a color that contrasts with the background of the label.

(iii) The label must include all the following information:

(A) The label heading: ''ORIGINAL LOCOMOTIVE EMISSION CONTROL INFORMATION.'' Manufacturers/remanufacturers may add a subheading to distinguish this label from the engine label described in paragraph (c) of this section.

(B) Full corporate name and trademark of the manufacturer (or remanufacturer).

(C) The applicable engine family and configuration identification. In the case of locomotive labels applied by the manufacturer at the point of original manufacture, this will be the engine family and configuration identification of the certificate applicable to the freshly manufactured locomotive. In the case of locomotive labels applied by a remanufacturer during remanufacture, this will be the engine family and configuration identification of the certificate under which the remanufacture is being performed.

(D) Date of original manufacture of the locomotive, as defined in § 1033.901.

(E) The standards/FELs to which the locomotive was certified and the following statement: ''THIS LOCOMOTIVE MUST COMPLY WITH THESE EMISSION LEVELS EACH TIME THAT IT IS REMANUFACTURED, EXCEPT AS ALLOWED BY 40 CFR 1033.750.''.

(3) Label diesel-fueled locomotives near the fuel inlet to identify the allowable fuels, consistent with § 1033.101. For example, Tier 4 locomotives should be labeled ''ULTRA LOW SULFUR DIESEL FUEL ONLY''. You do not need to label Tier 3 and earlier locomotives certified for use with both LSD and ULSD.

(c) *Engine labels.* (1) For engines not requiring aftertreatment devices, apply engine labels meeting the specifications of paragraph (c)(2) of this section once an engine has been assembled in its certified configuration. For engines that require aftertreatment devices, apply the label after the engine has been fully assembled, which may occur before installing the aftertreatment devices. These labels must be applied by:

(i) The manufacturer at the point of original manufacture; and

(ii) The remanufacturer at the point of each remanufacture (including the original remanufacture and subsequent remanufactures).

(2) The engine label must meet all of the following criteria:

(i) The label must be durable throughout the useful life of the engine, be legible and affixed to the engine in a position in which it will be readily visible after installation of the engine in the locomotive. Attach it to an engine part necessary for normal operation and not normally requiring replacement during the useful life of the locomotive. You may not attach this label to any equipment that is easily detached from the engine. Attach the label so it cannot be removed without destroying or defacing the label. The label may be made up of more than one piece, as long as all pieces are permanently attached to the same engine part.

(ii) The label must be lettered in the English language using a color that contrasts with the background of the label.

(iii) The label must include all the following information:

(A) The label heading: ''ENGINE EMISSION CONTROL INFORMATION.'' Manufacturers/remanufacturers may add a subheading to distinguish this label from the locomotive label described in paragraph (b) of this section.

(B) Full corporate name and trademark of the manufacturer/remanufacturer.

(C) Engine family and configuration identification as specified in the certificate under which the locomotive is being manufactured or remanufactured.

(D) A prominent unconditional statement of compliance with U.S. Environmental Protection Agency regulations which apply to locomotives, as applicable:

(*1*) ''This locomotive conforms to U.S. EPA regulations applicable to Tier 0+ switch locomotives.''

(*2*) ''This locomotive conforms to U.S. EPA regulations applicable to Tier 0+ line-haul locomotives.''

(*3*) ''This locomotive conforms to U.S. EPA regulations applicable to Tier 1+ locomotives.''

(*4*) ''This locomotive conforms to U.S. EPA regulations applicable to Tier 2+ locomotives.''

(*5*) ''This locomotive conforms to U.S. EPA regulations applicable to Tier 3 switch locomotives.''

(*6*) ''This locomotive conforms to U.S. EPA regulations applicable to Tier 3 line-haul locomotives.''

(*7*) ''This locomotive conforms to U.S. EPA regulations applicable to Tier 4 switch locomotives.''

(*8*) ''This locomotive conforms to U.S. EPA regulations applicable to Tier 4 line-haul locomotives.''

(E) The useful life of the locomotive.

(F) The standards/FELS to which the locomotive was certified.

(iv) You may include other critical operating instructions such as specifications for adjustments or reductant use for SCR systems.

(d) You may add information to the emission control information label as follows:

(1) You may identify other emission standards that the engine/locomotive meets or does not meet (such as international standards). You may include this information by adding it to the statement we specify or by including a separate statement.

(2) You may add other information to ensure that the locomotive will be properly maintained and used.

(3) You may add appropriate features to prevent counterfeit labels. For example, you may include the engine's unique identification number on the label.

(e) You may ask us to approve modified labeling requirements in this part 1033 if you show that it is necessary or appropriate. We will approve your request if your alternate label is consistent with the requirements of this part.

**§ 1033.140 Rated power.**

This section describes how to determine the rated power of a locomotive for the purposes of this part.

(a) A locomotive configuration's rated power is the maximum brake power point on the nominal power curve for the locomotive configuration, as defined in this section. See § 1033.901 for the definition of brake power. Round the power value to the nearest whole horsepower. Generally, this will be the brake power of the engine in notch 8.

(b) The nominal power curve of a locomotive configuration is its maximum available brake power at each possible operator demand setpoint or ''notch''. See 40 CFR 1065.1001 for the definition of operator demand. The maximum available power at each operator demand setpoint is based on

your design and production specifications for that locomotive. The nominal power curve does not include any operator demand setpoints that are not achievable during in-use operation. For example, for a locomotive with only eight discrete operator demand setpoints, or notches, the nominal power curve would be a series of eight power points versus notch, rather than a continuous curve.

(c) The nominal power curve must be within the range of the actual power curves of production locomotives considering normal production variability. If after production begins it is determined that your nominal power curve does not represent production locomotives, we may require you to amend your application for certification under § 1033.225.

(d) For the purpose of determining useful life, you may need to use a rated power based on power other than brake power according to the provisions of this paragraph (d). The useful life must be based on the power measured by the locomotive's megawatt-hour meter. For example, if your megawatt-hour meter reads and records the electrical work output of the alternator/generator rather than the brake power of the engine, and the power output of the alternator/generator at notch 8 is 4000 horsepower, calculate your useful life as 30,000 MW-hrs (7.5 × 4000).

**§ 1033.150 Interim provisions.**

The provisions of this section apply instead of other provisions of this part for a limited time. This section describes when these provisions apply.

(a) *Early availability of Tier 0, Tier 1, or Tier 2 systems.* Except as specified in paragraph (a)(2) of this section, for model years 2008 and 2009, you may remanufacture locomotives to meet the applicable standards in 40 CFR part 92 only if no remanufacture system has been certified to meet the standards of this part and is available at a reasonable cost at least 90 days prior to the completion of the remanufacture as specified in paragraph (a)(3) of this section. This same provision continues to apply after 2009, but only for Tier 2 locomotives. Note that remanufacturers may certify remanufacturing systems that will not be available at a reasonable cost; however such certification does not trigger the requirements of this paragraph (a).

(1) For the purpose of this paragraph (a), ''available at a reasonable cost'' means available for use where all of the following are true:

(i) The total incremental cost to the owner and operators of the locomotive due to meeting the new standards (including initial hardware, increased fuel consumption, and increased maintenance costs) during the useful life of the locomotive is less than $250,000, adjusted as specified in paragraph (a)(4)(i) of this section.

(ii) The initial incremental hardware costs are reasonably related to the technology included in the remanufacturing system and are less than $125,000, adjusted as specified in paragraph (a)(4)(i) of this section.

(iii) The remanufactured locomotive will have reliability throughout its useful life that is similar to the reliability the locomotive would have had if it had been remanufactured without the certified remanufacture system.

(iv) The remanufacturer must demonstrate at the time of certification that the system meets the requirements of this paragraph (a)(1).

(v) The system does not generate or use emission credits.

(2) The number of locomotives that each railroad must remanufacture under this paragraph (a) is capped as follows:

(i) For the period October 3, 2008 to December 31, 2008, the maximum number of locomotives that a railroad must remanufacture under this paragraph (a) is 50 percent of the total number of the railroad's locomotives that are remanufactured during this period under this part or 40 CFR part 92. Include in the calculation both locomotives you own and locomotives you lease.

(ii) For the period January 1, 2009 to December 31, 2009, the maximum number of locomotives that a railroad must remanufacture under this paragraph (a) is 70 percent of the total number of the railroad's locomotives that are remanufactured during this period under this part or 40 CFR part 92. Include in the calculation both locomotives you own and locomotives you lease.

(3) Remanufacturers applying for certificates under this paragraph (a) are responsible to notify owner/operators (and other customers as applicable) that they have requested such certificates. The notification should occur at the same time that the remanufacturer submits its application, and should include a description of the remanufacturing system, price, expected incremental operating costs, and draft copies of your installation and maintenance instructions. The system is considered to be available for a customer 120 days after this notification, or 90 days after the certificate is issued, whichever is later. Where we issue a certificate of conformity under this part based on carryover data from an engine family that we previously considered available for the configuration, the system is considered to be available when we issue the certificate.

(4) Estimate costs as described in this paragraph (a)(4).

(i) The cost limits described in paragraph (a)(1) of this section are specified in terms of 2007 dollars. Adjust these values for future years according to the following equation:

$$\text{Actual Limit} = (\text{2007 Limit}) \times [\,(0.6000)\times(\text{Commodity Index}) + (0.4000)\times(\text{Earnings Index})\,]$$

Where:

2007 Limit = The value specified in paragraph (a)(1) of this section ($250,000 or $125,000).

Commodity Index = The U.S. Bureau of Labor Statistics Producer Price Index for Industrial Commodities Less Fuel (Series WPU03T15M05) for the month prior to the date you submit your application divided by 173.1.

Earnings Index = The U.S. Bureau of Labor Statistics Estimated Average Hourly Earnings of Production Workers for Durable Manufacturing (Series CES3100000008) for the month prior to the date you submit your application divided by 18.26.

(ii) Calculate all costs in current dollars (for the month prior to the date you submit your application). Calculate fuel costs based on a fuel price adjusted by the Association of American Railroads' monthly railroad fuel price index (P), which is available at *https://www.aar.org/PubCommon/Documents/AboutTheIndustry/Index_MonthlyFuelPrices.pdf*. (Use the value for the column in which P equals 539.8 for November 2007.) Calculate a new fuel price using the following equation:

$$\text{Fuel Price} = (\$2.76 \text{ per gallon}) \times (P/539.8)$$

(b) *Idle controls.* A locomotive equipped with an automatic engine stop/start system that was originally installed before January 1, 2008 and that conforms to the requirements of § 1033.115(g) is deemed to be covered by a certificate of conformity with respect to the requirements of § 1033.115(g). Note that the provisions of subpart C of this part also allow you to apply for a conventional certificate of conformity for such systems.

(c) *Locomotive labels for transition to new standards.* This paragraph (c) applies when you remanufacture a locomotive that was previously certified under 40 CFR part 92. You must remove the old locomotive label and replace it with the locomotive label specified in § 1033.135.

(d) *Small manufacturer/remanufacturer provisions.* The

production-line testing requirements and in-use testing requirements of this part do not apply until January 1, 2013 for manufacturers/remanufacturers that qualify as small manufacturers under § 1033.901.

(e) *Producing switch locomotives using certified nonroad engines.* You may use the provisions of this paragraph (e) to produce any number of freshly manufactured or refurbished switch locomotives in model years 2008 through 2017. Locomotives produced under this paragraph (e) are exempt from the standards and requirements of this part and 40 CFR part 92 subject to the following provisions:

(1) All of the engines on the switch locomotive must be covered by a certificate of conformity issued under 40 CFR part 89 or 1039 for model year 2008 or later. Engines over 750 hp certified to the Tier 4 standards for non-generator set engines are not eligible for this allowance after 2014.

(2) You must reasonably project that more of the engines will be sold and used for non-locomotive use than for use in locomotives.

(3) You may not generate or use locomotive credits under this part for these locomotives.

(4) Include the following statement on a permanent locomotive label: ''THIS LOCOMOTIVE WAS CERTIFIED UNDER 40 CFR 1033.150(e). THE ENGINES USED IN THIS LOCOMOTIVE ARE SUBJECT TO REQUIREMENTS OF 40 CFR PARTS 1039 (or 89) AND 1068.''

(5) The rebuilding requirements of 40 CFR part 1068 apply when remanufacturing engines used in these locomotives.

(f) *In-use compliance limits.* For purposes of determining compliance other than for certification or production-line testing, calculate the applicable in-use compliance limits by adjusting the applicable standards/FELs. The PM adjustment applies only for model year 2017 and earlier locomotives and does not apply for locomotives with a PM FEL higher than 0.03 g/bhp-hr. The $NO_X$ adjustment applies only for model year 2017 and earlier locomotives and does not apply for locomotives with a $NO_X$ FEL higher than 2.0 g/bhp-hr. Add the applicable adjustments in Tables 1 or 2 of this section (which follow) to the otherwise applicable standards (or FELs) and notch caps. You must specify during certification which add-ons, if any, will apply for your locomotives.

TABLE 1 TO § 1033.150.—IN-USE ADJUSTMENTS FOR TIER 4 LOCOMOTIVES

| Fraction of useful life already used | In-use adjustments (g/bhp-hr) | |
|---|---|---|
| | For model year 2017 and earlier Tier 4 $NO_X$ standards | For model year 2017 and earlier Tier 4 PM standards |
| 0 < MW-hrs ≤ 50% of UL | 0.7 | 0.01 |
| 50 < MW-hrs > 75% of UL | 1.0 | 0.01 |
| MW-hrs > 75% of UL | 1.3 | 0.01 |

TABLE 2 TO § 1033.150.—OPTIONAL IN-USE ADJUSTMENTS FOR TIER 4 LOCOMOTIVES

| Fraction of useful life already used | In-use adjustments (g/bhp-hr) | |
|---|---|---|
| | For model year 2017 and earlier Tier 4 $NO_X$ standards | For model year 2017 and earlier Tier 4 PM standards |
| 0 < MW-hrs ≤ 50% of UL | 0.2 | 0.03 |
| 50 < MW-hrs ≤ 75% of UL | 0.3 | 0.03 |
| MW-hrs > 75% of UL | 0.4 | 0.03 |

(g) Optional interim Tier 4 compliance provisions for $NO_X$ emissions. For model years 2015 through 2022, manufacturers may choose to certify some or all of their Tier 4 line-haul engine families according to the optional compliance provisions of this paragraph (g). The following provisions apply to all locomotives in those families:

(1) The provisions of this paragraph (g) apply instead of the deterioration factor requirements of §§ 1033.240 and 1033.245 for $NO_X$ emissions. You must certify that the locomotives in the engine family will conform to the requirements of this paragraph (g) for their full useful lives.

(2) The applicable $NO_X$ emission standard for locomotives certified under this paragraph (g) is:

(i) 1.3 g/bhp-hr for locomotives that have accumulated less than 50 hours of operation.

(ii) 1.3 plus 0.6 g/bhp-hr for locomotives that have accumulated 50 hours or more of operation.

(3) The engine family may not generate $NO_X$ emission credits.

(4) The design certification provisions of § 1033.240(c) do not apply for these locomotives for the next remanufacture.

(5) Manufacturers must comply with the production-line testing program in subpart D of this part for these engine families or the following optional program:

(i) You are not required to test locomotives in the family under subpart D of this part if you comply with the requirements of this paragraph (g)(5).

(ii) Test the locomotives as specified in subpart E of this part, with the following exceptions:

(A) The minimum test sample size is one percent of the number of locomotives in the family or five, whichever is less.

(B) The locomotives must be tested after they have accumulated 50 hours or more of operation but before they have reached 50 percent of their useful life.

(iii) The standards in this part for pollutants other than $NO_X$ apply as specified for testing conducted under this optional program.

(6) The engine family may use $NO_X$ emission credits to comply with this paragraph (g). However, a 1.5 g/bhp-hr $NO_X$ FEL cap applies for engine families certified under this paragraph (g). The applicable standard for locomotives that

have accumulated 50 hours or more of operation is the FEL plus 0.6 g/bhp-hr.

(7) The in-use $NO_X$ add-ons specified in paragraph (f) of this section do not apply for these locomotives.

(8) All other provisions of this part apply to such locomotives, except as specified otherwise in this paragraph (g).

(h) *Test procedures.* You are generally required to use the test procedures specified in subpart F of this part (including the applicable test procedures in 40 CFR part 1065). As specified in this paragraph (h), you may use a combination of the test procedures specified in this part and the test procedures specified in 40 CFR part 92 prior to January 1, 2015. After this date, you must use only the test procedures specified in this part.

(1) Prior to January 1, 2015, you may ask to use some or all of the procedures specified in 40 CFR part 92 for locomotives certified under this part 1033.

(2) If you ask to rely on a combination of procedures under this paragraph (h), we will approve your request only if you show us that it does not affect your ability to demonstrate compliance with the applicable emission standards. Generally this requires that the combined procedures would result in emission measurements at least as high as those that would be measured using the procedures specified in this part. Alternatively, you may demonstrate that the combined effects of the different procedures is small relative to your compliance margin (the degree to which your emissions are below the applicable standards).

(i) *Certification testing.* Prior to model year 2014, you may use the simplified steady-state engine test procedure specified in this paragraph (i) for certification testing. The normal certification procedures and engine testing procedures apply, except as specified in this paragraph (i).

(1) Use good engineering judgment to operate the engine consistent with its expected operation in the locomotive, to the extent practical. You are not required to exactly replicate the transient behavior of the engine.

(2) You may delay sampling during notch transition for up to 20 seconds after you begin the notch change.

(3) We may require you provide additional information in your application for certification to support the expectation that production locomotives will meet all applicable emission standards when tested as locomotives.

(4) You may not use this simplified procedure for production-line or in-use testing.

(j) *Administrative requirements.* For model years 2008 and 2009, you may use a combination of the administrative procedures specified in this part and the test procedures specified in 40 CFR part 92. For example, this would allow you to use the certification procedures of 40 CFR part 92 to apply for certificates under this part 1033.

(k) *Test fuels.* Testing performed during calendar years 2008 and 2009 may be performed using test fuels that meet the specifications of 40 CFR 92.113. If you do, adjust PM emissions downward by 0.04 g/bhp-hr to account for the difference in sulfur content of the fuel.

(1) *Refurbished switch locomotives.* In 2008 and 2009 remanufactured Tier 0 switch locomotives that are deemed to be refurbished may be certified as remanufactured switch locomotives under 40 CFR part 92.

## Subpart C—Certifying Engine Families

### § 1033.201 General requirements for obtaining a certificate of conformity.

Certification is the process by which you demonstrate to us that your freshly manufactured or remanufactured locomotives will meet the applicable emission standards throughout their useful lives (explaining to us how you plan to manufacture or remanufacture locomotives, and providing test data showing that such locomotives will comply with all applicable emission standards). Anyone meeting the definition of manufacturer in § 1033.901 may apply for a certificate of conformity for freshly manufactured locomotives. Anyone meeting the definition of remanufacturer in § 1033.901 may apply for a certificate of conformity for remanufactured locomotives.

(a) You must send us a separate application for a certificate of conformity for each engine family. A certificate of conformity is valid starting with the indicated effective date, but it is not valid for any production after December 31 of the model year for which it is issued. No certificate will be issued after December 31 of the model year.

(b) The application must contain all the information required by this part and must not include false or incomplete statements or information (see § 1033.255).

(c) We may ask you to include less information than we specify in this subpart, as long as you maintain all the information required by § 1033.250.

(d) You must use good engineering judgment for all decisions related to your application (see 40 CFR 1068.5).

(e) An authorized representative of your company must approve and sign the application.

(f) See § 1033.255 for provisions describing how we will process your application.

(g) We may require you to deliver your test locomotives to a facility we designate for our testing (see § 1033.235(c)).

(h) By applying for a certificate of conformity, you are accepting responsibility for the in-use emission performance of all properly maintained and used locomotives covered by your certificate. This responsibility applies without regard to whether you physically manufacture or remanufacture the entire locomotive. If you do not physically manufacture or remanufacture the entire locomotive, you must take reasonable steps (including those specified by this part) to ensure that the locomotives produced under your certificate conform to the specifications of your application for certification. Note that this paragraph does not limit any liability under this part or the Clean Air Act for entities that do not obtain certificates. This paragraph also does not prohibit you from making contractual arrangements with noncertifiers related to recovering damages for noncompliance.

(i) The provisions of this subpart describe how to obtain a certificate that covers all standards and requirements. Manufacturer/remanufacturers may ask to obtain a certificate of conformity that does not cover the idle control requirements of § 1033.115 or one that only covers the idle control requirements of § 1033.115. Remanufacturers obtaining such partial certificates must include a statement in their installation instructions that two certificates and labels are required for a locomotive to be in a fully certified configuration. We may modify the certification requirements for certificates that will only cover idle control systems.

### § 1033.205 Applying for a certificate of conformity.

(a) Send the Designated Compliance Officer a complete application for each engine family for which you are requesting a certificate of conformity.

(b) The application must be approved and signed by the authorized representative of your company.

(c) You must update and correct your application to accurately reflect your production, as described in § 1033.225.

(d) Include the following information in your application:

(1) A description of the basic engine design including, but not limited to, the engine family specifications listed in § 1033.230. For freshly manufactured locomotives, a description of the basic locomotive design. For remanufactured locomotives, a description of the basic locomotive designs to which the remanufacture system will be applied. Include in your description, a list of distinguishable configurations to be included in the engine family. Note whether you are requesting a certificate that will or will not cover idle controls.

(2) An explanation of how the emission control system operates, including detailed descriptions of:

(i) All emission control system components.

(ii) Injection or ignition timing for each notch (i.e., degrees before or after top-dead-center), and any functional dependence of such timing on other operational parameters (e.g., engine coolant temperature).

(iii) Each auxiliary emission control device (AECD).

(iv) All fuel system components to be installed on any production or test locomotives.

(v) Diagnostics.

(3) A description of the test locomotive.

(4) A description of the test equipment and fuel used. Identify any special or alternate test procedures you used.

(5) A description of the operating cycle and the period of operation necessary to accumulate service hours on the test locomotive and stabilize emission levels. You may also include a Green Engine Factor that would adjust emissions from zero-hour engines to be equivalent to stabilized engines.

(6) A description of all adjustable operating parameters (including, but not limited to, injection timing and fuel rate), including the following:

(i) The nominal or recommended setting and the associated production tolerances.

(ii) The intended adjustable range, and the physically adjustable range.

(iii) The limits or stops used to limit adjustable ranges.

(iv) Production tolerances of the limits or stops used to establish each physically adjustable range.

(v) Information relating to why the physical limits or stops used to establish the physically adjustable range of each parameter, or any other means used to inhibit adjustment, are the most effective means possible of preventing adjustment of parameters to settings outside your specified adjustable ranges on in-use engines.

(7) Projected U.S. production information for each configuration. If you are projecting substantially different sales of a configuration than you had previously, we may require you to explain why you are projecting the change.

(8) All test data you obtained for each test engine or locomotive. As described in § 1033.235, we may allow you to demonstrate compliance based on results from previous emission tests, development tests, or other testing information. Include data for $NO_X$, PM, HC, CO, and $CO_2$.

(9) The intended deterioration factors for the engine family, in accordance with § 1033.245. If the deterioration factors for the engine family were developed using procedures that we have not previously approved, you should request preliminary approval under § 1033.210.

(10) The intended useful life period for the engine family, in accordance with § 1033.101(g). If the useful life for the engine family was determined using procedures that we have not previously approved, you should request preliminary approval under § 1033.210.

(11) Copies of your proposed emission control label(s), maintenance instructions, and installation instructions (where applicable).

(12) An unconditional statement declaring that all locomotives included in the engine family comply with all requirements of this part and the Clean Air Act.

(e) If we request it, you must supply such additional information as may be required to evaluate the application.

(f) Provide the information to read, record, and interpret all the information broadcast by a locomotive's onboard computers and electronic control units. State that, upon request, you will give us any hardware, software, or tools we would need to do this. You may reference any appropriate publicly released standards that define conventions for these messages and parameters. Format your information consistent with publicly released standards.

(g) Include the information required by other subparts of this part. For example, include the information required by § 1033.725 if you participate in the ABT program.

(h) Include other applicable information, such as information specified in this part or part 1068 of this chapter related to requests for exemptions.

(i) Name an agent for service located in the United States. Service on this agent constitutes service on you or any of your officers or employees for any action by EPA or otherwise by the United States related to the requirements of this part.

(j) For imported locomotives, we may require you to describe your expected importation process.

### § 1033.210 Preliminary approval.

(a) If you send us information before you finish the application, we will review it and make any appropriate determinations for questions related to engine family definitions, auxiliary emission-control devices, deterioration factors, testing for service accumulation, maintenance, and useful lives.

(b) Decisions made under this section are considered to be preliminary approval, subject to final review and approval. We will generally not reverse a decision where we have given you preliminary approval, unless we find new information supporting a different decision.

(c) If you request preliminary approval related to the upcoming model year or the model year after that, we will make best-efforts to make the appropriate determinations as soon as practicable. We will generally not provide preliminary approval related to a future model year more than three years ahead of time.

(d) You must obtain preliminary approval for your plan to develop deterioration factors prior to the start of any service accumulation to be used to develop the factors.

### § 1033.220 Amending maintenance instructions.

You may amend your emission-related maintenance instructions after you submit your application for certification, as long as the amended instructions remain consistent with the provisions of § 1033.125. You must send the Designated Compliance Officer a request to amend your application for certification for an engine family if you want to change the emission-related maintenance instructions in a way that could affect emissions. In your request, describe the proposed changes to the maintenance instructions. We will approve your request if we determine that the amended instructions are consistent with maintenance you performed on emission-data engines such that your durability demonstration would remain valid. If owners/operators follow the original maintenance instructions rather than the newly specified maintenance, this does not allow you to disqualify those locomotives from in-use testing or deny a warranty claim.

(a) If you are decreasing, replacing, or eliminating any of the specified

maintenance, you may distribute the new maintenance instructions to your customers 30 days after we receive your request, unless we disapprove your request. This would generally include replacing one maintenance step with another. We may approve a shorter time or waive this requirement.

(b) If your requested change would not decrease the specified maintenance, you may distribute the new maintenance instructions anytime after you send your request. For example, this paragraph (b) would cover adding instructions to increase the frequency of filter changes for locomotives in severe-duty applications.

(c) You do not need to request approval if you are making only minor corrections (such as correcting typographical mistakes), clarifying your maintenance instructions, or changing instructions for maintenance unrelated to emission control. We may ask you to send us copies of maintenance instructions revised under this paragraph (c).

**§ 1033.225 Amending applications for certification.**

Before we issue you a certificate of conformity, you may amend your application to include new or modified locomotive configurations, subject to the provisions of this section. After we have issued your certificate of conformity, you may send us an amended application requesting that we include new or modified locomotive configurations within the scope of the certificate, subject to the provisions of this section. You must also amend your application if any changes occur with respect to any information included in your application. For example, you must amend your application if you determine that your actual production variation for an adjustable parameter exceeds the tolerances specified in your application.

(a) You must amend your application before you take either of the following actions:

(1) Add a locomotive configuration to an engine family. In this case, the locomotive added must be consistent with other locomotives in the engine family with respect to the criteria listed in § 1033.230. For example, you must amend your application if you want to produce 12-cylinder versions of the 16-cylinder locomotives you described in your application.

(2) Change a locomotive already included in an engine family in a way that may affect emissions, or change any of the components you described in your application for certification. This includes production and design changes that may affect emissions any time during the locomotive's lifetime. For example, you must amend your application if you want to change a part supplier if the part was described in your original application and is different in any material respect than the part you described.

(3) Modify an FEL for an engine family as described in paragraph (f) of this section.

(b) To amend your application for certification, send the Designated Compliance Officer the following information:

(1) Describe in detail the addition or change in the locomotive model or configuration you intend to make.

(2) Include engineering evaluations or data showing that the amended engine family complies with all applicable requirements. You may do this by showing that the original emission-data locomotive is still appropriate with respect to showing compliance of the amended family with all applicable requirements.

(3) If the original emission-data locomotive for the engine family is not appropriate to show compliance for the new or modified locomotive, include new test data showing that the new or modified locomotive meets the requirements of this part.

(c) We may ask for more test data or engineering evaluations. You must give us these within 30 days after we request them.

(d) For engine families already covered by a certificate of conformity, we will determine whether the existing certificate of conformity covers your new or modified locomotive. You may ask for a hearing if we deny your request (see § 1033.920).

(e) For engine families already covered by a certificate of conformity, you may start producing the new or modified locomotive anytime after you send us your amended application, before we make a decision under paragraph (d) of this section. However, if we determine that the affected locomotives do not meet applicable requirements, we will notify you to cease production of the locomotives and may require you to recall the locomotives at no expense to the owner. Choosing to produce locomotives under this paragraph (e) is deemed to be consent to recall all locomotives that we determine do not meet applicable emission standards or other requirements and to remedy the nonconformity at no expense to the owner. If you do not provide information required under paragraph (c) of this section within 30 days, you must stop producing the new or modified locomotives.

(f) You may ask us to approve a change to your FEL in certain cases after the start of production. The changed FEL may not apply to locomotives you have already introduced into U.S. commerce, except as described in this paragraph (f). If we approve a changed FEL after the start of production, you must include the new FEL on the emission control information label for all locomotives produced after the change. You may ask us to approve a change to your FEL in the following cases:

(1) You may ask to raise your FEL for your engine family at any time. In your request, you must show that you will still be able to meet the emission standards as specified in subparts B and H of this part. If you amend your application by submitting new test data to include a newly added or modified locomotive, as described in paragraph (b)(3) of this section, use the appropriate FELs with corresponding production volumes to calculate your production-weighted average FEL for the model year, as described in subpart H of this part. If you amend your application without submitting new test data, you must use the higher FEL for the entire family to calculate your production-weighted average FEL under subpart H of this part.

(2) You may ask to lower the FEL for your emission family only if you have test data from production locomotives showing that emissions are below the proposed lower FEL. The lower FEL applies only to engines or fuel-system components you produce after we approve the new FEL. Use the appropriate FELs with corresponding production volumes to calculate your production-weighted average FEL for the model year, as described in subpart H of this part.

**§ 1033.230 Grouping locomotives into engine families.**

(a) Divide your product line into engine families of locomotives that are expected to have similar emission characteristics throughout the useful life. Your engine family is limited to a single model year. Freshly manufactured locomotives may not be included in the same engine family as remanufactured locomotives, except as allowed by paragraph (f) of this section. Paragraphs (b) and (c) of this section specify default criteria for dividing locomotives into engine families. Paragraphs (d) and (e) of this section allow you deviate from these defaults in certain circumstances.

(b) This paragraph (b) applies for all locomotives other than Tier 0 locomotives. Group locomotives in the same engine family if they are the same in all the following aspects:

(1) The combustion cycle (e.g., diesel cycle).

(2) The type of engine cooling employed and procedure(s) employed to maintain engine temperature within desired limits (thermostat, on-off radiator fan(s), radiator shutters, etc.).

(3) The nominal bore and stroke dimensions.

(4) The approximate intake and exhaust event timing and duration (valve or port).

(5) The location of the intake and exhaust valves (or ports).

(6) The size of the intake and exhaust valves (or ports).

(7) The overall injection or ignition timing characteristics (i.e., the deviation of the timing curves from the optimal fuel economy timing curve must be similar in degree).

(8) The combustion chamber configuration and the surface-to-volume ratio of the combustion chamber when the piston is at top dead center position, using nominal combustion chamber dimensions.

(9) The location of the piston rings on the piston.

(10) The method of air aspiration (turbocharged, supercharged, naturally aspirated, Roots blown).

(11) The general performance characteristics of the turbocharger or supercharger (e.g., approximate boost pressure, approximate response time, approximate size relative to engine displacement).

(12) The type of air inlet cooler (air-to-air, air-to-liquid, approximate degree to which inlet air is cooled).

(13) The intake manifold induction port size and configuration.

(14) The type of fuel and fuel system configuration.

(15) The configuration of the fuel injectors and approximate injection pressure.

(16) The type of fuel injection system controls (i.e., mechanical or electronic).

(17) The type of smoke control system.

(18) The exhaust manifold port size and configuration.

(19) The type of exhaust aftertreatment system (oxidation catalyst, particulate trap), and characteristics of the aftertreatment system (catalyst loading, converter size vs. engine size).

(c) Group Tier 0 locomotives in the same engine family if they are the same in all the following aspects:

(1) The combustion cycle (e.g., diesel cycle).

(2) The type of engine cooling employed and procedure(s) employed to maintain engine temperature within desired limits (thermostat, on-off radiator fan(s), radiator shutters, etc.).

(3) The approximate bore and stroke dimensions.

(4) The approximate location of the intake and exhaust valves (or ports).

(5) The combustion chamber general configuration and the approximate surface-to-volume ratio of the combustion chamber when the piston is at top dead center position, using nominal combustion chamber dimensions.

(6) The method of air aspiration (turbocharged, supercharged, naturally aspirated, Roots blown).

(7) The type of air inlet cooler (air-to-air, air-to-liquid, approximate degree to which inlet air is cooled).

(8) The type of fuel and general fuel system configuration.

(9) The general configuration of the fuel injectors and approximate injection pressure.

(10) The type of fuel injection system control (electronic or mechanical).

(d) You may subdivide a group of locomotives that is identical under paragraph (b) or (c) of this section into different engine families if you show the expected emission characteristics are different during the useful life. This allowance also covers locomotives for which only calculated emission rates differ, such as locomotives with and without energy-saving design features. For the purposes of determining whether an engine family is a small engine family in § 1033.405(a)(2), we will consider the number of locomotives that could have been classed together under paragraph (b) or (c) of this section, instead of the number of locomotives that are included in a subdivision allowed by this paragraph (d).

(e) In unusual circumstances, you may group locomotives that are not identical with respect to the things listed in paragraph (b) or (c) of this section in the same engine family if you show that their emission characteristics during the useful life will be similar.

(f) During the first six calendar years after a new tier of standards become applicable, remanufactured engines/locomotives may be included in the same engine family as freshly manufactured locomotives, provided the same engines and emission controls are used for locomotive models included in the engine family.

### § 1033.235 Emission testing required for certification.

This section describes the emission testing you must perform to show compliance with the emission standards in § 1033.101.

(a) Select an emission-data locomotive (or engine) from each engine family for testing. It may be a low mileage locomotive, or a development engine (that is equivalent in design to the engines of the locomotives being certified), or another low hour engine. Use good engineering judgment to select the locomotive configuration that is most likely to exceed (or have emissions nearest to) an applicable emission standard or FEL. In making this selection, consider all factors expected to affect emission control performance and compliance with the standards, including emission levels of all exhaust constituents, especially $NO_X$ and PM.

(b) Test your emission-data locomotives using the procedures and equipment specified in subpart F of this part.

(c) We may measure emissions from any of your test locomotives or other locomotives from the engine family.

(1) We may decide to do the testing at your plant or any other facility. If we do this, you must deliver the test locomotive to a test facility we designate. If we do the testing at your plant, you must schedule it as soon as possible and make available the instruments, personnel, and equipment we need.

(2) If we measure emissions from one of your test locomotives, the results of that testing become the official emission results for the locomotive. Unless we later invalidate these data, we may decide not to consider your data in determining if your engine family meets applicable requirements.

(3) Before we test one of your locomotives, we may set its adjustable parameters to any point within the adjustable ranges (see § 1033.115(b)).

(4) Before we test one of your locomotives, we may calibrate it within normal production tolerances for anything we do not consider an adjustable parameter.

(d) You may ask to use emission data from a previous model year instead of doing new tests if all the following are true:

(1) The engine family from the previous model year differs from the current engine family only with respect to model year, or other factors not related to emissions. You may include additional configurations subject to the provisions of § 1033.225.

(2) The emission-data locomotive from the previous model year remains the appropriate emission-data locomotive under paragraph (b) of this section.

(3) The data show that the emission-data locomotive would meet all the requirements that apply to the engine family covered by the application for certification.

(e) You may ask to use emission data from a different engine family you have already certified instead of testing a locomotive in the second engine family if all the following are true:

(1) The same engine is used in both engine families.

(2) You demonstrate to us that the differences in the two families are sufficiently small that the locomotives in the untested family will meet the same applicable notch standards calculated from the test data.

(f) We may require you to test a second locomotive of the same or different configuration in addition to the locomotive tested under paragraph (b) of this section.

(g) If you use an alternate test procedure under 40 CFR 1065.10 and later testing shows that such testing does not produce results that are equivalent to the procedures specified in subpart F of this part, we may reject data you generated using the alternate procedure.

(h) The requirement to measure smoke emissions is waived for certification and production line testing, except where there is reason to believe your locomotives do not meet the applicable smoke standards.

**§ 1033.240 Demonstrating compliance with exhaust emission standards.**

(a) For purposes of certification, your engine family is considered in compliance with the applicable numerical emission standards in § 1033.101 if all emission-data locomotives representing that family have test results showing deteriorated emission levels at or below these standards.

(1) If you include your locomotive in the ABT program in subpart H of this part, your FELs are considered to be the applicable emission standards with which you must comply.

(2) If you do not include your remanufactured locomotive in the ABT program in subpart H of this part, but it was previously included in the ABT program in subpart H of this part, the previous FELs are considered to be the applicable emission standards with which you must comply.

(b) Your engine family is deemed not to comply if any emission-data locomotive representing that family has test results showing a deteriorated emission level above an applicable FEL or emission standard from § 1033.101 for any pollutant. Use the following steps to determine the deteriorated emission level for the test locomotive:

(1) Collect emission data using measurements with enough significant figures to calculate the cycle-weighted emission rate to at least one more decimal place than the applicable standard. Apply any applicable humidity corrections before weighting emissions.

(2) Apply the regeneration factors if applicable. At this point the emission rate is generally considered to be an official emission result.

(3) Apply the deterioration factor to the official emission result, as described in § 1033.245, then round the adjusted figure to the same number of decimal places as the emission standard. This adjusted value is the deteriorated emission level. Compare these emission levels from the emission-data locomotive with the applicable emission standards. In the case of $NO_X$+NMHC standards, apply the deterioration factor to each pollutant and then add the results before rounding.

(4) The highest deteriorated emission levels for each pollutant are considered to be the certified emission levels.

(c) An owner/operator remanufacturing its locomotives to be identical to their previously certified configuration may certify by design without new emission test data. To do this, submit the application for certification described in § 1033.205, but instead of including test data, include a description of how you will ensure that your locomotives will be identical in all material respects to their previously certified condition. You may use reconditioned parts consistent with good engineering judgment. You have all of the liabilities and responsibilities of the certificate holder for locomotives you certify under this paragraph.

**§ 1033.245 Deterioration factors.**

Establish deterioration factors for each pollutant to determine, as described in § 1033.240, whether your locomotives will meet emission standards for each pollutant throughout the useful life. Determine deterioration factors as described in this section, either with an engineering analysis, with pre-existing test data, or with new emission measurements. The deterioration factors are intended to reflect the deterioration expected to result during the useful life of a locomotive maintained as specified in § 1033.125. If you perform durability testing, the maintenance that you may perform on your emission-data locomotive is limited to the maintenance described in § 1033.125.

(a) Your deterioration factors must take into account any available data from in-use testing with similar locomotives, consistent with good engineering judgment. For example, it would not be consistent with good engineering judgment to use deterioration factors that predict emission increases over the useful life of a locomotive or locomotive engine that are significantly less than the emission increases over the useful life observed from in-use testing of similar locomotives.

(b) Deterioration factors may be additive or multiplicative.

(1) *Additive deterioration factor for exhaust emissions.* Except as specified in paragraph (b)(2) of this section, use an additive deterioration factor for exhaust emissions. An additive deterioration factor for a pollutant is the difference between exhaust emissions at the end of the useful life and exhaust emissions at the low-hour test point. In these cases, adjust the official emission results for each tested locomotive at the selected test point by adding the factor to the measured emissions. The deteriorated emission level is intended to represent the highest emission level during the useful life. Thus, if the factor is less than zero, use zero. Additive deterioration factors must be specified to one more decimal place than the applicable standard.

(2) *Multiplicative deterioration factor for exhaust emissions.* Use a multiplicative deterioration factor if good engineering judgment calls for the deterioration factor for a pollutant to be the ratio of exhaust emissions at the end of the useful life to exhaust emissions at the low-hour test point. For example, if you use aftertreatment technology that controls emissions of a pollutant proportionally to engine-out emissions, it is often appropriate to use a multiplicative deterioration factor. Adjust the official emission results for each tested locomotive at the selected test point by multiplying the measured emissions by the deterioration factor. The deteriorated emission level is intended to represent the highest emission level during the useful life. Thus, if the factor is less than one, use one. A multiplicative deterioration factor may not be appropriate in cases where testing variability is significantly greater than locomotive-to-locomotive variability. Multiplicative deterioration factors must be specified to one more significant figure than the applicable standard.

(c) Deterioration factors for smoke are always additive.

(d) If your locomotive vents crankcase emissions to the exhaust or to the atmosphere, you must account for crankcase emission deterioration, using

good engineering judgment. You may use separate deterioration factors for crankcase emissions of each pollutant (either multiplicative or additive) or include the effects in combined deterioration factors that include exhaust and crankcase emissions together for each pollutant.

(e) Include the following information in your application for certification:

(1) If you determine your deterioration factors based on test data from a different engine family, explain why this is appropriate and include all the emission measurements on which you base the deterioration factor.

(2) If you determine your deterioration factors based on engineering analysis, explain why this is appropriate and include a statement that all data, analyses, evaluations, and other information you used are available for our review upon request.

(3) If you do testing to determine deterioration factors, describe the form and extent of service accumulation, including a rationale for selecting the service-accumulation period and the method you use to accumulate hours.

### § 1033.250 Reporting and recordkeeping.

(a) Within 45 days after the end of the model year, send the Designated Compliance Officer a report describing the following information about locomotives you produced during the model year:

(1) Report the total number of locomotives you produced in each engine family by locomotive model and engine model.

(2) If you produced exempted locomotives, report the number of exempted locomotives you produced for each locomotive model and identify the buyer or shipping destination for each exempted locomotive. You do not need to report under this paragraph (a)(2) locomotives that were temporarily exempted, exported locomotives, locomotives exempted as manufacturer/remanufacturer-owned locomotives, or locomotives exempted as test locomotives.

(b) Organize and maintain the following records:

(1) A copy of all applications and any summary information you send us.

(2) Any of the information we specify in § 1033.205 that you were not required to include in your application.

(3) A detailed history of each emission-data locomotive. For each locomotive, describe all of the following:

(i) The emission-data locomotive's construction, including its origin and buildup, steps you took to ensure that it represents production locomotives, any components you built specially for it, and all the components you include in your application for certification.

(ii) How you accumulated locomotive operating hours (service accumulation), including the dates and the number of hours accumulated.

(iii) All maintenance, including modifications, parts changes, and other service, and the dates and reasons for the maintenance.

(iv) All your emission tests, including documentation on routine and standard tests, as specified in part 40 CFR part 1065, and the date and purpose of each test.

(v) All tests to diagnose locomotive or emission control performance, giving the date and time of each and the reasons for the test.

(vi) Any other significant events.

(4) If you test a development engine for certification, you may omit information otherwise required by paragraph (b)(3) of this section that is unrelated to emissions and emission-related components.

(5) Production figures for each engine family divided by assembly plant.

(6) Keep a list of locomotive identification numbers for all the locomotives you produce under each certificate of conformity.

(c) Keep data from routine emission tests (such as test cell temperatures and relative humidity readings) for one year after we issue the associated certificate of conformity. Keep all other information specified in paragraph (a) of this section for eight years after we issue your certificate.

(d) Store these records in any format and on any media, as long as you can promptly send us organized, written records in English if we ask for them. You must keep these records readily available. We may review them at any time.

(e) Send us copies of any locomotive maintenance instructions or explanations if we ask for them.

### § 1033.255 EPA decisions.

(a) If we determine your application is complete and shows that the engine family meets all the requirements of this part and the Clean Air Act, we will issue a certificate of conformity for your engine family for that model year. We may make the approval subject to additional conditions.

(b) We may deny your application for certification if we determine that your engine family fails to comply with emission standards or other requirements of this part or the Clean Air Act. Our decision may be based on a review of all information available to us. If we deny your application, we will explain why in writing.

(c) In addition, we may deny your application or suspend or revoke your certificate if you do any of the following:

(1) Refuse to comply with any testing or reporting requirements.

(2) Submit false or incomplete information (paragraph (e) of this section applies if this is fraudulent).

(3) Render inaccurate any test data.

(4) Deny us from completing authorized activities. This includes a failure to provide reasonable assistance.

(5) Produce locomotives for importation into the United States at a location where local law prohibits us from carrying out authorized activities.

(6) Fail to supply requested information or amend your application to include all locomotives being produced.

(7) Take any action that otherwise circumvents the intent of the Clean Air Act or this part.

(d) We may void your certificate if you do not keep the records we require or do not give us information when we ask for it.

(e) We may void your certificate if we find that you intentionally submitted false or incomplete information.

(f) If we deny your application or suspend, revoke, or void your certificate, you may ask for a hearing (see § 1033.920).

## Subpart D—Manufacturer and Remanufacturer Production Line Testing and Audit Programs

### § 1033.301 Applicability.

The requirements of this part apply to manufacturers/remanufacturers of locomotives certified under this part, with the following exceptions:

(a) The requirements of §§ 1033.310 1033.315, 1033.320, and 1033.330 apply only to manufacturers of freshly manufactured locomotives or locomotive engines (including those used for repowering). We may also apply these requirements to remanufacturers of any locomotives for which there is reason to believe production problems exist that could affect emission performance. When we make a determination that production problems may exist that could affect emission performance, we will notify the remanufacturer(s). The requirements of §§ 1033.310, 1033.315, 1033.320, and 1033.330 will apply as specified in the notice.

(b) The requirements of § 1033.335 apply only to remanufacturers.

(c) As specified in § 1033.1(d), we may apply the requirements of this subpart to manufacturers/remanufacturers that do not certify the

locomotives. However, unless we specify otherwise, the requirements of this subpart apply to manufacturers/remanufacturers that hold the certificates for the locomotives.

**§ 1033.305 General requirements.**

(a) Manufacturers (and remanufacturers, where applicable) are required to test production line locomotives using the test procedures specified in § 1033.315. While this subpart refers to locomotive testing, you may ask to test locomotive engines instead of testing locomotives.

(b) Remanufacturers are required to conduct audits according to the requirements of § 1033.335 to ensure that remanufactured locomotives comply with the requirements of this part.

(c) If you certify an engine family with carryover emission data, as described in § 1033.235, and these equivalent engine families consistently pass the production-line testing requirements over the preceding two-year period, you may ask for a reduced testing rate for further production-line testing for that family. If we reduce your testing rate, we may limit our approval to any number of model years. In determining whether to approve your request, we may consider the number of locomotives that have failed emission tests.

(d) You may ask to use an alternate program or measurement method for testing production-line engines. In your request, you must show us that the alternate program gives equal assurance that your engines meet the requirements of this part. We may waive some or all of this subpart's requirements if we approve your alternate program.

**§ 1033.310 Sample selection for testing.**

(a) At the start of each model year, begin randomly selecting locomotives from each engine family for production line testing at a rate of one percent. Make the selection of the test locomotive after it has been assembled. Perform the testing throughout the entire model year to the extent possible, unless we specify a different schedule for your tests. For example, we may require you to disproportionately select locomotives from the early part of a model year for a new locomotive model that has not been subject to PLT previously.

(1) The required sample size for an engine family (provided that no locomotive tested fails to meet applicable emission standards) is the lesser of five tests per model year or one percent of projected annual production, with a minimum sample size for an engine family of one test per model year. See paragraph (d) of this section to determine the required number of test locomotives if any locomotives fail to comply with any standards.

(2) You may elect to test additional locomotives. All additional locomotives must be tested in accordance with the applicable test procedures of this part.

(b) You must assemble the test locomotives using the same production process that will be used for locomotives to be introduced into commerce. You may ask us to allow special assembly procedures for catalyst-equipped locomotives.

(c) Unless we approve it, you may not use any quality control, testing, or assembly procedures that you do not use during the production and assembly of all other locomotives of that family. This applies for any test locomotive or any portion of a locomotive, including engines, parts, and subassemblies.

(d) If one or more locomotives fail a production line test, then you must test two additional locomotives from the next fifteen produced in that engine family for each locomotive that fails. These two additional locomotives do not count towards your minimum number of locomotives. For example, if you are required to test a minimum of four locomotives under paragraph (a) of this section and the second locomotive fails to comply with one or more standards, then you must test two additional locomotives from the next fifteen produced in that engine family. If both of those locomotives pass all standards, you are required to test two additional locomotives to complete the original minimum number of four. If they both pass, you are done with testing for that family for the year since you tested six locomotives (the four originally required plus the two additional locomotives).

**§ 1033.315 Test procedures.**

(a) *Test procedures.* Use the test procedures described in subpart F of this part, except as specified in this section.

(1) You may ask to use other test procedures. We will approve your request if we determine that it is not possible to perform satisfactory testing using the specified procedures. We may also approve alternate test procedures under § 1033.305(d).

(2) If you used test procedures other than those in subpart F of this part during certification for the engine family (other than alternate test procedures necessary for testing a development engine or a low hour engine instead of a low mileage locomotive), use the same test procedures for production line testing that you used in certification.

(b) *Modifying a test locomotive.* Once an engine is selected for testing, you may adjust, repair, maintain, or modify it or check its emissions only if one of the following is true:

(1) You document the need for doing so in your procedures for assembling and inspecting all your production engines and make the action routine for all the engines in the engine family.

(2) This subpart otherwise specifically allows your action.

(3) We approve your action in advance.

(c) *Adjustable parameters.* (1) Confirm that adjustable parameters are set to values or positions that are within the range recommended to the ultimate purchaser.

(2) We may require to be adjusted any adjustable parameter to any setting within the specified adjustable range of that parameter prior to the performance of any test.

(d) *Stabilizing emissions.* You may stabilize emissions from the locomotives to be tested through service accumulation by running the engine through a typical duty cycle. Emissions are considered stabilized after 300 hours of operation. You may accumulate fewer hours, consistent with good engineering judgment. You may establish a Green Engine Factor for each regulated pollutant for each engine family, instead of (or in combination with) accumulating actual operation, to be used in calculating emissions test results. You must obtain our approval prior to using a Green Engine Factor. For catalyst-equipped locomotives, you may operate the locomotive for up to 1000 hours (in revenue or other service) prior to testing.

(e) *Adjustment after shipment.* If a locomotive is shipped to a facility other than the production facility for production line testing, and an adjustment or repair is necessary because of such shipment, you may perform the necessary adjustment or repair only after the initial test of the locomotive, unless we determine that the test would be impossible to perform or would permanently damage the locomotive.

(f) *Malfunctions.* If a locomotive cannot complete the service accumulation or an emission test because of a malfunction, you may request that we authorize either the repair of that locomotive or its deletion from the test sequence.

(g) *Retesting.* If you determine that any production line emission test of a locomotive is invalid, you must retest it in accordance with the requirements of

this subpart. Report emission results from all tests to us, including test results you determined are invalid. You must also include a detailed explanation of the reasons for invalidating any test in the quarterly report required in § 1033.320(e). In the event a retest is performed, you may ask us within ten days of the end of the production quarter for permission to substitute the after-repair test results for the original test results. We will respond to the request within ten working days of our receipt of the request.

**§ 1033.320 Calculation and reporting of test results.**

(a) Calculate initial test results using the applicable test procedure specified in § 1033.315(a). Include applicable non-deterioration adjustments such as a Green Engine Factor or regeneration adjustment factor. Round the results to one more decimal place than the applicable emission standard.

(b) If you conduct multiple tests on any locomotives, calculate final test results by summing the initial test results derived in paragraph (a) of this section for each test locomotive, dividing by the number of tests conducted on the locomotive, and rounding to one more decimal place than the applicable emission standard. For catalyst-equipped locomotives, you may ask us to allow you to exclude an initial failed test if all of the following are true:

(1) The catalyst was in a green condition when tested initially.

(2) The locomotive met all emission standards when retested after degreening the catalyst.

(3) No additional emission-related maintenance or repair was performed between the initial failed test and the subsequent passing test.

(c) Calculate the final test results for each test locomotive by applying the appropriate deterioration factors, derived in the certification process for the engine family, to the final test results, and rounding to one more decimal place than the applicable emission standard.

(d) If, subsequent to an initial failure of a production line test, the average of the test results for the failed locomotive and the two additional locomotives tested, is greater than any applicable emission standard or FEL, the engine family is deemed to be in non-compliance with applicable emission standards, and you must notify us within ten working days of such noncompliance.

(e) Within 45 calendar days of the end of each quarter, you must send to the Designated Compliance Officer a report with the following information:

(1) The location and description of the emission test facilities which you used to conduct your testing.

(2) Total production and sample size for each engine family tested.

(3) The applicable standards against which each engine family was tested.

(4) For each test conducted, include all of the following:

(i) A description of the test locomotive, including:

(A) Configuration and engine family identification.

(B) Year, make, and build date.

(C) Engine identification number.

(D) Number of megawatt-hours (or miles if applicable) of service accumulated on locomotive prior to testing.

(E) Description of Green Engine Factor; how it is determined and how it is applied.

(ii) Location(s) where service accumulation was conducted and description of accumulation procedure and schedule, if applicable. If the locomotive was introduced into service between assembly and testing, you are only required to summarize the service accumulation, rather than identifying specific locations.

(iii) Test number, date, test procedure used, initial test results before and after rounding, and final test results for all production line emission tests conducted, whether valid or invalid, and the reason for invalidation of any test results, if applicable.

(iv) A complete description of any adjustment, modification, repair, preparation, maintenance, and testing which was performed on the test locomotive, has not been reported pursuant to any other paragraph of this subpart, and will not be performed on other production locomotives.

(v) Any other information we may ask you to add to your written report so we can determine whether your new engines conform with the requirements of this part.

(6) For each failed locomotive as defined in § 1033.330(a), a description of the remedy and test results for all retests as required by § 1033.340(g).

(7) The following signed statement and endorsement by an authorized representative of your company:

We submit this report under sections 208 and 213 of the Clean Air Act. Our production-line testing conformed completely with the requirements of 40 CFR part 1033. We have not changed production processes or quality-control procedures for the test locomotives in a way that might affect emission controls. All the information in this report is true and accurate to the best of my knowledge. I know of the penalties for violating the Clean Air Act and the regulations. (Authorized Company Representative)

**§ 1033.325 Maintenance of records; submittal of information.**

(a) You must establish, maintain, and retain the following adequately organized and indexed test records:

(1) A description of all equipment used to test locomotives. The equipment requirements in subpart F of this part apply to tests performed under this subpart. Maintain these records for each test cell that can be used to perform emission testing under this subpart.

(2) Individual test records for each production line test or audit including:

(i) The date, time, and location of each test or audit.

(ii) The method by which the Green Engine Factor was calculated or the number of hours of service accumulated on the test locomotive when the test began and ended.

(iii) The names of all supervisory personnel involved in the conduct of the production line test or audit;

(iv) A record and description of any adjustment, repair, preparation or modification performed on test locomotives, giving the date, associated time, justification, name(s) of the authorizing personnel, and names of all supervisory personnel responsible for the conduct of the action.

(v) If applicable, the date the locomotive was shipped from the assembly plant, associated storage facility or port facility, and the date the locomotive was received at the testing facility.

(vi) A complete record of all emission tests or audits performed under this subpart (except tests performed directly by us), including all individual worksheets and/or other documentation relating to each test, or exact copies thereof, according to the record requirements specified in subpart F of this part and 40 CFR part 1065.

(vii) A brief description of any significant events during testing not otherwise described under this paragraph (a)(2), commencing with the test locomotive selection process and including such extraordinary events as engine damage during shipment.

(b) Keep all records required to be maintained under this subpart for a period of eight years after completion of all testing. Store these records in any format and on any media, as long as you can promptly provide to us organized, written records in English if we ask for them and all the information is retained.

(c) Send us the following information with regard to locomotive production if we ask for it:

(1) Projected production for each configuration within each engine family for which certification has been requested and/or approved.

(2) Number of locomotives, by configuration and assembly plant, scheduled for production.

(d) Nothing in this section limits our authority to require you to establish, maintain, keep or submit to us information not specified by this section.

(e) Send all reports, submissions, notifications, and requests for approval made under this subpart to the Designated Compliance Officer using an approved format.

(f) You must keep a copy of all reports submitted under this subpart.

**§ 1033.330 Compliance criteria for production line testing.**

There are two types of potential failures: failure of an individual locomotive to comply with the standards, and a failure of an engine family to comply with the standards.

(a) A failed locomotive is one whose final test results pursuant to § 1033.320(c), for one or more of the applicable pollutants, exceed an applicable emission standard or FEL.

(b) An engine family is deemed to be in noncompliance, for purposes of this subpart, if at any time throughout the model year, the average of an initial failed locomotive and the two additional locomotives tested, is greater than any applicable emission standard or FEL.

**§ 1033.335 Remanufactured locomotives: installation audit requirements.**

The section specifies the requirements for certifying remanufacturers to audit the remanufacture of locomotives covered by their certificates of conformity for proper components, component settings and component installations on randomly chosen locomotives in an engine family.

(a) You must ensure that all emission related components are properly installed on the locomotive and are set to the proper specification as indicated in your instructions. You may submit audits performed by the owners/operators of the locomotives, provided the audits are performed in accordance with the provisions of this section. We may require that you obtain affidavits for audits performed by owners/operators.

(b) Audit at least five percent of your annual production per model year per installer or ten per engine family per installer, whichever is less. You must perform more audits if there are any failures. Randomly select the locomotives to be audited after the remanufacture is complete. We may allow you to select locomotives prior to the completion of the remanufacture, if the preselection would not have the potential to affect the manner in which the locomotive was remanufactured (e.g., where the installer is not aware of the selection prior to the completion of the remanufacture). Unless we specify otherwise, you are not required to audit installers that remanufacture fewer than 10 locomotives per year under your certificates (combined for all of your engine families).

(c) The audit should be completed as soon as is practical after the remanufacture is complete. In no case may the remanufactured locomotive accumulate more than 45,000 miles prior to an audit.

(d) A locomotive fails if any emission related components are found to be improperly installed, improperly adjusted or incorrectly used.

(e) If a remanufactured locomotive fails an audit, then you must audit two additional locomotives from the next ten remanufactured in that engine family by that installer.

(f) An engine family is determined to have failed an audit, if at any time during the model year, you determine that the three locomotives audited are found to have had any improperly installed, improperly adjusted or incorrectly used components. You must notify us within 2 working days of a determination of an engine family audit failure.

(g) Within 45 calendar days of the end of each quarter, each remanufacturer must send the Designated Compliance Officer a report which includes the following information:

(1) The location and description of your audit facilities which were utilized to conduct auditing reported pursuant to this section;

(2) Total production and sample size for each engine family;

(3) The applicable standards and/or FELs against which each engine family was audited;

(4) For each audit conducted:

(i) A description of the audited locomotive, including:

(A) Configuration and engine family identification;

(B) Year, make, build date, and remanufacture date; and

(C) Locomotive and engine identification numbers;

(ii) Any other information we request relevant to the determination whether the new locomotives being remanufactured do in fact conform with the regulations with respect to which the certificate of conformity was issued;

(5) For each failed locomotive as defined in paragraph (d) of this section, a description of the remedy as required by § 1033.340(g);

(6) The following signed statement and endorsement by your authorized representative:

We submit this report under sections 208 and 213 of the Clean Air Act. Our production-line auditing conformed completely with the requirements of 40 CFR part 1033. We have not changed production processes or quality-control procedures for the audited locomotives in a way that might affect emission controls. All the information in this report is true and accurate to the best of my knowledge. I know of the penalties for violating the Clean Air Act and the regulations. (Authorized Company Representative)

**§ 1033.340 Suspension and revocation of certificates of conformity.**

(a) A certificate can be suspended for an individual locomotive as follows:

(1) The certificate of conformity is automatically suspended for any locomotive that fails a production line test pursuant to § 1033.330(a), effective from the time the testing of that locomotive is completed.

(2) The certificate of conformity is automatically suspended for any locomotive that fails an audit pursuant to § 1033.335(d), effective from the time that auditing of that locomotive is completed.

(b) A certificate can be suspended for an engine family as follows:

(1) We may suspend the certificate of conformity for an engine family that is in noncompliance pursuant to § 1033.330(b), thirty days after the engine family is deemed to be in noncompliance.

(2) We may suspend the certificate of conformity for an engine family that is determined to have failed an audit pursuant to § 1033.335(f). This suspension will not occur before thirty days after the engine family is deemed to be in noncompliance.

(c) If we suspend your certificate of conformity for an engine family, the suspension may apply to all facilities producing engines from an engine family, even if you find noncompliant engines only at one facility.

(d) We may revoke a certificate of conformity for any engine family in whole or in part if:

(1) You fail to comply with any of the requirements of this subpart.

(2) You submit false or incomplete information in any report or information provided to us under this subpart.

(3) You render inaccurate any test data submitted under this subpart.

(4) An EPA enforcement officer is denied the opportunity to conduct activities authorized in this subpart.

(5) An EPA enforcement officer is unable to conduct authorized activities for any reason.

(e) We will notify you in writing of any suspension or revocation of a certificate of conformity in whole or in part; a suspension or revocation is effective upon receipt of such notification or thirty days from the time a locomotive or engine family is deemed to be in noncompliance under §§ 1033.320(d), 1033.330(a), 1033.330(b), or 1033.335(f) is made, whichever is earlier, except that the certificate is immediately suspended with respect to any failed locomotives as provided for in paragraph (a) of this section.

(f) We may revoke a certificate of conformity for an engine family when the certificate has been suspended under paragraph (b) or (c) of this section if the remedy is one requiring a design change or changes to the locomotive, engine and/or emission control system as described in the application for certification of the affected engine family.

(g) Once a certificate has been suspended for a failed locomotive, as provided for in paragraph (a) of this section, you must take all the following actions before the certificate is reinstated for that failed locomotive:

(1) Remedy the nonconformity.

(2) Demonstrate that the locomotive conforms to applicable standards or family emission limits by retesting, or reauditing if applicable, the locomotive in accordance with this part.

(3) Submit a written report to us after successful completion of testing (or auditing, if applicable) on the failed locomotive, which contains a description of the remedy and testing (or auditing) results for each locomotive in addition to other information that may be required by this part.

(h) Once a certificate for a failed engine family has been suspended pursuant to paragraph (b) or (c) of this section, you must take the following actions before we will consider reinstating the certificate:

(1) Submit a written report to us identifying the reason for the noncompliance of the locomotives, describing the remedy, including a description of any quality control measures you will use to prevent future occurrences of the problem, and stating the date on which the remedies will be implemented.

(2) Demonstrate that the engine family for which the certificate of conformity has been suspended does in fact comply with the regulations of this part by testing (or auditing) locomotives selected from normal production runs of that engine family. Such testing (or auditing) must comply with the provisions of this subpart. If you elect to continue testing (or auditing) individual locomotives after suspension of a certificate, the certificate is reinstated for any locomotive actually determined to be in conformance with the applicable standards or family emission limits through testing (or auditing) in accordance with the applicable test procedures, provided that we have not revoked the certificate under paragraph (f) of this section.

(i) If the certificate has been revoked for an engine family, you must take the following actions before we will issue a certificate that would allow you to continue introduction into commerce of a modified version of that family:

(1) If we determine that the change(s) in locomotive design may have an effect on emission deterioration, we will notify you within five working days after receipt of the report in paragraph (h) of this section, whether subsequent testing/auditing under this subpart will be sufficient to evaluate the change(s) or whether additional testing (or auditing) will be required.

(2) After implementing the change or changes intended to remedy the nonconformity, you must demonstrate that the modified engine family does in fact conform with the regulations of this part by testing locomotives (or auditing for remanufactured locomotives) selected from normal production runs of that engine family. When both of these requirements are met, we will reissue the certificate or issue a new certificate. If this subsequent testing (or auditing) reveals failing data the revocation remains in effect.

(j) At any time subsequent to an initial suspension of a certificate of conformity for a test or audit locomotive pursuant to paragraph (a) of this section, but not later than 30 days (or such other period as may we allow) after the notification our decision to suspend or revoke a certificate of conformity in whole or in part pursuant to this section, you may request a hearing as to whether the tests or audits have been properly conducted or any sampling methods have been properly applied. (See § 1033.920.)

(k) Any suspension of a certificate of conformity under paragraphs (a) through (d) of this section will be made only after you have been offered an opportunity for a hearing conducted in accordance with § 1033.920. It will not apply to locomotives no longer in your possession.

(l) If we suspend, revoke, or void a certificate of conformity, and you believe that our decision was based on erroneous information, you may ask us to reconsider our decision before requesting a hearing. If you demonstrate to our satisfaction that our decision was based on erroneous information, we will reinstate the certificate.

(m) We may conditionally reinstate the certificate for that family so that you do not have to store non-test locomotives while conducting subsequent testing or auditing of the noncomplying family subject to the following condition: you must commit to recall all locomotives of that family produced from the time the certificate is conditionally reinstated if the family fails subsequent testing, or auditing if applicable, and must commit to remedy any nonconformity at no expense to the owner.

## Subpart E—In-use Testing

### § 1033.401 Applicability.

The requirements of this subpart are applicable to certificate holders for locomotives subject to the provisions of this part. These requirements may also be applied to other manufacturers/remanufacturers as specified in § 1033.1(d).

### § 1033.405 General provisions.

(a) Each year, we will identify engine families and configurations within families that you must test according to the requirements of this section.

(1) We may require you to test one engine family each year for which you have received a certificate of conformity. If you are a manufacturer that holds certificates of conformity for both freshly manufactured and remanufactured locomotive engine families, we may require you to test one freshly manufactured engine family and one remanufactured engine family. We may require you to test additional engine families if we have reason to believe that locomotives in such families do not comply with emission standards in use.

(2) For engine families of less than 10 locomotives per year, no in-use testing will be required, unless we have reason to believe that those engine families are not complying with the applicable emission standards in use.

(b) Test a sample of in-use locomotives from an engine family, as specified in § 1033.415. We will use these data, and any other data available to us, to determine the compliance status of classes of locomotives,

including for purposes of recall under 40 CFR part 1068, and whether remedial action is appropriate.

**§ 1033.410 In-use test procedure.**

(a) You must test the complete locomotives; you may not test engines that are not installed in locomotives at the time of testing.

(b) Test the locomotive according to the test procedures outlined in subpart F of this part, except as provided in this section.

(c) Use the same test procedures for in-use testing as were used for certification, except for cases in which certification testing was not conducted with a locomotive, but with a development engine or other engine. In such cases, we will specify deviations from the certification test procedures as appropriate. We may allow or require other alternate procedures, with advance approval.

(d) Set all adjustable locomotive or engine parameters to values or positions that are within the range specified in the certificate of conformity. We may require you to set these parameters to specific values.

(e) We may waive a portion of the applicable test procedure that is not necessary to determine in-use compliance.

**§ 1033.415 General testing requirements.**

(a) *Number of locomotives to be tested.* Determine the number of locomotives to be tested by the following method:

(1) Test a minimum of 2 locomotives per engine family, except as provided in paragraph (a)(2) of this section. You must test additional locomotives if any locomotives fail to meet any standard. Test 2 more locomotives for each failing locomotive, but stop testing if the total number of locomotives tested equals 10.

(2) If an engine family has been certified using carryover emission data from a family that has been previously tested under paragraph (a)(1) of this section (and we have not ordered or begun to negotiate remedial action of that family), you need to test only one locomotive per engine family. If that locomotive fails to meet applicable standards for any pollutant, testing for that engine family must be conducted as outlined under paragraph (a)(1) of this section.

(3) You may ask us to allow you to test more locomotives than the minimum number described above or you may concede failure before testing 10 locomotives.

(b) *Compliance criteria.* We will consider failure rates, average emission levels and the existence of any defects among other factors in determining whether to pursue remedial action. We may order a recall pursuant to 40 CFR part 1068 before testing reaches the tenth locomotive.

(c) *Collection of in-use locomotives.* Procure in-use locomotives that have been operated for 50 to 75 percent of the locomotive's useful life for testing under this subpart. Complete testing required by this section for any engine family before useful life of the locomotives in the engine family passes. (**Note:** § 1033.820 specifies that railroads must make reasonable efforts to enable you to perform this testing.)

**§ 1033.420 Maintenance, procurement and testing of in-use locomotives.**

(a) A test locomotive must have a maintenance history that is representative of actual in-use conditions, and identical or equivalent to your recommended emission-related maintenance requirements.

(1) When procuring locomotives for in-use testing, ask the end users about the accumulated usage, maintenance, operating conditions, and storage of the test locomotives.

(2) Your selection of test locomotives is subject to our approval. Maintain the information you used to procure locomotives for in-use testing in the same manner as is required in § 1033.250.

(b) You may perform minimal set-to-spec maintenance on a test locomotive before conducting in-use testing. Maintenance may include only that which is listed in the owner's instructions for locomotives with the amount of service and age of the acquired test locomotive. Maintain documentation of all maintenance and adjustments.

(c) If the locomotive selected for testing is equipped with emission diagnostics meeting the requirements in § 1033.110 and the MIL is illuminated, you may read the code and repair the malfunction according to your emission-related maintenance instructions, but only to the degree that an owner/operator would be required to repair the malfunction under § 1033.815.

(d) Results of at least one valid set of emission tests using the test procedure described in subpart F of this part is required for each in-use locomotive.

(e) If in-use testing results show that an in-use locomotive fails to comply with any applicable emission standards, you must determine the reason for noncompliance and report your findings in the quarterly in-use test result report described in § 1033.425.

**§ 1033.425 In-use test program reporting requirements.**

(a) Within 90 days of completion of testing, send us all emission test results generated from the in-use testing program. Report all of the following information for each locomotive tested:

(1) Engine family, and configuration.

(2) Locomotive and engine models.

(3) Locomotive and engine serial numbers.

(4) Date of manufacture or remanufacture, as applicable.

(5) Megawatt-hours of use (or miles, as applicable).

(6) Date and time of each test attempt.

(7) Results of all emission testing.

(8) Results (if any) of each voided or failed test attempt.

(9) Summary of all maintenance and/or adjustments performed.

(10) Summary of all modifications and/or repairs.

(11) Determinations of noncompliance.

(12) The following signed statement and endorsement by an authorized representative of your company.

We submit this report under sections 208 and 213 of the Clean Air Act. Our in-use testing conformed completely with the requirements of 40 CFR part 1033. All the information in this report is true and accurate to the best of my knowledge. I know of the penalties for violating the Clean Air Act and the regulations. (Authorized Company Representative)

(b) Report to us within 90 days of completion of testing the following information for each engine family tested:

(1) The serial numbers of all locomotive that were excluded from the test sample because they did not meet the maintenance requirements of § 1033.420.

(2) The owner of each locomotive identified in paragraph (b)(1) of this section (or other entity responsible for the maintenance of the locomotive).

(3) The specific reasons why the locomotives were excluded from the test sample.

(c) Submit the information outlined in paragraphs (a) and (b) of this section electronically using an approved format. We may exempt you from this requirement upon written request with supporting justification.

(d) Send all testing reports and requests for approvals to the Designated Compliance Officer.

## Subpart F—Test Procedures

**§ 1033.501 General provisions.**

(a) Except as specified in this subpart, use the equipment and procedures for

compression-ignition engines in 40 CFR part 1065 to determine whether your locomotives meet the duty-cycle emission standards in § 1033.101. Use the applicable duty cycles specified in this subpart. Measure emissions of all the pollutants we regulate in § 1033.101 plus $CO_2$. The general test procedure is the procedure specified in 40 CFR part 1065 for steady-state discrete-mode cycles. However, if you use the optional ramped modal cycle in § 1033.520, follow the procedures for ramped modal testing in 40 CFR part 1065. The following exceptions from the 1065 procedures apply:

(1) You must average power and emissions over the sampling periods specified in this subpart for both discrete-mode testing and ramped modal testing.

(2) The test cycle is considered to be steady-state with respect to operator demand rather than engine speed and load.

(3) The provisions related to engine mapping and duty cycle generation (40 CFR 1065.510 and 1065.512) are not applicable to testing of complete locomotives or locomotive engines because locomotive operation and locomotive duty cycles are based on operator demand via locomotive notch settings rather than engine speeds and loads. The cycle validation criteria (40 CFR 1065.514) are not applicable to testing of complete locomotives but do apply for dynamometer testing of engines.

(b) You may use special or alternate procedures to the extent we allow as them under 40 CFR 1065.10. In some cases, we allow you to use procedures that are less precise or less accurate than the specified procedures if they do not affect your ability to show that your locomotives comply with the applicable emission standards. This generally requires emission levels to be far enough below the applicable emission standards so that any errors caused by greater imprecision or inaccuracy do not affect your ability to state unconditionally that the locomotives meet all applicable emission standards.

(c) This part allows (with certain limits) testing of either a complete locomotive or a separate uninstalled engine. When testing a locomotive, you must test the complete locomotive in its in-use configuration, except that you may disconnect the power output and fuel input for the purpose of testing. To calculate power from measured alternator/generator output, use an alternator/generator efficiency curve that varies with speed/load, consistent with good engineering judgment.

(d) Unless smoke standards do not apply for your locomotives or the testing requirement is waived, measure smoke emissions using the procedures in § 1033.525.

(e) Use the applicable fuel listed in 40 CFR part 1065, subpart H, to perform valid tests.

(1) For diesel-fueled locomotives, use the appropriate diesel fuel specified in 40 CFR part 1065, subpart H, for emission testing. The applicable diesel test fuel is either the ultra low-sulfur diesel or low-sulfur diesel fuel, as specified in § 1033.101. Identify the test fuel in your application for certification and ensure that the fuel inlet label is consistent with your selection of the test fuel (see §§ 1033.101 and 1033.135).

(2) You may ask to use as a test fuel commercially available diesel fuel similar but not identical to the applicable fuel specified in 40 CFR part 1065, subpart H; we will approve your request if you show us that it does not affect your ability to demonstrate compliance with the applicable emission standards. If your locomotive uses sulfur-sensitive technology, you may not use an in-use fuel that has a lower sulfur content than the range specified for the otherwise applicable test fuel in 40 CFR part 1065. If your locomotive does not use sulfur-sensitive technology, we may allow you to use an in-use fuel that has a lower sulfur content than the range specified for the otherwise applicable test fuel in 40 CFR part 1065, but may require that you correct PM emissions to account for the sulfur differences.

(3) For service accumulation, use the test fuel or any commercially available fuel that is representative of the fuel that in-use locomotives will use.

(f) See § 1033.505 for information about allowable ambient testing conditions for testing.

(g) This subpart is addressed to you as a manufacturer/remanufacturer, but it applies equally to anyone who does testing for you, and to us when we perform testing to determine if your locomotives meet emission standards.

(h) We may also perform other testing as allowed by the Clean Air Act.

(i) For passenger locomotives that can generate hotel power from the main propulsion engine, the locomotive must comply with the emission standards when in either hotel or non-hotel setting.

### § 1033.505 Ambient conditions.

This section specifies the allowable ambient conditions (including temperature and pressure) under which testing may be performed to determine compliance with the emission standards of (1068.101. Manufacturers/remanufacturers may ask to perform testing at conditions other than those allowed by this section. We will allow such testing provided it does not affect your ability to demonstrate compliance with the applicable standards. See §§ 1033.101 and 1033.115 for more information about the requirements that apply at other conditions.

(a) *Temperature.* Testing may be performed with ambient temperatures from 15.5 °C (60 °F) to 40.5 °C (105 °F). Do not correct emissions for temperature effects within this range. If we allow you to perform testing at lower ambient temperatures, you must correct $NO_X$ emissions for temperature effects, consistent with good engineering judgment. For example, if the intake air temperature (at the manifold) is lower at the test temperature than at 15.5 °C, you generally will need to adjust your measured $NO_X$ emissions to account for the effect of the lower intake air temperature. However, if you maintain a constant manifold air temperature, you will generally not need to correct emissions.

(b) *Altitude/pressure.* Testing may be performed with ambient pressures from 88.000 kPa (26.0 in Hg) to 103.325 kPa (30.5 in Hg). This is intended to correspond to altitudes up to 4000 feet above sea level. Do not correct emissions for pressure effects within this range.

(c) *Humidity.* Testing may be performed with any ambient humidity level. Correct $NO_X$ emissions as specified in 40 CFR 1065.670. Do not correct any other emissions for humidity effects.

(d) *Wind.* If you test outdoors, use good engineering judgment to ensure that excessive wind does not affect your emission measurements. Winds are excessive if they disturb the size, shape, or location of the exhaust plume in the region where exhaust samples are drawn or where the smoke plume is measured, or otherwise cause any dilution of the exhaust. Tests may be conducted if wind shielding is placed adjacent to the exhaust plume to prevent bending, dispersion, or any other distortion of the exhaust plume as it passes through the optical unit or through the sample probe.

### § 1033.510 Auxiliary power units.

If your locomotive is equipped with an auxiliary power unit (APU) that operates during an idle shutdown mode, you must account for the APU's emissions rates as specified in this section, unless the APU is part of an AESS system that was certified separate from the rest of the locomotive. This

section does not apply for auxiliary engines that only provide hotel power.

(a) Adjust the locomotive main engine's idle emission rate (g/hr) as specified in § 1033.530. Add the APU emission rate (g/hr) that you determine under paragraph (b) of this section. Use the locomotive main engine's idle power as specified in § 1033.530.

(b) Determine the representative emission rate for the APU using one of the following methods.

(1) *Installed APU tested separately.* If you separately measure emission rates (g/hr) for each pollutant from the APU installed in the locomotive, you may use the measured emissions rates (g/hr) as the locomotive's idle emissions rates when the locomotive is shutdown and the APU is operating. For all testing other than in-use testing, apply appropriate deterioration factors to the measured emission rates. You may ask to carryover APU emission data for a previous test, or use data for the same APU installed on locomotives in another engine family.

(2) *Uninstalled APU tested separately.* If you separately measure emission rates (g/hr) over an appropriate duty-cycle for each pollutant from the APU when it is not installed in the locomotive, you may use the measured emissions rates (g/hr) as the locomotive's idle emissions rates when the locomotive is shutdown and the APU is operating. For the purpose of this paragraph (b)(2), an appropriate duty-cycle is one that approximates the APU engine's cycle-weighted power when operating in the locomotive. Apply appropriate deterioration factors to the measured emission rates. You may ask to carryover APU emission data for a previous test, or use data for the same APU installed on locomotives in another engine family.

(3) *APU engine certification data.* If the engine used for the APU has been certified to EPA emission standards you may calculate the APU's emissions based upon existing EPA-certification information about the APU's engine. In this case, calculate the APU's emissions as follows:

(i) For each pollutant determine the brake-specific standard/FEL to which the APU engine was originally EPA-certified.

(ii) Determine the APU engine's cycle-weighted power when operating in the locomotive.

(iii) Multiply each of the APU's applicable brake-specific standards/FELs by the APU engine's cycle-weighted power. The results are the APU's emissions rates (in g/hr).

(iv) Use these emissions rates as the locomotive's idle emissions rates when the locomotive is shutdown and the APU is running. Do not apply a deterioration factor to these values.

(4) *Other.* You may ask us to approve an alternative means to account for APU emissions.

**§ 1033.515 Discrete-mode steady-state emission tests of locomotives and locomotive engines.**

This section describes how to test locomotives at each notch setting so that emissions can be weighted according to either the line-haul duty cycle or the switch duty cycle. The locomotive test cycle consists of a warm-up followed by a sequence of nominally steady-state discrete test modes, as described in Table 1 to this section. The test modes are steady-state with respect to operator demand, which is the notch setting for the locomotive. Engine speeds and loads are not necessarily steady-state.

(a) Follow the provisions of 40 CFR part 1065, subpart F for general pre-test procedures (including engine and sampling system pre-conditioning which is included as engine warm-up). You may operate the engine in any way you choose to warm it up prior to beginning the sample preconditioning specified in 40 CFR part 1065.

(b) Begin the test by operating the locomotive over the pre-test portion of the cycle specified in Table 1 to this section. For locomotives not equipped with catalysts, you may begin the test as soon as the engine reaches its lowest idle setting. For catalyst-equipped locomotives, you may begin the test in normal idle mode if the engine does not reach its lowest idle setting within 15 minutes. If you do start in normal idle, run the low idle mode after normal idle, then resume the specified mode sequence (without repeating the normal idle mode).

(c) Measure emissions during the rest of the test cycle.

(1) Each test mode begins when the operator demand to the locomotive or engine is set to the applicable notch setting.

(2) Start measuring gaseous emissions, power, and fuel consumption at the start of the test mode A and continue until the completion of test mode 8. You may zero and span analyzers between modes (or take other actions consistent with good engineering judgment).

(i) The sample period over which emissions for the mode are averaged generally begins when the operator demand is changed to start the test mode and ends within 5 seconds of the minimum sampling time for the test mode is reached. However, you need to shift the sampling period to account for sample system residence times. Follow the provisions of 40 CFR 1065.308 and 1065.309 to time align emission and work measurements.

(ii) The sample period is 300 seconds for all test modes except mode 10. The sample period for test mode 8 is 600 seconds.

(3) If gaseous emissions are sampled using a batch-sampling method, begin proportional sampling at the beginning of each sampling period and terminate sampling once the minimum time in each test mode is reached, ± 5 seconds.

(4) If applicable, begin the smoke test at the start of the test mode A. Continue collecting smoke data until the completion of test mode 8. Refer to § 1033.101 to determine applicability of smoke testing and § 1033.525 for details on how to conduct a smoke test.

(5) Begin proportional sampling of PM emissions at the beginning of each sampling period and terminate sampling once the minimum time in each test mode is reached, ± 5 seconds, unless good engineering judgment requires you sample for a longer period to allow for collection of a sufficiently large PM sample.

(6) Proceed through each test mode in the order specified in Table 1 to this section until the locomotive test cycle is completed.

(7) At the end of each numbered test mode, you may continue to operate sampling and dilution systems to allow corrections for the sampling system's response time.

(8) Following the completion of Mode 8, conduct the post sampling procedures in § 1065.530. Note that cycle validation criteria do not apply to testing of complete locomotives.

TABLE 1 TO § 1033.515.—LOCOMOTIVE TEST CYCLE

| Test mode | Notch setting | Time in mode (minutes) [1] | Sample averaging period for emissions [1] |
|---|---|---|---|
| Pre-test idle | Lowest idle setting | 10 to 15 [3] | Not applicable |
| A | Low idle [2] | 5 to 10 | 300 ± 5 seconds |
| B | Normal idle | 5 to 10 | 300 ± 5 seconds |

TABLE 1 TO § 1033.515.—LOCOMOTIVE TEST CYCLE—Continued

| Test mode | Notch setting | Time in mode (minutes) [1] | Sample averaging period for emissions [1] |
|---|---|---|---|
| C | Dynamic brake [2] | 5 to 10 | 300 ± 5 seconds |
| 1 | Notch 1 | 5 to 10 | 300 ± 5 seconds |
| 2 | Notch 2 | 5 to 10 | 300 ± 5 seconds |
| 3 | Notch 3 | 5 to 10 | 300 ± 5 seconds |
| 4 | Notch 4 | 5 to 10 | 300 ± 5 seconds |
| 5 | Notch 5 | 5 to 10 | 300 ± 5 seconds |
| 6 | Notch 6 | 5 to 10 | 300 ± 5 seconds |
| 7 | Notch 7 | 5 to 10 | 300 ± 5 seconds |
| 8 | Notch 8 | 10 to 15 | 600 ± 5 seconds |

[1] The time in each notch and sample averaging period may be extended as needed to allow for collection of a sufficiently large PM sample.
[2] Omit if not so equipped.
[3] See paragraph (b) of this section for alternate pre-test provisions.

(f) There are two approaches for sampling PM emissions during discrete-mode steady-state testing as described in this paragraph (f).

(1) *Engines certified to a PM standard/FEL at or above 0.05 g/bhp-hr.* Use a separate PM filter sample for each test mode of the locomotive test cycle according to the procedures specified in paragraph (a) through (e) of this section. You may ask to use a shorter sampling period if the total mass expected to be collected would cause unacceptably high pressure drop across the filter before reaching the end of the required sampling time. We will not allow sampling times less than 60 seconds. When we conduct locomotive emission tests, we will adhere to the time limits for each of the numbered modes in Table 1 to § 1033.515.

(2) *Engines certified to a PM standard/FEL below 0.05 g/bhp-hr.* (i) You may use separate PM filter samples for each test mode as described in paragraph (f)(1) of this section; however, we recommend that you do not. The low rate of sample filter loading will result in very long sampling times and the large number of filter samples may induce uncertainty stack-up that will lead to unacceptable PM measurement accuracy. Instead, we recommend that you measure PM emissions as specified in paragraph (f)(2)(ii) of this section.

(ii) You may use a single PM filter for sampling PM over all of the test modes of the locomotive test cycle as specified in this paragraph (f)(2). Vary the sample time to be proportional to the applicable line-haul or switch weighting factors specified in § 1033.530 for each mode. The minimum sampling time for each mode is 400 seconds multiplied by the weighting factor. For example, for a mode with a weighting factor of 0.030, the minimum sampling time is 12.0 seconds. PM sampling in each mode must be proportional to engine exhaust flow as specified in 40 CFR part 1065. Begin proportional sampling of PM emissions at the beginning of each test mode as is specified in paragraph (c) of this section. End the sampling period for each test mode so that sampling times are proportional to the weighting factors for the applicable duty cycles. If necessary, you may extend the time limit for each of the test modes beyond the sampling times in Table 1 to § 1033.515 to increase the sampled mass of PM emissions or to account for proper weighting of the PM emission sample over the entire cycle, using good engineering judgment.

(g) This paragraph (g) describes how to test locomotive engines when not installed in a locomotive. Note that the test procedures for dynamometer engine testing of locomotive engines are intended to produce emission measurements that are essentially identical to emission measurements produced during testing of complete locomotives using the same engine configuration. The following requirements apply for all engine tests:

(1) Specify a second-by-second set of engine speed and load points that are representative of in-use locomotive operation for each of the set-points of the locomotive test cycle described in Table 1 to § 1033.515, including transitions from one notch to the next. This is your reference cycle for validating your cycle. You may ignore points between the end of the sampling period for one mode and the point at which you change the notch setting to begin the next mode.

(2) Keep the temperature of the air entering the engine after any charge air cooling to within 5 °C of the typical intake manifold air temperature when the engine is operated in the locomotive under similar ambient conditions.

(3) Proceed with testing as specified for testing complete locomotives as specified in paragraphs (a) through (f) of this section.

**§ 1033.520 Alternative ramped modal cycles.**

(a) Locomotive testing over a ramped modal cycle is intended to improve measurement accuracy at low emission levels by allowing the use of batch sampling of PM and gaseous emissions over multiple locomotive notch settings. Ramped modal cycles combine multiple test modes of a discrete-mode steady-state into a single sample period. Time in notch is varied to be proportional to weighting factors. The ramped modal cycle for line-haul locomotives is shown in Table 1 to this section. The ramped modal cycle for switch locomotives is shown in Table 2 to this section. Both ramped modal cycles consist of a warm-up followed by three test phases that are each weighted in a manner that maintains the duty cycle weighting of the line-haul and switch locomotive duty cycles in § 1033.530. You may use ramped modal cycle testing for any locomotives certified under this part.

(b) Ramped modal testing requires continuous gaseous analyzers and three separate PM filters (one for each phase). You may collect a single batch sample for each test phase, but you must also measure gaseous emissions continuously to allow calculation of notch caps as required under § 1033.101.

(c) You may operate the engine in any way you choose to warm it up. Then follow the provisions of 40 CFR part 1065, subpart F for general pre-test procedures (including engine and sampling system pre-conditioning).

(d) Begin the test by operating the locomotive over the pre-test portion of the cycle. For locomotives not equipped with catalysts, you may begin the test as soon as the engine reaches its lowest idle setting. For catalyst-equipped locomotives, you may begin the test in normal idle mode if the engine does not reach its lowest idle setting within 15 minutes. If you do start in normal idle, run the low idle mode after normal idle,

then resume the specified mode sequence (without repeating the normal idle mode).

(e) Start the test according to 40 CFR 1065.530.

(1) Each test phase begins when operator demand is set to the first operator demand setting of each test phase of the ramped modal cycle. Each test phase ends when the time in mode is reached for the last mode in the test phase.

(2) For PM emissions (and other batch sampling), the sample period over which emissions for the phase are averaged generally begins within 10 seconds after the operator demand is changed to start the test phase and ends within 5 seconds of the sampling time for the test mode is reached. (see Table 1 to this section). You may ask to delay the start of the sample period to account for sample system residence times longer than 10 seconds.

(3) Use good engineering judgment when transitioning between phases.

(i) You should come as close as possible to simultaneously:

(A) Ending batch sampling of the previous phase.

(B) Starting batch sampling of the next phase.

(C) Changing the operator demand to the notch setting for the first mode in the next phase.

(ii) Avoid the following:

(A) Overlapping batch sampling of the two phases.

(B) An unnecessarily long delay before starting the next phase.

(iii) For example, the following sequence would generally be appropriate:

(A) End batch sampling for phase 2 after 240 seconds in notch 7.

(B) Switch the operator demand to notch 8 one second later.

(C) Begin batch sampling for phase 3 one second after switching to notch 8.

(4) If applicable, begin the smoke test at the start of the first test phase of the applicable ramped modal cycle. Continue collecting smoke data until the completion of final test phase. Refer to § 1033.101 to determine applicability of the smoke standards and § 1033.525 for details on how to conduct a smoke test.

(5) Proceed through each test phase of the applicable ramped modal cycle in the order specified until the test is completed.

(6) If you must void a test phase you may repeat the phase. To do so, begin with a warm engine operating at the notch setting for the last mode in the previous phase. You do not need to repeat later phases if they were valid. (**Note:** you must report test results for all voided tests and test phases.)

(7) Following the completion of the third test phase of the applicable ramped modal cycle, conduct the post sampling procedures specified in 40 CFR 1065.530.

TABLE 1 TO § 1033.520.—LINE-HAUL LOCOMOTIVE RAMPED MODAL CYCLE

| RMC test phase | Weighting factor | RMC mode | Time in mode (seconds) | Notch setting |
|---|---|---|---|---|
| Pre-test idle | NA | NA | 600 to 900 | Lowest idle setting.[1] |
| Phase 1 | | A | 600 | Low Idle.[2] |
| (Idle test) | 0.380 | B | 600 | Normal Idle. |
| **Phase Transition** | | | | |
| | | C | 1000 | Dynamic Brake.[3] |
| | | 1 | 520 | Notch 1. |
| | | 2 | 520 | Notch 2. |
| | | 3 | 416 | Notch 3. |
| | | 4 | 352 | Notch 4. |
| Phase 2 | 0.389 | 5 | 304 | Notch 5. |
| **Phase Transition** | | | | |
| | | 6 | 144 | Notch 6. |
| | | 7 | 111 | Notch 7. |
| Phase 3 | 0.231 | 8 | 600 | Notch 8. |

[1] See paragraph (d) of this section for alternate pre-test provisions.
[2] Operate at normal idle for modes A and B if not equipped with multiple idle settings.
[3] Operate at normal idle if not equipped with a dynamic brake.

TABLE 2 TO § 1033.520.—SWITCH LOCOMOTIVE RAMPED MODAL CYCLE

| RMC test phase | Weighting factor | RMC mode | Time in mode (seconds) | Notch setting |
|---|---|---|---|---|
| Pre-test idle | NA | NA | 600 to 900 | Lowest idle setting.[1] |
| Phase 1 | | A | 600 | Low Idle.[2] |
| (Idle test) | 0.598 | B | 600 | Normal Idle. |
| **Phase Transition** | | | | |
| | | 1 | 868 | Notch 1. |
| | | 2 | 861 | Notch 2. |
| | | 3 | 406 | Notch 3. |
| | | 4 | 252 | Notch 4. |
| Phase 2 | 0.377 | 5 | 252 | Notch 5. |

TABLE 2 TO § 1033.520.—SWITCH LOCOMOTIVE RAMPED MODAL CYCLE—Continued

| RMC test phase | Weighting factor | RMC mode | Time in mode (seconds) | Notch setting |
|---|---|---|---|---|
| **Phase Transition** | | | | |
| | ..... | 6 ..... | 1080 ..... | Notch 6. |
| | ..... | 7 ..... | 144 ..... | Notch 7. |
| Phase 3 ..... | 0.025 ..... | 8 ..... | 576 ..... | Notch 8. |

[1] See paragraph (d) of this section for alternate pre-test provisions.
[2] Operate at normal idle for modes A and B if not equipped with multiple idle settings.

(f) Calculate your cycle-weighted brake-specific emission rates as follows:

(1) For each test phase j:

(i) Calculate emission rates ($E_{ij}$) for each pollutant i as the total mass emissions divided by the total time in the phase.

(ii) Calculate average power ($P_j$) as the total work divided by the total time in the phase.

(2) For each pollutant, calculate your cycle-weighted brake-specific emission rate using the following equation, where $w_j$ is the weighting factor for phase j:

$$E_{ij} = \frac{w_1 E_{i1} + w_2 E_{i2} + w_3 E_{i3}}{w_1 P_1 + w_2 P_2 + w_3 P_3}$$

**§ 1033.525 Smoke testing.**

This section describes the equipment and procedures for testing for smoke emissions when is required.

(a) This section specifies how to measure smoke emissions using a full-flow, open path light extinction smokemeter. A light extinction meter consists of a built-in light beam that traverses the exhaust smoke plume that issues from exhaust the duct. The light beam must be at right angles to the axis of the plume. Align the light beam to go through the plume along the hydraulic diameter (defined in 1065.1001) of the exhaust stack. Where it is difficult to align the beam to have a path length equal to the hydraulic diameter (such as a long narrow rectangular duct), you may align the beam to have a different path length and correct it to be equivalent to a path length equal to the hydraulic diameter. The light extinction meter must meet the requirements of paragraph (b) of this section and the following requirements:

(1) Use an incandescent light source with a color temperature range of 2800K to 3250K, or a light source with a spectral peak between 550 and 570 nanometers.

(2) Collimate the light beam to a nominal diameter of 3 centimeters and an angle of divergence within a 6 degree included angle.

(3) Use a photocell or photodiode light detector. If the light source is an incandescent lamp, use a detector that has a spectral response similar to the photopic curve of the human eye (a maximum response in the range of 550 to 570 nanometers, to less than four percent of that maximum response below 430 nanometers and above 680 nanometers).

(4) Attach a collimating tube to the detector with apertures equal to the beam diameter to restrict the viewing angle of the detector to within a 16 degree included angle.

(5) Amplify the detector signal corresponding to the amount of light.

(6) You may use an air curtain across the light source and detector window assemblies to minimize deposition of smoke particles on those surfaces, provided that it does not measurably affect the opacity of the plume.

(7) Minimize distance from the optical centerline to the exhaust outlet; in no case may it be more than 3.0 meters. The maximum allowable distance of unducted space upstream of the optical centerline is 0.5 meters. Center the full flow of the exhaust stream between the source and detector apertures (or windows and lenses) and on the axis of the light beam.

(8) You may use light extinction meters employing substantially identical measurement principles and producing substantially equivalent results, but which employ other electronic and optical techniques.

(b) All smokemeters must meet the following specifications:

(1) A full-scale deflection response time of 0.5 second or less.

(2) You may attenuate signal responses with frequencies higher than 10 Hz with a separate low-pass electronic filter with the following performance characteristics:

(i) Three decibel point: 10 Hz.

(ii) Insertion loss: 0.0 ± 0.5 dB.

(iii) Selectivity: 12 dB down at 40 Hz minimum.

(iv) Attenuation: 27 dB down at 40 Hz minimum.

(c) Perform the smoke test by continuously recording smokemeter response over the entire locomotive test cycle in percent opacity to within one percent resolution and also simultaneously record operator demand set point (*e.g.*, notch position). Compare the recorded opacities to the smoke standards applicable to your locomotive.

(d) You may use a partial flow sampling smokemeter if you correct for the path length of your exhaust plume. If you use a partial flow sampling meter, follow the instrument manufacturer's installation, calibration, operation, and maintenance procedures.

**§ 1033.530 Duty cycles and calculations.**

This section describes how to apply the duty cycle to measured emission rates to calculate cycle-weighted average emission rates.

(a) *Standard duty cycles and calculations.* Tables 1 and 2 of this section show the duty cycle to use to calculate cycle-weighted average emission rates for locomotives equipped with two idle settings, eight propulsion notches, and at least one dynamic brake notch and tested using the Locomotive Test Cycle. Use the appropriate weighting factors for your locomotive application and calculate cycle-weighted average emissions as specified in 40 CFR part 1065, subpart G.

TABLE 1 TO § 1033.530.—STANDARD DUTY CYCLE WEIGHTING FACTORS FOR CALCULATING EMISSION RATES FOR LOCOMOTIVES WITH MULTIPLE IDLE SETTINGS

| Notch setting | Test mode | Line-haul weighting factors | Line-haul weighting factors (no dynamic brake) | Switch weighting factors |
|---|---|---|---|---|
| Low Idle | A | 0.190 | 0.190 | 0.299 |
| Normal Idle | B | 0.190 | 0.315 | 0.299 |
| Dynamic Brake | C | 0.125 | (1) | 0.000 |
| Notch 1 | 1 | 0.065 | 0.065 | 0.124 |
| Notch 2 | 2 | 0.065 | 0.065 | 0.123 |
| Notch 3 | 3 | 0.052 | 0.052 | 0.058 |
| Notch 4 | 4 | 0.044 | 0.044 | 0.036 |
| Notch 5 | 5 | 0.038 | 0.038 | 0.036 |
| Notch 6 | 6 | 0.039 | 0.039 | 0.015 |
| Notch 7 | 7 | 0.030 | 0.030 | 0.002 |
| Notch 8 | 8 | 0.162 | 0.162 | 0.008 |

[1] Not applicable.

TABLE 2 TO § 1033.530.—STANDARD DUTY CYCLE WEIGHTING FACTORS FOR CALCULATING EMISSION RATES FOR LOCOMOTIVES WITH A SINGLE IDLE SETTING

| Notch setting | Test mode | Line-haul | Line-haul (no dynamic brake) | Switch |
|---|---|---|---|---|
| Normal Idle | A | 0.380 | 0.505 | 0.598 |
| Dynamic Brake | C | 0.125 | (1) | 0.000 |
| Notch 1 | 1 | 0.065 | 0.065 | 0.124 |
| Notch 2 | 2 | 0.065 | 0.065 | 0.123 |
| Notch 3 | 3 | 0.052 | 0.052 | 0.058 |
| Notch 4 | 4 | 0.044 | 0.044 | 0.036 |
| Notch 5 | 5 | 0.038 | 0.038 | 0.036 |
| Notch 6 | 6 | 0.039 | 0.039 | 0.015 |
| Notch 7 | 7 | 0.030 | 0.030 | 0.002 |
| Notch 8 | 8 | 0.162 | 0.162 | 0.008 |

[1] Not applicable.

(b) *Idle and dynamic brake notches.* The test procedures generally require you to measure emissions at two idle settings and one dynamic brake, as follows:

(1) If your locomotive is equipped with two idle settings and one or more dynamic brake settings, measure emissions at both idle settings and the worst case dynamic brake setting, and weight the emissions as specified in the applicable table of this section. Where it is not obvious which dynamic brake setting represents worst case, do one of the following:

(i) You may measure emissions and power at each dynamic brake point and average them together.

(ii) You may measure emissions and power at the dynamic brake point with the lowest power.

(2) If your locomotive is equipped with two idle settings and is not equipped with dynamic brake, use a normal idle weighting factor of 0.315 for the line-haul cycle. If your locomotive is equipped with only one idle setting and no dynamic brake, use an idle weighting factor of 0.505 for the line-haul cycle.

(c) *Nonstandard notches or no notches.* If your locomotive is equipped with more or less than 8 propulsion notches, recommend an alternate test cycle based on the in-use locomotive configuration. Unless you have data demonstrating that your locomotive will be operated differently from conventional locomotives, recommend weighting factors that are consistent with the power weightings of the specified duty cycle. For example, the average load factor for your recommended cycle (cycle-weighted power divided by rated power) should be equivalent to those of conventional locomotives. We may also allow the use of the standard power levels shown in Table 3 to this section for nonstandard locomotive testing subject to our prior approval. This paragraph (c) does not allow engines to be tested without consideration of the actual notches that will be used.

TABLE 3 TO § 1033.530.—STANDARD NOTCH POWER LEVELS EXPRESSED AS A PERCENTAGE OF RATED POWER

| | Percent |
|---|---|
| Normal Idle | 0.00 |
| Dynamic Brake | 0.00 |
| Notch 1 | 4.50 |
| Notch 2 | 11.50 |
| Notch 3 | 23.50 |
| Notch 4 | 35.00 |
| Notch 5 | 48.50 |
| Notch 6 | 64.00 |
| Notch 7 | 85.00 |
| Notch 8 | 100.00 |

(d) *Optional Ramped Modal Cycle Testing.* Tables 1 and 2 of § 1033.520 show the weighting factors to use to calculate cycle-weighted average emission rates for the applicable locomotive ramped modal cycle. Use the weighting factors for the ramped modal cycle for your locomotive application and calculate cycle-weighted average emissions as specified in 40 CFR part 1065, subpart G.

(e) *Automated Start-Stop.* For locomotive equipped with features that shut the engine off after prolonged periods of idle, multiply the measured idle mass emission rate over the idle portion of the applicable test cycles by a factor equal to one minus the estimated fraction reduction in idling time that will result in use from the shutdown feature. Do not apply this factor to the weighted idle power. Application of this adjustment is subject to our approval. This paragraph (e) does not apply if the locomotive is (or will be) covered by a separate certificates for idle control.

(f) *Multi-engine locomotives.* This paragraph (f) applies for locomotives using multiple engines where all engines are identical in all material respects. In cases where we allow engine dynamometer testing, you may test a single engine consistent with good engineering judgment, as long as you test it at the operating points at which the engines will operate when installed in the locomotive (excluding stopping and starting). Weigh the results to reflect the power demand/power-sharing of the in-use configuration for each notch setting.

(g) *Representative test cycles for freshly manufactured locomotives.* As specified in this paragraph (g), manufacturers may be required to use an alternate test cycle for freshly manufactured Tier 3 and later locomotives.

(1) If you determine that you are adding design features that will make the expected average in-use duty cycle for any of your freshly manufactured locomotive engine families significantly different from the otherwise applicable test cycle (including weighting factors), you must notify us and recommend an alternate test cycle that represents the expected average in-use duty cycle. You should also obtain preliminary approval before you begin collecting data to support an alternate test cycle. We will specify whether to use the default duty cycle, your recommended cycle, or a different cycle, depending on which cycle we believe best represents expected in-use operation.

(2) The provisions of this paragraph (g) apply differently for different types of locomotives, as follows:

(i) For Tier 4 and later line-haul locomotives, use the cycle required by (g)(1) of this section to show compliance with the line-haul cycle standards.

(ii) For Tier 3 and later switch locomotives, use the cycle required by (g)(1) of this section to show compliance with the switch cycle standards.

(iii) For Tier 3 line-haul locomotives, if we specify an alternate cycle, use it to show compliance with the line-haul cycle standards. If you include the locomotives in the ABT program of subpart H of this part, calculate line-haul cycle credits (positive or negative) using the alternate cycle and the line-haul cycle standards. Your locomotive is deemed to also generate an equal amount of switch cycle credits.

(3) For all locomotives certified using an alternate cycle, include a description of the cycle in the owners manual such that the locomotive can be remanufactured using the same cycle.

(4) For example, if your freshly manufactured line-haul locomotives are equipped with load control features that modify how the locomotive will operate when it is in a consist, and such features will cause the locomotives to operate differently from the otherwise applicable line-haul cycle, we may require you to certify using an alternate cycle.

(5) See paragraph (h) of this section for cycle-changing design features that also result in energy savings.

(h) *Calculation adjustments for energy-saving design features.* The provisions of this paragraph (h) apply for locomotives equipped with energy-saving locomotive design features. They do not apply for features that only improve the engine's brake-specific fuel consumption.

(1) Manufacturers/remanufacturers choosing to adjust emissions under this paragraph (h) must do all of the following for certification:

(i) Describe the energy-saving features in your application for certification.

(ii) Describe in your installation instruction and/or maintenance instructions all steps necessary to utilize the energy-saving features.

(2) If your design feature will also affect the locomotive's duty cycle, you must comply with the requirements of paragraph (g) of this section.

(3) Calculate energy the savings as described in this paragraph (h)(3).

(i) Estimate the expected mean in-use fuel consumption rate (on a BTU per ton-mile basis) with and without the energy saving design feature, consistent with the specifications of paragraph (h)(4) of this section. The energy savings is the ratio of fuel consumed from a locomotive operating with the new feature to fuel consumed from a locomotive operating without the feature under identical conditions. Include an estimate of the 80 percent confidence interval for your estimate of the mean, and other statistical parameters we specify.

(ii) Your estimate must be based on in-use operating data, consistent with good engineering judgment. Where we have previously certified your design feature under this paragraph (h), we may require you to update your analysis based on all new data that are available. You must obtain preliminary approval before you begin collecting operational data for this purpose.

(iii) We may allow you to consider the effects of your design feature separately for different route types, regions, or railroads. We may require that you certify these different locomotives in different engine families and may restrict their use to the specified applications.

(iv) Design your test plan so that the operation of the locomotives with and without is as similar as possible in all material aspects (other than the design feature being evaluated). Correct all data for any relevant differences, consistent with good engineering judgment.

(v) Do not include any brake-specific energy savings in your calculated values. If it is not possible to exclude such effects from your data gathering, you must correct for these effects, consistent with good engineering judgment.

(4) Calculate adjustment factors as described in this paragraph (h)(4). If the energy savings will apply broadly, calculate and apply the adjustment on a cycle-weighted basis. Otherwise, calculate and apply the adjustment separately for each notch. To apply the adjustment, multiply the emissions (either cycle-weighted or notch-specific, as applicable) by the adjustment. Use the lower bound of the 80 percent confidence interval of the estimate of the mean as your estimated energy savings rate. We may cap your energy savings rate for this paragraph (h)(4) at 80 percent of the estimate of the mean. Calculate the emission adjustment factors as:

AF = 1.000—(energy savings rate)

**§ 1033.535 Adjusting emission levels to account for infrequently regenerating aftertreatment devices.**

This section describes how to adjust emission results from locomotives using aftertreatment technology with infrequent regeneration events that occur during testing. See paragraph (e) of this section for how to adjust ramped modal testing. See paragraph (f) of this section for how to adjust discrete-mode testing. For this section, ''regeneration'' means an intended event during which emission levels change while the system restores aftertreatment performance. For example, hydrocarbon emissions may increase temporarily while oxidizing accumulated particulate matter in a trap. Also for this section, ''infrequent'' refers to regeneration events that are

expected to occur on average less than once per sample period.

(a) *Developing adjustment factors.* Develop an upward adjustment factor and a downward adjustment factor for each pollutant based on measured emission data and observed regeneration frequency. Adjustment factors should generally apply to an entire engine family, but you may develop separate adjustment factors for different configurations within an engine family. If you use adjustment factors for certification, you must identify the frequency factor, F, from paragraph (b) of this section in your application for certification and use the adjustment factors in all testing for that engine family. You may use carryover or carry-across data to establish adjustment factors for an engine family, as described in § 1033.235, consistent with good engineering judgment. All adjustment factors for regeneration are additive. Determine adjustment factors separately for different test segments as described in paragraphs (e) and (f) of this section. You may use either of the following different approaches for locomotives that use aftertreatment with infrequent regeneration events:

(1) You may disregard this section if you determine that regeneration does not significantly affect emission levels for an engine family (or configuration) or if it is not practical to identify when regeneration occurs. If you do not use adjustment factors under this section, your locomotives must meet emission standards for all testing, without regard to regeneration.

(2) You may ask us to approve an alternate methodology to account for regeneration events. We will generally limit approval to cases in which your locomotives use aftertreatment technology with extremely infrequent regeneration and you are unable to apply the provisions of this section.

(b) *Calculating average emission factors.* Calculate the average emission factor ($EF^A$) based on the following equation:

$$EF_A = (F)(EF_H) + (1\text{-}F)(EF_L)$$

Where:

F = the frequency of the regeneration event during normal in-use operation, expressed in terms of the fraction of equivalent tests during which the regeneration occurs. You may determine F from in-use operating data or running replicate tests. For example, if you observe that the regeneration occurs 125 times during 1000 MW-hrs of operation, and your locomotive typically accumulates 1 MW-hr per test, F would be $(125) \div (1000) \times (1) = 0.125$.

$EF_H$ = measured emissions from a test segment in which the regeneration occurs.

$EF_L$ = measured emissions from a test segment in which the regeneration does not occur.

(c) *Applying adjustment factors.* Apply adjustment factors based on whether regeneration occurs during the test run. You must be able to identify regeneration in a way that is readily apparent during all testing.

(1) If regeneration does not occur during a test segment, add an upward adjustment factor to the measured emission rate. Determine the upward adjustment factor (UAF) using the following equation:

$$UAF = EF_A - EF_L$$

(2) If regeneration occurs or starts to occur during a test segment, subtract a downward adjustment factor from the measured emission rate. Determine the downward adjustment factor (DAF) using the following equation:

$$DAF = EF_H - EF_A$$

(d) *Sample calculation.* If $EF_L$ is 0.10 g/bhp-hr, $EF_H$ is 0.50 g/ bhp-hr, and F is 0.10 (the regeneration occurs once for each ten tests), then:

$EF_A$ = (0.10)(0.50 g/ bhp-hr) + (1.00 − 0.10)(0.10 g/ bhp-hr) = 0.14 g/ bhp-hr.

UAF = 0.14 g/ bhp-hr − 0.10 g/ bhp-hr = 0.04 g/ bhp-hr.

DAF = 0.50 g/ bhp-hr − 0.14 g/ bhp-hr = 0.36 g/ bhp-hr

(e) *Ramped modal testing.* Develop separate adjustment factors for each test phase. If a regeneration has started but has not been completed when you reach the end of a test phase, use good engineering judgment to reduce your downward adjustments to be proportional to the emission impact that occurred in the test phases.

(f) *Discrete-mode testing.* Develop separate adjustment factors for each test mode. If a regeneration has started but has not been completed when you reach the end of the sampling time for a test mode extend the sampling period for that mode until the regeneration is completed.

## Subpart G—Special Compliance Provisions

### § 1033.601 General compliance provisions.

Locomotive manufacturer/ remanufacturers, as well as owners and operators of locomotives subject to the requirements of this part, and all other persons, must observe the provisions of this part, the requirements and prohibitions in 40 CFR part 1068, and the provisions of the Clean Air Act. The provisions of 40 CFR part 1068 apply for locomotives as specified in that part, except as otherwise specified in this section.

(a) *Meaning of manufacturer.* When used in 40 CFR part 1068, the term ''manufacturer'' means manufacturer and/or remanufacturer.

(b) *Engine rebuilding.* The provisions of 40 CFR 1068.120 do not apply when remanufacturing locomotives under a certificate of conformity issued under this part.

(c) *Exemptions.* (1) The exemption provisions of 40 CFR 1068.240 (*i.e.*, exemptions for replacement engines) do not apply for domestic or imported locomotives. (**Note:** You may introduce into commerce freshly manufactured replacement engines under this part, provided the locomotives into which they are installed are covered by a certificate of conformity.

(2) The exemption provisions of 40 CFR 1068.250 and 1068.255 (i.e., exemptions for hardship relief) do not apply for domestic or imported locomotives. See § 1033.620 for provisions related to hardship relief.

(3) The exemption provisions of 40 CFR 1068.260 (i.e., exemptions for delegated assembly) do not apply for domestic or imported locomotives, except as specified in § 1033.630.

(4) The provisions for importing engines and equipment under the identical configuration exemption of 40 CFR 1068.315(i) do not apply for locomotives.

(5) The provisions for importing engines and equipment under the ancient engine exemption of 40 CFR 1068.315(j) do not apply for locomotives.

(d) *SEAs, defect reporting, and recall.* The provisions of 40 CFR part 1068, subpart E (i.e., SEA provisions) do not apply for locomotives. Except as noted in this paragraph (d), the provisions of 40 CFR part 1068, subpart F, apply to certificate holders for locomotives as specified for manufacturers in that part.

(1) When there are multiple persons meeting the definition of manufacturer or remanufacturer, each person meeting the definition of manufacturer or remanufacturer must comply with the requirements of 40 CFR part 1068, subpart F, as needed so that the certificate holder can fulfill its obligations under those subparts.

(2) The defect investigation requirements of 40 CFR 1068.501(a)(5), (b)(1) and (b)(2) do not apply for locomotives. Instead, use good engineering judgment to investigate emission-related defects consistent with normal locomotive industry practice for investigating defects. You are not required to track parts shipments as indicators of possible defects.

(e) *Introduction into commerce.* The placement of a new locomotive or new

locomotive engine back into service following remanufacturing is a violation of 40 CFR 1068.101(a)(1), unless it has a valid certificate of conformity for its model year and the required label.

**§ 1033.610 Small railroad provisions.**

In general, the provisions of this part apply for all locomotives, including those owned by Class II and Class III railroads. This section describes how these provisions apply for railroads meeting the definition of ''small railroad'' in § 1033.901. (**Note:** The term ''small railroad'' excludes all Class II railroads and some Class III railroads, such as those owned by large parent companies.)

(a) Locomotives become subject to the provisions of this part when they become ''new'' as defined in § 1033.901. Under that definition, a locomotive is ''new'' when first assembled, and generally becomes ''new'' again when remanufactured. As an exception to this general concept, locomotives that are owned and operated by railroads meeting the definition of ''small railroad'' in § 1033.901 do not become ''new'' when remanufactured, unless they were previously certified to EPA emission standards. Certificate holders may require written confirmation from the owner/operator that the locomotive qualifies as a locomotive that is owned and operated by a small railroad. Such written confirmation to a certificate holder is deemed to also be a submission to EPA and is thus subject to the reporting requirements of 40 CFR 1068.101.

(b) The provisions of subpart I of this part apply to all owners and operators of locomotives subject to this part 1033. However, the regulations of that subpart specify some provisions that apply only for Class I freight railroads, and others that apply differently to Class I freight railroads and other railroads.

(c) We may exempt new locomotives that are owned or operated by small railroads from the prohibition against remanufacturing a locomotive without a certificate of conformity as specified in this paragraph (c). This exemption is only available in cases where no certified remanufacturing system is available for the locomotive. For example, it is possible that no remanufacturer will certify a system for very old locomotive models that comprise a tiny fraction of the fleet and that are remanufactured infrequently. We will grant the exemption in all cases in which no remanufacturing system has been certified for the applicable engine family and model year. We may also grant an exemption where we determine that a certified system is unavailable. We may consider the issue of excessive costs in determining the availability of certified systems. If we grant this exemption for a previously certified locomotive, you are required to return the locomotive to its previously certified configuration. Send your request for such exemptions to the Designated Compliance Officer.

(d) Non-Class I railroads that do not meet the definition of ''small railroad'' in § 1033.901 may ask that their remanufactured locomotives be excluded from the definition of ''new'' in § 1033.901 in cases where no certified remanufacturing system is available for the locomotive. We will grant the exemption in all cases in which no remanufacturing system has been certified for the applicable engine family and model year. If we grant this exemption for a previously certified locomotive, you are required to return the locomotive to its previously certified configuration. Send your request for such exemptions to the Designated Compliance Officer.

**§ 1033.615 Voluntarily subjecting locomotives to the standards of this part.**

The provisions of this section specify the cases in which an owner or manufacturer of a locomotive or similar piece of equipment can subject it to the standards and requirements of this part. Once the locomotive or equipment becomes subject to the locomotive standards and requirements of this part, it remains subject to the standards and requirements of this part for the remainder of its service life.

(a) *Equipment excluded from the definition of ''locomotive''.* (1) Manufacturers/remanufacturers of equipment that is excluded from the definition of ''locomotive'' because of its total power, but would otherwise meet the definition of locomotive may ask to have it considered to be a locomotive. To do this, submit an application for certification as specified in subpart C of this part, explaining why it should be considered to be a locomotive. If we approve your request, it will be deemed to be a locomotive for the remainder of its service life.

(2) In unusual circumstances, we may deem other equipment to be locomotives (at the request of the owner or manufacturer/remanufacturer) where such equipment does not conform completely to the definition of locomotive, but is functionally equivalent to a locomotive.

(b) *Locomotives excluded from the definition of ''new''.* Owners of remanufactured locomotives excluded from the definition of ''new'' in § 1033.901 under paragraph (2) of that definition may choose to upgrade their locomotives to subject their locomotives to the standards and requirements of this part by complying with the specifications of a certified remanufacturing system, including the labeling specifications of § 1033.135.

**§ 1033.620 Hardship provisions for manufacturers and remanufacturers.**

(a) If you qualify for the economic hardship provisions specified in 40 CFR 1068.245, we may approve a period of delayed compliance for up to one model year total.

(b) The provisions of this paragraph (b) are intended to address problems that could occur near the date on which more stringent emission standards become effective, such as the transition from the Tier 2 standards to the Tier 3 standards for line-haul locomotives on January 1, 2012.

(1) In appropriate extreme and unusual circumstances that are clearly outside the control of the manufacturer and could not have been avoided by the exercise of prudence, diligence, and due care, we may permit you, for a brief period, to introduce into commerce locomotives which do not comply with the applicable emission standards if all of the following conditions apply:

(i) You cannot reasonably manufacture the locomotives in such a manner that they would be able to comply with the applicable standards.

(ii) The manufacture of the locomotives was substantially completed prior to the applicability date of the standards from which you seek the relief. For example, you may not request relief for a locomotive that has been ordered, but for which you will not begin the assembly process prior to the applicability date of the standards. On the other hand, we would generally consider completion of the underframe weldment to be a substantial part of the manufacturing process.

(iii) Manufacture of the locomotives was previously scheduled to be completed at such a point in time that locomotives would have been included in the previous model year, such that they would have been subject to less stringent standards, and that such schedule was feasible under normal conditions.

(iv) You demonstrate that the locomotives comply with the less stringent standards that applied to the previous model year's production described in paragraph (b)(1)(iii) of this section, as prescribed by subpart C of this part (i.e., that the locomotives are identical to locomotives certified in the previous model year).

(v) You exercised prudent planning, were not able to avoid the violation, and have taken all reasonable steps to minimize the extent of the nonconformity.

(vi) We approve your request before you introduce the locomotives into commerce.

(2) You must notify us as soon as you become aware of the extreme or unusual circumstances.

(3)(i) Include locomotives for which we grant relief under this section in the engine family for which they were originally intended to be included.

(ii) Where the locomotives are to be included in an engine family that was certified to an FEL above the applicable standard, you must reserve credits to cover the locomotives covered by this allowance and include the required information for these locomotives in the end-of-year report required by subpart H of this part.

(c) In granting relief under this section, we may also set other conditions as appropriate, such as requiring payment of fees to negate an economic gain that such relief would otherwise provide.

**§ 1033.625 Special certification provisions for non-locomotive-specific engines.**

You may certify freshly manufactured or remanufactured locomotives using non-locomotive-specific engines (as defined in (1033.901) using the normal certification procedures of this part. Locomotives certified in that way are generally treated the same as other locomotives, except where specified otherwise. The provisions of this section provide for design certification to the locomotive standards in this part for locomotives using engines included in engine families certified under 40 CFR part 1039 (or part 89) in limited circumstances.

(a) Remanufactured or freshly manufactured switch locomotives powered by non-locomotive-specific engines may be certified by design without the test data required by 1033.235 if all of the following are true:

(1) Before being installed in the locomotive, the engines were covered by a certificate of conformity issued under 40 CFR Part 1039 (or part 89) that is effective for the calendar year in which the manufacture or remanufacture occurs. You may use engines certified during the previous year if it is subject to the same standards. You may not make any modifications to the engines unless we approve them.

(2) The engines were certified to standards that are numerically lower than the applicable locomotive standards of this part.

(3) More engines are reasonably projected to be sold and used under the certificate for non-locomotive use than for use in locomotives.

(4) The number of such locomotives certified under this section does not exceed 30 in any three-year period. We may waive this sales limit for locomotive models that have previously demonstrated compliance with the locomotive standards of § 1033.101 in-use.

(5) We approved the application as specified in paragraph (d) of this section.

(b) To certify your locomotives by design under this section, submit your application as specified in § 1033.205, except include the following instead of the locomotive test data otherwise required:

(1) A description of the engines to be used, including the name of the engine manufacturer and engine family identifier for the engines.

(2) A brief engineering analysis describing how the engine's emission controls will function when installed in the locomotive throughout the locomotive's useful life.

(3) The emission data submitted under 40 CFR part 1039 (or part 89).

(c) Locomotives certified under this section are subject to all of the same requirements of this part unless specified otherwise in this section. The engines used in such locomotives are not considered to be included in the otherwise applicable engines family of 40 CFR part 1039 (or part 89).

(d) We will approve or deny the application as specified in subpart C of this part. For example, we will deny your application for certification by design under this section in any case where we have evidence that your locomotives will not conform to the requirements of this part throughout their useful lives.

**§ 1033.630 Staged-assembly and delegated assembly exemptions.**

(a) *Staged assembly.* You may ask us to provide a temporary exemption to allow you to complete production of your engines and locomotives at different facilities, as long as you maintain control of the engines until they are in their certified configuration. We may require you to take specific steps to ensure that such locomotives are in their certified configuration before reaching the ultimate purchaser. You may request an exemption under this paragraph (a) in your application for certification, or in a separate submission. If you include your request in your application, your exemption is approved when we grant your certificate. Note that no exemption is needed to ship an engine that has been assembled in its certified configuration, is properly labeled, and will not require an aftertreatment device to be attached when installed in the locomotive.

(b) *Delegated assembly.* This paragraph (b) applies where the engine manufacturer/remanufacturer does not complete assembly of the locomotives and the engine is shipped after being manufactured or remanufactured (partially or completely). The provisions of this paragraph (b) apply differently depending on who holds the certificate of conformity and the state of the engine when it is shipped. You may request an exemption under this paragraph (b) in your application for certification, or in a separate submission. If you include your request in your application, your exemption is approved when we grant your certificate. A manufacturer/remanufacturer may request an exemption under 40 CFR 1068.260 instead of under this section.

(1) In cases where an engine has been assembled in its certified configuration, properly labeled, and will not require an aftertreatment device to be attached when installed in the locomotive, no exemption is needed to ship the engine. You do not need an exemption to ship engines without specific components if they are not emission-related components identified in Appendix I of 40 CFR part 1068.

(2) In cases where an engine has been properly labeled by the certificate holder and assembled in its certified configuration except that it does not yet have a required aftertreatment device, an exemption is required to ship the engine. You may ask for this exemption if you do all of the following:

(i) You note on the Engine Emission Control Information label that the locomotive must include the aftertreatment device to be covered by the certificate.

(ii) You make clear in your emission-related installation instructions that installation of the aftertreatment device is required for the locomotive to be covered by the certificate.

(3) In cases where an engine will be shipped to the certificate holder in an uncertified configuration, an exemption is required to ship the engine. You may ask for this exemption under 40 CFR 1068.262.

(c) *Other exemptions.* In unusual circumstances, you may ask us to provide an exemption for an assembly process that is not covered by the provisions of paragraphs (a) and (b) of this section. We will make the exemption conditional based on you complying with requirements that we

determine are necessary to ensure that the locomotives are assembled in their certified configuration before being placed (back) into service.

**§ 1033.640 Provisions for repowered and refurbished locomotives.**

(a) The provisions of this section apply for locomotives that are produced from an existing locomotive so that the new locomotive contains both previously used parts and parts that have never been used before.

(1) Repowered locomotives are used locomotives in which a freshly manufactured propulsion engine is installed. As described in this section, a repowered locomotive is deemed to be either remanufactured or freshly manufactured, depending on the total amount of unused parts on the locomotive. It may also be deemed to be a refurbished locomotive.

(2) Refurbished locomotives are locomotives that contain more unused parts than previously used parts. As described in this section, a locomotive containing more unused parts than previously used parts may be deemed to be either remanufactured or freshly manufactured, depending on the total amount of unused parts on the locomotive. Note that § 1033.101 defines refurbishment of a pre-1973 locomotive to be an upgrade of the locomotive.

(b) A single existing locomotive cannot be divided into parts and combined with new parts to create more than one remanufactured locomotive. However, any number of locomotives can be divided into parts and combined with new parts to create more than one remanufactured locomotive, provide the number of locomotives created (remanufactured and freshly manufactured) does not exceed the number of locomotives that were disassembled.

(c) You may determine the relative amount of previously used parts consistent with the specifications of the Federal Railroad Administration. Otherwise, determine the relative amount of previously used parts as follows:

(1) Identify the parts in the fully assembled locomotive that have been previously used and those that have never been used before.

(2) Weight the unused parts and previously used parts by the dollar value of the parts. For example, a single part valued at $1200 would count the same as six parts valued at $200 each. Group parts by system where possible (such as counting the engine as one part) if either all the parts in that system are used or all the parts in that system are unused. Calculate the used part values using dollar values from the same year as the new parts.

(3) Sum the values of the unused parts. Also sum the values of the previously used parts. The relative fraction of used parts is the total value of previously used parts divided by the combined value of the unused parts and previously used parts.

(c) If the weighted fraction of the locomotive that is comprised of previously used parts is greater than or equal to 25 percent, then the locomotive is considered to be a remanufactured locomotive and retains its original date of manufacture. Note, however, that if the weighted fraction of the locomotive that is comprised of previously used parts is less than 50 percent, then the locomotive is also considered to be a refurbished locomotive.

(d) If the weighted fraction of the locomotive that is comprised of previously used parts is less than 25 percent, then the locomotive is deemed to be a freshly manufactured locomotive and the date of original manufacture is the most recent date on which the locomotive was assembled using less than 25 percent previously used parts. For example:

(1) If you produce a new locomotive that includes a used frame, but all other parts are unused, then the locomotive would likely be considered to be a freshly manufactured locomotive because the value of the frame would likely be less than 25 percent of the total value of the locomotive. Its date of original manufacture would be the date on which you complete its assembly.

(2) If you produce a new locomotive by replacing the engine in a 1990 locomotive with a freshly manufactured engine, but all other parts are used, then the locomotive would likely be considered to be a remanufactured locomotive and its date of original manufacture is the date on which assembly was completed in 1990. (**Note:** such a locomotive would also be considered to be a repowered locomotive.)

(e) Locomotives containing used parts that are deemed to be freshly manufactured locomotives are subject to the same provisions as all other freshly manufactured locomotives. Other refurbished locomotives are subject to the same provisions as other remanufactured locomotives, with the following exceptions:

(1) *Switch locomotives.* (i) Prior to January 1, 2015, remanufactured Tier 0 switch locomotives that are deemed to be refurbished are subject to the Tier 0 line-haul cycle and switch cycle standards. Note that this differs from the requirements applicable to other Tier 0 switch locomotives, which are not subject to the Tier 0 line-haul cycle standards.

(ii) Beginning January 1, 2015, remanufactured Tier 3 and earlier switch locomotives that are deemed to be refurbished are subject to the Tier 3 switch standards.

(2) *Line-haul locomotives.* Remanufactured line-haul locomotives that are deemed to be refurbished are subject to the same standards as freshly manufactured line-haul locomotives, except that line-haul locomotives with rated power less than 3000 hp that are refurbished before January 1, 2015 are subject to the same standards as refurbished switch locomotives under paragraph (e)(1)(i) of this section. However, line-haul locomotives less than 3000 hp may not generate emission credits relative to the standards specified in paragraph (e)(1)(i) of this section.

(3) *Labels for switch and line-haul locomotives.* Remanufacturers that refurbish a locomotive must add a secondary locomotive label that includes the following:

(i) The label heading: ''REFURBISHED LOCOMOTIVE EMISSION CONTROL INFORMATION.''

(ii) The statement identifying when the locomotive was refurbished and what standards it is subject to, as follows: ''THIS LOCOMOTIVE WAS REFURBISHED IN [year of refurbishment] AND MUST COMPLY WITH THE TIER [applicable standard level] EACH TIME THAT IT IS REMANUFACTURED, EXCEPT AS ALLOWED BY 40 CFR 1033.750.''.

**§ 1033.645 Non-OEM component certification program.**

This section describes a voluntary program that allows you to get EPA approval of components you manufacture for use during remanufacturing.

(a) *Applicability.* This section applies only for components replaced during remanufacturing. It does not apply for other components that are replaced during a locomotive's useful life.

(1) The following components are eligible for approval under this section:

(i) Cylinder liners.

(ii) Pistons.

(iii) Piston rings.

(iv) Heads.

(v) Fuel injectors.

(vi) Turbochargers.

(vii) Aftercoolers and intercoolers.

(2) Catalysts and electronic controls are not eligible for approval under this section.

(3) We may determine that other types of components can be certified under

this section, consistent with good engineering judgment.

(b) *Approval.* To obtain approval, submit your request to the Designated Compliance Officer.

(1) Include all of the following in your request:

(i) A description of the component(s) for which you are requesting approval.

(ii) A list of all engine/locomotive models and engine families for which your component would be used. You may exclude models that are not subject to our standards or will otherwise not be remanufactured under a certificate of conformity.

(iii) A copy of the maintenance instructions for engines using your component. You may reference the other certificate holder's maintenance instructions in your instructions. For example, your instructions may specify to follow the other certificate holder's instructions in general, but list one or more exceptions to address the specific maintenance needs of your component.

(iv) An engineering analysis (including test data in some cases) demonstrating to us that your component will not cause emissions to increase. The analysis must address both low-hour and end-of-useful life emissions. The amount of information required for this analysis is less than is required to obtain a certificate of conformity under subpart C of this part and will vary depending on the type of component being certified.

(v) The following statement signed by an authorized representative of your company: We submit this request under 40 CFR 1033.645. All the information in this report is true and accurate to the best of my knowledge. I know of the penalties for violating the Clean Air Act and the regulations. (Authorized Company Representative)

(2) If we determine that there is reasonable technical basis to believe that your component is sufficiently equivalent that it will not increase emissions, we will approve your request and you will be a certificate holder for your components with respect to actual emissions performance for all locomotives that use those components (in accordance with this section).

(c) *Liability.* Being a certificate holder under this section means that if in-use testing indicates that a certified locomotive using one or more of your approved components does not comply with an applicable emission standard, we will presume that you and other certificate holders are liable for the noncompliance. However, we will not hold you liable in cases where you convince us that your components did not cause the noncompliance. Conversely, we will not hold other certificate holders liable for noncompliance caused solely by your components. You are also subject to the warranty and defect reporting requirements of this part for your certified components. Other requirements of this part apply as specified in § 1033.1.

(d) *In-use testing.* Locomotives containing your components must be tested according to the provisions of this paragraph (d).

(1) Except as specified in paragraph (d)(5) of this section, you must test at least one locomotive if 250 locomotives use your component under this section. You must test one additional locomotive for the next additional 500 locomotives that use your component under this section. After that, we may require you to test one additional locomotive for each additional 1000 locomotives that use your component under this section. These numbers apply across model years. For example, if your component is used in 125 remanufactures per year under this section, you must test one of the first 250 locomotives, one of the next 500 locomotives, and up to one every eight years after that. Do not count locomotives that use your components but are not covered by this section.

(2) Except for the first locomotive you test for a specific component under this section, locomotives tested under this paragraph (d) must be past the half-way point of the useful life in terms of MW-hrs. For the first locomotive you test, select a locomotive that has operated between 25 and 50 percent of its useful life.

(3) Unless we approve a different schedule, you must complete testing and report the results to us within 180 days of the earliest point at which you could complete the testing based on the hours of operation accumulated by the locomotives. For example, if 250 or more locomotives use your part under this section, and the first of these to reach 25 percent of its useful life does so on March 1st of a given year, you must complete testing of one of the first 250 locomotives and report to us by August 28th of that year.

(4) Unless we approve different test procedures, you must test the locomotive according to the procedures specified in subpart F of this part.

(5) If any locomotives fail to meet all standards, we may require you to test one additional locomotive for each locomotive that fails. You may choose to accept that your part is causing an emission problem rather than continuing testing. You may also test additional locomotives at any time. We will consider failure rates, average emission levels and the existence of any defects among other factors in determining whether to pursue remedial action. We may order a recall pursuant to 40 CFR part 1068 before you complete testing additional locomotives.

(6) You may ask us to allow you to rely on testing performed by others instead of requiring you to perform testing. For example, if a railroad tests a locomotive with your component as part of its testing under § 1033.810, you may ask to submit those test data as fulfillment of your test obligations under this paragraph (d). If a given test locomotive uses different components certified under this section that were manufactured by different manufacturers (such as rings from one manufacturer and cylinder liners from another manufacturer), a single test of it may be counted towards both manufacturers' test obligations. In unusual circumstances, you may also ask us to grant you hardship relief from the testing requirements of this paragraph (d). In determining whether to grant you relief, we will consider all relevant factors including the extent of the financial hardship to your company and whether the test data are available from other sources, such as testing performed by a railroad.

(e) Components certified under this section may be used when remanufacturing Category 2 engines under 40 CFR part 1042.

### § 1033.650 Incidental use exemption for Canadian and Mexican locomotives.

You may ask us to exempt from the requirements and prohibitions of this part locomotives that are operated primarily outside of the United States and that enter the United States temporarily from Canada or Mexico. We will approve this exemption only where we determine that the locomotive's operation within the United States will not be extensive and will be incidental to its primary operation. For example, we would generally exempt locomotives that will not operate more than 25 miles from the border and will operate in the United States less than 5 percent of their operating time. For existing operations, you must request this exemption before January 1, 2011. In your request, identify the locomotives for which you are requesting an exemption, and describe their projected use in the United States. We may grant the exemption broadly or limit the exemption to specific locomotives and/or specific geographic areas. However, we will typically approve exemptions for specific rail facilities rather than specific locomotives. In unusual circumstances, such as cases in which

new rail facilities are created, we may approve requests submitted after January 1, 2011.

**§ 1033.655 Special provisions for certain Tier 0/Tier 1 locomotives.**

(a) The provisions of this section apply only for the following locomotives (and locomotives in the same engine families as these locomotives):

(1) Locomotives listed in Table 1 of this section originally manufactured 1986–1994 by General Electric Company that have never been equipped with separate loop aftercooling. The section also applies for the equivalent passenger locomotives.

TABLE 1 TO § 1033.655

| | |
|---|---|
| 8–40C | P32ACDM |
| 8–40B | P42DC |
| 8–32B | 8–40BPH |
| 8–40CW | P40DC |
| 8–40BW | 8–32BWH |
| 8–40CM | C39–8 |
| 8–41CW | B39–8E |
| 8–44CW | |

(2) SD70MAC and SD70IAC locomotives originally manufactured 1996–2000 by EMD.

(b) Any certifying remanufacturer may request relief for the locomotives covered by this section.

(c) You may ask us to allow these locomotives to exceed otherwise applicable line-haul cycle $NO_X$ standard for high ambient temperatures and/or altitude because of limitations of the cooling system. However, the $NO_X$ emissions may exceed the otherwise applicable standard only to the extent necessary. Relief is limited to the following conditions:

(1) For General Electric locomotives, you may ask for relief for ambient temperatures above 23 °C and/or barometric pressure below 97.5 kPa (28.8 in. Hg). $NO_X$ emissions may not exceed 9.5 g/bhp-hr over the line-haul cycle for any temperatures up to 105 °F and any altitude up to 7000 feet above sea level.

(2) For EMD locomotives, you may ask for relief for ambient temperatures above 30 °C and/or barometric pressure below 97.5 kPa (28.8 in. Hg). $NO_X$ emissions may not exceed 8.0 g/bhp-hr over the line-haul cycle for any temperatures up to 105 °F and any altitude up to 7000 feet above sea level.

(d) All other standards and requirements in this part apply as specified.

(e) To request this relief, submit to the Designated Compliance Officer along with your application for certification an engineering analysis showing how your emission controls operate for the following conditions:

(1) Temperatures 23–40 °C at any altitude up to 7000 feet above sea level.

(2) Altitudes 1000–7000 feet above sea level for any temperature from 15–40 °C.

## Subpart H—Averaging, Banking, and Trading for Certification

**§ 1033.701 General provisions.**

(a) You may average, bank, and trade (ABT) emission credits for purposes of certification as described in this subpart to show compliance with the standards of this part. Participation in this program is voluntary.

(b) Section 1033.740 restricts the use of emission credits to certain averaging sets.

(c) The definitions of Subpart J of this part apply to this subpart. The following definitions also apply:

(1) *Actual emission credits* means emission credits you have generated that we have verified by reviewing your final report.

(2) *Applicable emission standard* means an emission standard that is specified in subpart B of this part. Note that for other subparts, ''applicable emission standard'' is defined to also include FELs.

(3) *Averaging set* means a set of locomotives in which emission credits may be exchanged only with other locomotives in the same averaging set.

(4) *Broker* means any entity that facilitates a trade of emission credits between a buyer and seller.

(5) *Buyer* means the entity that receives emission credits as a result of a trade.

(6) *Reserved emission credits* means emission credits you have generated that we have not yet verified by reviewing your final report.

(7) *Seller* means the entity that provides emission credits during a trade.

(8) *Trade* means to exchange emission credits, either as a buyer or seller.

(9) *Transfer* means to convey control of credits generated for an individual locomotive to the purchaser, owner, or operator of the locomotive at the time of manufacture or remanufacture; or to convey control of previously generated credits from the purchaser, owner, or operator of an individual locomotive to the manufacturer/remanufacturer at the time of manufacture/remanufacture.

(d) You may not use emission credits generated under this subpart to offset any emissions that exceed an FEL or standard. This applies for all testing, including certification testing, in-use testing, selective enforcement audits, and other production-line testing. However, if emissions from a locomotive exceed an FEL or standard (for example, during a selective enforcement audit), you may use emission credits to recertify the engine family with a higher FEL that applies only to future production.

(e) Engine families that use emission credits for one or more pollutants may not generate positive emission credits for another pollutant.

(f) Emission credits may be used in the model year they are generated or in future model years. Emission credits may not be used for past model years.

(g) You may increase or decrease an FEL during the model year by amending your application for certification under § 1033.225. The new FEL may apply only to locomotives you have not already introduced into commerce. Each locomotive's emission control information label must include the applicable FELs. You must conduct production line testing to verify that the emission levels are achieved.

(h) Credits may be generated by any certifying manufacturer/remanufacturer and may be held by any of the following entities:

(1) Locomotive or engine manufacturers.

(2) Locomotive or engine remanufacturers.

(3) Locomotive owners.

(4) Locomotive operators.

(5) Other entities after notification to EPA.

(i) All locomotives that are certified to an FEL that is different from the emission standard that would otherwise apply to the locomotives are required to comply with that FEL for the remainder of their service lives, except as allowed by § 1033.750.

(1) Manufacturers must notify the purchaser of any locomotive that is certified to an FEL that is different from the emission standard that would otherwise apply that the locomotive is required to comply with that FEL for the remainder of its service life.

(2) Remanufacturers must notify the owner of any locomotive or locomotive engine that is certified to an FEL that is different from the emission standard that would otherwise apply that the locomotive (or the locomotive in which the engine is used) is required to comply with that FEL for the remainder of its service life.

(j) The FEL to which the locomotive is certified must be included on the locomotive label required in § 1033.135. This label must include the notification specified in paragraph (i) of this section.

**§ 1033.705 Calculating emission credits.**

The provisions of this section apply separately for calculating emission credits for $NO_X$ or PM.

(a) Calculate positive emission credits for an engine family that has an FEL below the otherwise applicable emission standard. Calculate negative emission credits for an engine family that has an FEL above the otherwise applicable emission standard. Do not round until the end of year report.

(b) For each participating engine family, calculate positive or negative emission credits relative to the otherwise applicable emission standard. For the end of year report, round calculated emission credits to the nearest one hundredth of a megagram (0.01 Mg). Round your end of year emission credit balance to the nearest megagram (Mg). Use consistent units throughout the calculation. When useful life is expressed in terms of megawatt-hrs, calculate credits for each engine family from the following equation:

$$\text{Emission credits} = (\text{Std} - \text{FEL}) \times (1.341) \times (\text{UL}) \times (\text{Production}) \times (F_p) \times (10^{-3}\ \text{kW-Mg/MW-g}).$$

Where:

Std = the applicable $NO_X$ or PM emission standard in g/bhp-hr (except that Std = previous FEL in g/bhp-hr for locomotives that were certified under this part to an FEL other than the standard during the previous useful life).

FEL = the family emission limit for the engine family in g/bhp-hr.

UL = the sales-weighted average useful life in megawatt-hours (or the subset of the engine family for which credits are being calculated), as specified in the application for certification.

Production = the number of locomotives participating in the averaging, banking, and trading program within the given engine family during the calendar year (or the number of locomotives in the subset of the engine family for which credits are being calculated). Quarterly production projections are used for initial certification. Actual applicable production/sales volumes are used for end-of-year compliance determination.

$F_p$ = the proration factor as determined in paragraph (d) of this section.

(c) When useful life is expressed in terms of miles, calculate the useful life in terms of megawatt-hours (UL) by dividing the useful life in miles by 100,000, and multiplying by the sales-weighted average rated power of the engine family. For example, if your useful life is 800,000 miles for a family with an average rated power of 3,500 hp, then your equivalent MW-hr useful life would be 28,000 MW-hrs. Credits are calculated using this UL value in the equations of paragraph (b) of this section.

(d) The proration factor is an estimate of the fraction of a locomotive's service life that remains as a function of age. The proration factor is 1.00 for freshly manufactured locomotives.

(1) The locomotive's age is the length of time in years from the date of original manufacture to the date at which the remanufacture (for which credits are being calculated) is completed, rounded to the next higher year.

(2) The proration factors for line-haul locomotives ages 1 through 20 are specified in Table 1 to this section. For line-haul locomotives more than 20 years old, use the proration factor for 20 year old locomotives. The proration factors for switch locomotives ages 1 through 40 are specified in Table 2 to this section. For switch locomotives more than 40 years old, use the proration factor for 40 year old locomotives.

(3) For repower engines, the proration factor is based on the age of the locomotive chassis, not the age of the engine, except for remanufactured locomotives that qualify as refurbished. The minimum proration factor for remanufactured locomotives that meet the definition of refurbished but not freshly manufactured is 0.60. (**Note:** The proration factor is 1.00 for all locomotives that meet the definition of freshly manufactured.)

TABLE 1 TO § 1033.705.—PRORATION FACTORS FOR LINE-HAUL LOCOMOTIVES

| Locomotive age (years) | Proration factor ($F_p$) |
|---|---|
| 1 | 0.96 |
| 2 | 0.92 |
| 3 | 0.88 |
| 4 | 0.84 |
| 5 | 0.81 |
| 6 | 0.77 |
| 7 | 0.73 |
| 8 | 0.69 |
| 9 | 0.65 |
| 10 | 0.61 |
| 11 | 0.57 |
| 12 | 0.54 |
| 13 | 0.50 |
| 14 | 0.47 |
| 15 | 0.43 |
| 16 | 0.40 |
| 17 | 0.36 |
| 18 | 0.33 |
| 19 | 0.30 |
| 20 | 0.27 |

TABLE 2 TO § 1033.705.—PRORATION FACTORS FOR SWITCH LOCOMOTIVES

| Locomotive age (years) | Proration factor ($F_p$) |
|---|---|
| 1 | 0.98 |
| 2 | 0.96 |
| 3 | 0.94 |
| 4 | 0.92 |
| 5 | 0.90 |
| 6 | 0.88 |
| 7 | 0.86 |
| 8 | 0.84 |
| 9 | 0.82 |
| 10 | 0.80 |
| 11 | 0.78 |
| 12 | 0.76 |
| 13 | 0.74 |
| 14 | 0.72 |
| 15 | 0.70 |
| 16 | 0.68 |
| 17 | 0.66 |
| 18 | 0.64 |
| 19 | 0.62 |
| 20 | 0.60 |
| 21 | 0.58 |
| 22 | 0.56 |
| 23 | 0.54 |
| 24 | 0.52 |
| 25 | 0.50 |
| 26 | 0.48 |
| 27 | 0.46 |
| 28 | 0.44 |
| 29 | 0.42 |
| 30 | 0.40 |
| 31 | 0.38 |
| 32 | 0.36 |
| 33 | 0.34 |
| 34 | 0.32 |
| 35 | 0.30 |
| 36 | 0.28 |
| 37 | 0.26 |
| 38 | 0.24 |
| 39 | 0.22 |
| 40 | 0.20 |

(e) In your application for certification, base your showing of compliance on projected production volumes for locomotives that will be placed into service in the United States. As described in § 1033.730, compliance with the requirements of this subpart is determined at the end of the model year based on actual production volumes for locomotives that will be placed into service in the United States. Do not include any of the following locomotives to calculate emission credits:

(1) Locomotives permanently exempted under subpart G of this part or under 40 CFR part 1068.

(2) Exported locomotives. You may ask to include locomotives sold to Mexican or Canadian railroads if they will likely operate within the United States and you include all such locomotives (both credit using and credit generating locomotives).

(3) Locomotives not subject to the requirements of this part, such as those excluded under § 1033.5.

(4) Any other locomotives, where we indicate elsewhere in this part 1033 that they are not to be included in the calculations of this subpart.

**§ 1033.710 Averaging emission credits.**

(a) Averaging is the exchange of emission credits among your engine families. You may average emission credits only as allowed by § 1033.740.

(b) You may certify one or more engine families to an FEL above the applicable emission standard, subject to the FEL caps and other provisions in subpart B of this part, if you show in your application for certification that your projected balance of all emission-credit transactions in that model year is greater than or equal to zero.

(c) If you certify an engine family to an FEL that exceeds the otherwise applicable emission standard, you must obtain enough emission credits to offset the engine family's deficit by the due date for the final report required in § 1033.730. The emission credits used to address the deficit may come from your other engine families that generate emission credits in the same model year, from emission credits you have banked, or from emission credits you obtain through trading or by transfer.

**§ 1033.715 Banking emission credits.**

(a) Banking is the retention of emission credits by the manufacturer/remanufacturer generating the emission credits (or owner/operator, in the case of transferred credits) for use in averaging, trading, or transferring in future model years. You may use banked emission credits only as allowed by § 1033.740.

(b) You may use banked emission credits from the previous model year for averaging, trading, or transferring before we verify them, but we may revoke these emission credits if we are unable to verify them after reviewing your reports or auditing your records.

(c) Reserved credits become actual emission credits only when we verify them after reviewing your final report.

**§ 1033.720 Trading emission credits.**

(a) Trading is the exchange of emission credits between certificate holders. You may use traded emission credits for averaging, banking, or further trading transactions. Traded emission credits may be used only as allowed by § 1033.740.

(b) You may trade actual emission credits as described in this subpart. You may also trade reserved emission credits, but we may revoke these emission credits based on our review of your records or reports or those of the company with which you traded emission credits.

(c) If a negative emission credit balance results from a transaction, both the buyer and seller are liable, except in cases we deem to involve fraud. See § 1033.255(e) for cases involving fraud. We may void the certificates of all engine families participating in a trade that results in a manufacturer/remanufacturer having a negative balance of emission credits. See § 1033.745.

**§ 1033.722 Transferring emission credits.**

(a) Credit transfer is the conveying of control over credits, either:

(1) From a certifying manufacturer/remanufacturer to an owner/operator.

(2) From an owner/operator to a certifying manufacturer/remanufacturer.

(b) Transferred credits can be:

(1) Used by a certifying manufacturer/remanufacturer in averaging.

(2) Transferred again within the model year.

(3) Reserved for later banking. Transferred credits may not be traded unless they have been previously banked.

(c) Owners/operators participating in credit transfers must submit the reports specified in § 1033.730.

**§ 1033.725 Requirements for your application for certification.**

(a) You must declare in your application for certification your intent to use the provisions of this subpart for each engine family that will be certified using the ABT program. You must also declare the FELs you select for the engine family for each pollutant for which you are using the ABT program. Your FELs must comply with the specifications of subpart B of this part, including the FEL caps. FELs must be expressed to the same number of decimal places as the applicable emission standards.

(b) Include the following in your application for certification:

(1) A statement that, to the best of your belief, you will not have a negative balance of emission credits for any averaging set when all emission credits are calculated at the end of the year.

(2) Detailed calculations of projected emission credits (positive or negative) based on projected production volumes.

**§ 1033.730 ABT reports.**

(a) If any of your engine families are certified using the ABT provisions of this subpart, you must send an end-of-year report within 90 days after the end of the model year and a final report within 270 days after the end of the model year. We may waive the requirement to send the end-of year report, as long as you send the final report on time.

(b) Your end-of-year and final reports must include the following information for each engine family participating in the ABT program:

(1) Engine family designation.

(2) The emission standards that would otherwise apply to the engine family.

(3) The FEL for each pollutant. If you changed an FEL during the model year, identify each FEL you used and calculate the positive or negative emission credits under each FEL. Also, describe how the applicable FEL can be identified for each locomotive you produced. For example, you might keep a list of locomotive identification numbers that correspond with certain FEL values.

(4) The projected and actual production volumes for the model year that will be placed into service in the United States as described in § 1033.705. If you changed an FEL during the model year, identify the actual production volume associated with each FEL.

(5) Rated power for each locomotive configuration, and the sales-weighted average locomotive power for the engine family.

(6) Useful life.

(7) Calculated positive or negative emission credits for the whole engine family. Identify any emission credits that you traded or transferred, as described in paragraph (d)(1) or (e) of this section.

(c) Your end-of-year and final reports must include the following additional information:

(1) Show that your net balance of emission credits from all your engine families in each averaging set in the applicable model year is not negative.

(2) State whether you will retain any emission credits for banking.

(3) State that the report's contents are accurate.

(d) If you trade emission credits, you must send us a report within 90 days after the transaction, as follows:

(1) As the seller, you must include the following information in your report:

(i) The corporate names of the buyer and any brokers.

(ii) A copy of any contracts related to the trade.

(iii) The engine families that generated emission credits for the trade, including the number of emission credits from each family.

(2) As the buyer, you must include the following information in your report:

(i) The corporate names of the seller and any brokers.

(ii) A copy of any contracts related to the trade.

(iii) How you intend to use the emission credits, including the number of emission credits you intend to apply to each engine family (if known).

(e) If you transfer emission credits, you must send us a report within 90 days after the first transfer to an owner/operator, as follows:

(1) Include the following information:

(i) The corporate names of the owner/operator receiving the credits.

(ii) A copy of any contracts related to the trade.

(iii) The serial numbers and engine families for the locomotive that generated the transferred emission credits and the number of emission credits from each family.

(2) The requirements of this paragraph (e) apply separately for each owner/operator.

(3) We may require you to submit additional 90-day reports under this paragraph (e).

(f) Send your reports electronically to the Designated Compliance Officer using an approved information format. If you want to use a different format, send us a written request with justification for a waiver.

(g) Correct errors in your end-of-year report or final report as follows:

(1) You may correct any errors in your end-of-year report when you prepare the final report, as long as you send us the final report by the time it is due.

(2) If you or we determine within 270 days after the end of the model year that errors mistakenly decreased your balance of emission credits, you may correct the errors and recalculate the balance of emission credits. You may not make these corrections for errors that are determined more than 270 days after the end of the model year. If you report a negative balance of emission credits, we may disallow corrections under this paragraph (g)(2).

(3) If you or we determine anytime that errors mistakenly increased your balance of emission credits, you must correct the errors and recalculate the balance of emission credits.

(h) We may modify these requirements for owners/operators required to submit reports because of their involvement in credit transferring.

### § 1033.735 Required records.

(a) You must organize and maintain your records as described in this section. We may review your records at any time.

(b) Keep the records required by this section for eight years after the due date for the end-of-year report. You may not use emission credits on any engines if you do not keep all the records required under this section. You must therefore keep these records to continue to bank valid credits. Store these records in any format and on any media, as long as you can promptly send us organized, written records in English if we ask for them. You must keep these records readily available. We may review them at any time.

(c) Keep a copy of the reports we require in § 1033.730.

(d) Keep the following additional records for each locomotive you produce that generates or uses emission credits under the ABT program:

(1) Engine family designation.

(2) Locomotive identification number. You may identify these numbers as a range.

(3) FEL. If you change the FEL after the start of production, identify the date that you started using the new FEL and give the engine identification number for the first engine covered by the new FEL.

(4) Rated power and useful life.

(5) Purchaser and destination for freshly manufactured locomotives; or owner for remanufactured locomotives.

(e) We may require you to keep additional records or to send us relevant information not required by this section, as allowed under the Clean Air Act.

### § 1033.740 Credit restrictions.

Use of emission credits generated under this part 1033 or 40 CFR part 92 is restricted depending on the standards against which they were generated.

(a) *Credits from 40 CFR part 92*. $NO_X$ and PM credits generated under 40 CFR part 92 may be used under this part in the same manner as $NO_X$ and PM credits generated under this part.

(b) *General cycle restriction*. Locomotives subject to both switch cycle standards and line-haul cycle standards (such as Tier 2 locomotives) may generate both switch and line-haul credits. Except as specified in paragraph (c) of this section, such credits may only be used to show compliance with standards for the same cycle for which they were generated. For example, a Tier 2 locomotive that is certified to a switch cycle $NO_X$ FEL below the applicable switch cycle standard and a line-haul cycle $NO_X$ FEL below the applicable line-haul cycle standard may generate switch cycle $NO_X$ credits for use in complying with switch cycle $NO_X$ standards and a line-haul cycle $NO_X$ credits for use in complying with line-haul cycle $NO_X$ standards.

(c) *Single cycle locomotives*. As specified in § 1033.101, Tier 0 switch locomotives, Tier 3 and later switch locomotives, and Tier 4 and later line-haul locomotives are not subject to both switch cycle and line-haul cycle standards.

(1) When using credits generated by locomotives covered by paragraph (b) of this section for single cycle locomotives covered by this paragraph (c), you must use both switch and line-haul credits as described in this paragraph (c)(1).

(i) For locomotives subject only to switch cycle standards, calculate the negative switch credits for the credit using locomotive as specified in § 1033.705. Such locomotives also generate an equal number of negative line-haul cycle credits (in Mg).

(ii) For locomotives subject only to line-haul cycle standards, calculate the negative line-haul credits for the credit using locomotive as specified in § 1033.705. Such locomotives also generate an equal number of negative switch cycle credits (in Mg).

(2) Credits generated by Tier 0, Tier 3, or Tier 4 switch locomotives may be used to show compliance with any switch cycle or line-haul cycle standards.

(3) Credits generated by any line-haul locomotives may not be used by Tier 3 or later switch locomotives.

(d) *Tier 4 credit use*. The number of Tier 4 locomotives that can be certified using credits in any year may not exceed 50 percent of the total number of Tier 4 locomotives you produce in that year for U.S. sales.

(e) *Other restrictions*. Other sections of this part may specify additional restrictions for using emission credits under certain special provisions.

### § 1033.745 Compliance with the provisions of this subpart.

The provisions of this section apply to certificate holders.

(a) For each engine family participating in the ABT program, the certificate of conformity is conditional upon full compliance with the provisions of this subpart during and after the model year. You are responsible to establish to our satisfaction that you fully comply with applicable requirements. We may void the certificate of conformity for an engine family if you fail to comply with any provisions of this subpart.

(b) You may certify your engine family to an FEL above an applicable emission standard based on a projection that you will have enough emission credits to offset the deficit for the engine family. However, we may void the certificate of conformity if you cannot show in your final report that you have enough actual emission credits to offset a deficit for any pollutant in an engine family.

(c) We may void the certificate of conformity for an engine family if you fail to keep records, send reports, or give us information we request.

(d) You may ask for a hearing if we void your certificate under this section (see § 1033.920).

**§ 1033.750 Changing a locomotive's FEL at remanufacture.**

Locomotives are generally required to be certified to the previously applicable emission standard or FEL when remanufactured. This section describes provisions that allow a remanufactured locomotive to be certified to a different FEL (higher or lower).

(a) A remanufacturer may choose to certify a remanufacturing system to change the FEL of a locomotive from a previously applicable FEL or standard. Any locomotives remanufactured using that system are required to comply with the revised FEL for the remainder of their service lives, unless it is changed again under this section during a later remanufacture. Remanufacturers changing an FEL must notify the owner of the locomotive that it is required to comply with that FEL for the remainder of its service life.

(b) Calculate the credits needed or generated as specified in § 1033.705, except as specified in this paragraph. If the locomotive was previously certified to an FEL for the pollutant, use the previously applicable FEL as the standard.

## Subpart I—Requirements for Owners and Operators

**§ 1033.801 Applicability.**

The requirements of this subpart are applicable to railroads and all other owners and operators of locomotives subject to the provisions of this part, except as otherwise specified. The prohibitions related to maintenance in § 1033.815 also applies to anyone performing maintenance on a locomotive subject to the provisions of this part.

**§ 1033.805 Remanufacturing requirements.**

(a) See the definition of ''remanufacture'' in § 1033.901 to determine if you are remanufacturing your locomotive or engine. (**Note:** Replacing power assemblies one at a time may qualify as remanufacturing, depending on the interval between replacement.)

(b) See the definition of ''new'' in § 1033.901 to determine if remanufacturing your locomotive makes it subject to the requirements of this part. If the locomotive is considered to be new, it is subject to the certification requirements of this part, unless it is exempt under subpart G of this part. The standards to which your locomotive is subject will depend on factors such as the following:

(1) Its date of original manufacture.

(2) The FEL to which it was previously certified, which is listed on the ''Locomotive Emission Control Information'' label.

(3) Its power rating (whether it is above or below 2300 hp).

(4) The calendar year in which it is being remanufactured.

(c) You may comply with the certification requirements of this part for your remanufactured locomotive by either obtaining your own certificate of conformity as specified in subpart C of this part or by having a certifying remanufacturer include your locomotive under its certificate of conformity. In either case, your remanufactured locomotive must be covered by a certificate before it is reintroduced into service.

(d) If you do not obtain your own certificate of conformity from EPA, contact a certifying remanufacturer to have your locomotive included under its certificate of conformity. Confirm with the certificate holder that your locomotive's model, date of original manufacture, previous FEL, and power rating allow it to be covered by the certificate. You must do all of the following:

(1) Comply with the certificate holder's emission-related installation instructions, which should include the following:

(i) A description of how to assemble and adjust the locomotive so that it will operate according to design specifications in the certificate. See paragraph (e) of this section for requirements related to the parts you must use.

(ii) Instructions to remove the Engine Emission Control Information label and replace it with the certificate holder's new label. **Note:** In most cases, you must not remove the Locomotive Emission Control Information label.

(2) Provide to the certificate holder the information it identifies as necessary to comply with the requirements of this part. For example, the certificate holder may require you to provide the information specified by § 1033.735.

(e) For parts unrelated to emissions and emission-related parts not addressed by the certificate holder in the emission-related installation instructions, you may use parts from any source. For emission-related parts listed by the certificate holder in the emission-related installation instructions, you must either use the specified parts or parts certified under § 1033.645 for remanufacturing. If you believe that the certificate holder has included as emission-related parts, parts that are actually unrelated to emissions, you may ask us to exclude such parts from the emission-related installation instructions. **Note:** This paragraph (e) does not apply with respect to parts for maintenance other than remanufacturing; see § 1033.815 for provisions related to general maintenance.

(f) Failure to comply with this section is a violation of 40 CFR 1068.101(a)(1).

**§ 1033.810 In-use testing program.**

(a) *Applicability*. This section applies to all Class I freight railroads. It does not apply to other owner/operators.

(b) *Testing requirements*. Annually test a sample of locomotives in your fleet. For purposes of this section, your fleet includes both the locomotives that you own and the locomotives that you are leasing. Use the test procedures in subpart F of this part, unless we approve different procedures.

(1) Except for the cases described in paragraph (b)(2) of this section, test at least 0.075 percent of the average number of locomotives in your fleet during the previous calendar year (i.e., determine the number to be tested by multiplying the number of locomotives in the fleet by 0.00075 and rounding up to the next whole number).

(2) We may allow you to test a smaller number of locomotives if we determine that the number of tests otherwise required by this section is not necessary.

(c) *Test locomotive selection*. Unless we specify a different option, select test locomotives as specified in paragraph (c)(1) of this section (Option 1). In no case may you exclude locomotives because of visible smoke, a history of durability problems, or other evidence of malmaintenance. You may test more locomotives than is required by this section.

(1) *Option 1*. To the extent possible, select locomotives from each manufacturer and remanufacturer, and from each tier level (e.g., Tier 0, Tier 1 and Tier 2) in proportion to their numbers in the your fleet. Exclude locomotives tested during the previous year. If possible, select locomotives that have been operated for at least 100 percent of their useful lives. Where there are multiple locomotives meeting the requirements of this paragraph (c)(1), randomly select the locomotives to be tested from among those locomotives. If the number of certified locomotives that have been operated for at least 100 percent of their useful lives is not large enough to fulfill the testing

requirement, test locomotives still within their useful lives as follows:

(i) Test locomotives in your fleet that are nearest to the end of their useful lives. You may identify such locomotives as a range of values representing the fraction of the useful life already used up for the locomotives.

(ii) For example, you may determine that 20 percent of your fleet has been operated for at least 75 percent of their useful lives. In such a case, select locomotives for testing that have been operated for at least 75 percent of their useful lives.

(2) *Option 2*. If you hold a certificate for some of your locomotives, you may ask us to allow you to select up to two locomotives as specified in subpart E of this part, and count those locomotives toward both your testing obligations of that subpart and this section.

(3) *Option 3*. You may ask us to allow you to test locomotives that use parts covered under § 1033.645. If we do, it does not change the number of locomotives that you must test.

(4) *Option 4*. We may require that you test specific locomotives, including locomotives that do not meet the criteria specified in any of the options in this section. If we do, we will specify which locomotives to test by January 1 of the calendar year for which testing is required.

(d) *Reporting requirements*. Report all testing done in compliance with the provisions of this section to us within 45 calendar days after the end of each calendar year. At a minimum, include the following:

(1) Your full corporate name and address.

(2) For each locomotive tested, all the following:

(i) Corporate name of the manufacturer and last remanufacturer(s) of the locomotive (including both certificate holder and installer, where different), and the corporate name of the manufacturer or last remanufacturer(s) of the engine if different than that of the manufacturer/remanufacturer(s) of the locomotive.

(ii) Year (and month if known) of original manufacture of the locomotive and the engine, and the manufacturer's model designation of the locomotive and manufacturer's model designation of the engine, and the locomotive identification number.

(iii) Year (and month if known) that the engine last underwent remanufacture, the engine remanufacturer's designation that reflects (or most closely reflects) the engine after the last remanufacture, and the engine family identification.

(iv) The number of MW-hrs and miles (where available) the locomotive has been operated since its last remanufacture.

(v) The emission test results for all measured pollutants.

(e) You do not have to submit a report for any year in which you performed no emission testing under this section.

(f) You may ask us to allow you to submit equivalent emission data collected for other purposes instead of some or all of the test data required by this section. If we allow it in advance, you may report emission data collected using other testing or sampling procedures instead of some or all of the data specified by this section.

(g) Submit all reports to the Designated Compliance Officer.

(h) Failure to comply fully with this section is a violation of 40 CFR 1068.101(a)(2).

**§ 1033.815 Maintenance, operation, and repair.**

All persons who own, operate, or maintain locomotives are subject to this section, except where we specify that a requirement applies to the owner.

(a) Unless we allow otherwise, all owners of locomotives subject to the provisions of this part must ensure that all emission-related maintenance is performed on the locomotives, as specified in the maintenance instructions provided by the certifying manufacturer/remanufacturer in compliance with § 1033.125 (or maintenance that is equivalent to the maintenance specified by the certifying manufacturer/remanufacturer in terms of maintaining emissions performance).

(b) Perform unscheduled maintenance in a timely manner. This includes malfunctions identified through the locomotive's emission control diagnostics system and malfunctions discovered in components of the diagnostics system itself. For most repairs, this paragraph (b) requires that the maintenance be performed no later than the locomotive's next periodic (92-day) inspection. See paragraph (e) of this section, for reductant replenishment requirements in a locomotive equipped with an SCR system.

(c) Use good engineering judgment when performing maintenance of locomotives subject to the provisions of this part. You must perform all maintenance and repair such that you have a reasonable technical basis for believing the locomotive will continue (after the maintenance or repair) to meet the applicable emission standards and FELs to which it was certified.

(d) The owner of the locomotive must keep records of all maintenance and repairs that could reasonably affect the emission performance of any locomotive subject to the provisions of this part. Keep these records for eight years.

(e) For locomotives equipped with emission controls requiring the use of specific fuels, lubricants, or other fluids, proper maintenance includes complying with the manufacturer/remanufacturer's specifications for such fluids when operating the locomotives. This requirement applies without regard to whether misfueling permanently disables the emission controls. The following additional provisions apply for locomotives equipped with SCR systems requiring the use of urea or other reductants:

(1) You must plan appropriately to ensure that reductant will be available to the locomotive during operation.

(2) If the SCR diagnostic indicates (or you otherwise determine) that either reductant supply or reductant quality in the locomotive is inadequate, you must replace the reductant as soon as practical.

(3) If you operate a locomotive without the appropriate urea or other reductant, you must report such operation to us within 30 days. Note that such operation violates the requirement of this paragraph (e); however, we may consider mitigating factors (such as how long the locomotive was operated without the appropriate urea or other reductant) in determining whether to assess penalties for such violations.

(f) Failure to fully comply with this section is a violation of 40 CFR 1068.101(b).

**§ 1033.820 In-use locomotives.**

(a) We may require you to supply in-use locomotives to us for testing. We will specify a reasonable time and place at which you must supply the locomotives and a reasonable period during which we will keep them for testing. We will make reasonable allowances for you to schedule the supply of locomotives to minimize disruption of your operations. The number of locomotives that you must supply is limited as follows:

(1) We will not require a Class I railroad to supply more than five locomotives per railroad per calendar year.

(2) We will not require a non-Class I railroad (or other entity subject to the provisions of this subpart) to supply more than two locomotives per railroad per calendar year. We will request locomotives under this paragraph (a)(2) only for purposes that cannot be

accomplished using locomotives supplied under paragraph (a)(1) of this section.

(b) You must make reasonable efforts to supply manufacturers/remanufacturers with the test locomotives needed to fulfill the in-use testing requirements in subpart E of this part.

(c) Failure to fully comply with this section is a violation of 40 CFR 1068.101(a)(2).

#### § 1033.825 Refueling requirements.

(a) If your locomotive operates using a volatile fuel, your refueling equipment must be designed and used to minimize the escape of fuel vapors. This means you may not use refueling equipment in a way that renders any refueling emission controls inoperative or reduces their effectiveness.

(b) If your locomotive operates using a gaseous fuel, the hoses used to refuel it may not be designed to be bled or vented to the atmosphere under normal operating conditions.

(c) Failing to fully comply with the requirements of this section is a violation of 40 CFR 1068.101(b).

### Subpart J—Definitions and Other Reference Information

#### § 1033.901 Definitions.

The following definitions apply to this part. The definitions apply to all subparts unless we note otherwise. All undefined terms have the meaning the Clean Air Act gives to them. The definitions follow:

*Adjustable parameter* means any device, system, or element of design that someone can adjust (including those which are difficult to access) and that, if adjusted, may affect emissions or locomotive performance during emission testing or normal in-use operation. This includes, but is not limited to, parameters related to injection timing and fueling rate. You may ask us to exclude a parameter if you show us that it will not be adjusted in a way that affects emissions during in-use operation.

*Aftertreatment* means relating to a catalytic converter, particulate filter, or any other system, component, or technology mounted downstream of the exhaust valve (or exhaust port) whose design function is to reduce emissions in the locomotive exhaust before it is exhausted to the environment. Exhaust-gas recirculation (EGR) is not aftertreatment.

*Alcohol fuel* means a fuel consisting primarily (more than 50 percent by weight) of one or more alcohols: e.g., methyl alcohol, ethyl alcohol.

*Alternator/generator efficiency* means the ratio of the electrical power output from the alternator/generator to the mechanical power input to the alternator/generator at the operating point. Note that the alternator/generator efficiency may be different at different operating points. For example, the Institute of Electrical and Electronic Engineers Standard 115 (''Test Procedures for Synchronous Machines'') is an appropriate test procedure for determining alternator/generator efficiency. Other methods may also be used consistent with good engineering judgment.

*Applicable emission standard* or *applicable standard* means a standard to which a locomotive is subject; or, where a locomotive has been or is being certified to another standard or FEL, the FEL or other standard to which the locomotive has been or is being certified is the applicable standard. This definition does not apply to Subpart H of this part.

*Auxiliary emission control device* means any element of design that senses temperature, locomotive speed, engine RPM, transmission gear, or any other parameter for the purpose of activating, modulating, delaying, or deactivating the operation of any part of the emission-control system.

*Auxiliary engine* means a nonroad engine that provides hotel power or power during idle, but does not provide power to propel the locomotive.

*Averaging* means the exchange of emission credits among engine families within a given manufacturer's, or remanufacturer's product line.

*Banking* means the retention of emission credits by a credit holder for use in future calendar year averaging or trading as permitted by the regulations in this part.

*Brake power* means the sum of the alternator/generator input power and the mechanical accessory power, excluding any power required to circulate engine coolant, circulate engine lubricant, supply fuel to the engine, or operate aftertreatment devices.

*Calibration* means the set of specifications, including tolerances, specific to a particular design, version, or application of a component, or components, or assembly capable of functionally describing its operation over its working range.

*Carryover* means the process of obtaining a certificate for one model year using the same test data from the preceding model year, as described in § 1033.235(d). This generally requires that the locomotives in the engine family do not differ in any aspect related to emissions.

*Certification* means the process of obtaining a certificate of conformity for an engine family that complies with the emission standards and requirements in this part, or relating to that process.

*Certified emission level* means the highest deteriorated emission level in an engine family for a given pollutant from a given test cycle.

*Class I freight railroad* means a Class I railroad that primarily transports freight rather than passengers.

*Class I railroad* means a railroad that has been classified as a Class I railroad by the Surface Transportation Board.

*Class II railroad* means a railroad that has been classified as a Class II railroad by the Surface Transportation Board.

*Class III railroad* means a railroad that has been classified as a Class III railroad by the Surface Transportation Board.

*Clean Air Act* means the Clean Air Act, as amended, 42 U.S.C. 7401–7671q.

*Configuration* means a unique combination of locomotive hardware and calibration within an engine family. Locomotives within a single configuration differ only with respect to normal production variability (or factors unrelated to engine performance or emissions).

*Crankcase emissions* means airborne substances emitted to the atmosphere from any part of the locomotive crankcase's ventilation or lubrication systems. The crankcase is the housing for the crankshaft and other related internal parts.

*Days* means calendar days, unless otherwise specified. For example, where we specify working days, we mean calendar days excluding weekends and U.S. national holidays.

*Design certify* or *certify by design* means to certify a locomotive based on inherent design characteristics rather than your test data, such as allowed under § 1033.625. All other requirements of this part apply for such locomotives.

*Designated Compliance Officer* means the Manager, Heavy Duty and Nonroad Engine Group (6403–J), U.S. Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460.

*Deteriorated emission level* means the emission level that results from applying the appropriate deterioration factor to the official emission result of the emission-data locomotive.

*Deterioration factor* means the relationship between emissions at the end of useful life and emissions at the low-hour test point, expressed in one of the following ways:

(1) For multiplicative deterioration factors, the ratio of emissions at the end of useful life to emissions at the low-hour test point.

(2) For additive deterioration factors, the difference between emissions at the end of useful life and emissions at the low-hour test point.

*Discrete-mode* means relating to the discrete-mode type of steady-state test described in § 1033.515.

*Emission control system* means any device, system, or element of design that controls or reduces the regulated emissions from a locomotive.

*Emission credits* represent the amount of emission reduction or exceedance, by a locomotive engine family, below or above the emission standard, respectively. Emission reductions below the standard are considered as ''positive credits,'' while emission exceedances above the standard are considered as ''negative credits.'' In addition, ''projected credits'' refer to emission credits based on the projected applicable production/sales volume of the engine family. ''Reserved credits'' are emission credits generated within a calendar year waiting to be reported to EPA at the end of the calendar year. ''Actual credits'' refer to emission credits based on actual applicable production/sales volume as contained in the end-of-year reports submitted to EPA.

*Emission-data locomotive* means a locomotive or engine that is tested for certification. This includes locomotives tested to establish deterioration factors.

*Emission-related maintenance* means maintenance that substantially affects emissions or is likely to substantially affect emission deterioration.

*Engine family* has the meaning given in § 1033.230.

*Engine used in a locomotive* means an engine incorporated into a locomotive or intended for incorporation into a locomotive (whether or not it is used for propelling the locomotive).

*Engineering analysis* means a summary of scientific and/or engineering principles and facts that support a conclusion made by a manufacturer/remanufacturer, with respect to compliance with the provisions of this part.

*EPA Enforcement Officer* means any officer or employee of the Environmental Protection Agency so designated in writing by the Administrator or his/her designee.

*Exempted* means relating to a locomotive that is not required to meet otherwise applicable standards. Exempted locomotives must conform to regulatory conditions specified for an exemption in this part 1033 or in 40 CFR part 1068. Exempted locomotives are deemed to be ''subject to'' the standards of this part, even though they are not required to comply with the otherwise applicable requirements. Locomotives exempted with respect to a certain tier of standards may be required to comply with an earlier tier of standards as a condition of the exemption; for example, locomotives exempted with respect to Tier 3 standards may be required to comply with Tier 2 standards.

*Excluded* means relating to a locomotive that either has been determined not to be a locomotive (as defined in this section) or otherwise excluded under section § 1033.5. Excluded locomotives are not subject to the standards of this part.

*Exhaust emissions* means substances (i.e., gases and particles) emitted to the atmosphere from any opening downstream from the exhaust port or exhaust valve of a locomotive engine.

*Exhaust-gas recirculation* means a technology that reduces emissions by routing exhaust gases that had been exhausted from the combustion chamber(s) back into the locomotive to be mixed with incoming air before or during combustion. The use of valve timing to increase the amount of residual exhaust gas in the combustion chamber(s) that is mixed with incoming air before or during combustion is not considered exhaust-gas recirculation for the purposes of this part.

*Freshly manufactured locomotive* means a new locomotive that contains fewer than 25 percent previously used parts (weighted by the dollar value of the parts) as described in § 1033.640.

*Freshly manufactured engine* means a new engine that has not been remanufactured. An engine becomes freshly manufactured when it is originally manufactured.

*Family emission limit (FEL)* means an emission level declared by the manufacturer/remanufacturer to serve in place of an otherwise applicable emission standard under the ABT program in subpart H of this part. The family emission limit must be expressed to the same number of decimal places as the emission standard it replaces. The family emission limit serves as the emission standard for the engine family with respect to all required testing.

*Fuel system* means all components involved in transporting, metering, and mixing the fuel from the fuel tank to the combustion chamber(s), including the fuel tank, fuel tank cap, fuel pump, fuel filters, fuel lines, carburetor or fuel-injection components, and all fuel-system vents.

*Fuel type* means a general category of fuels such as diesel fuel or natural gas. There can be multiple grades within a single fuel type, such as high-sulfur or low-sulfur diesel fuel.

*Gaseous fuel* means a fuel which is a gas at standard temperature and pressure. This includes both natural gas and liquefied petroleum gas.

*Good engineering judgment* means judgments made consistent with generally accepted scientific and engineering principles and all available relevant information. See 40 CFR 1068.5 for the administrative process we use to evaluate good engineering judgment.

*Green Engine Factor* means a factor that is applied to emission measurements from a locomotive or locomotive engine that has had little or no service accumulation. The Green Engine Factor adjusts emission measurements to be equivalent to emission measurements from a locomotive or locomotive engine that has had approximately 300 hours of use.

*High-altitude* means relating to an altitude greater than 4000 feet (1220 meters) and less than 7000 feet (2135 meters), or equivalent observed barometric test conditions (approximately 79 to 88 kPa).

*High-sulfur diesel fuel* means one of the following:

(1) For in-use fuels, high-sulfur diesel fuel means a diesel fuel with a maximum sulfur concentration greater than 500 parts per million.

(2) For testing, high-sulfur diesel fuel has the meaning given in 40 CFR part 1065.

*Hotel power* means the power provided by an engine on a locomotive to operate equipment on passenger cars of a train; e.g., heating and air conditioning, lights, etc.

*Hydrocarbon (HC)* means the hydrocarbon group (THC, NMHC, or THCE) on which the emission standards are based for each fuel type as described in § 1033.101.

*Identification number* means a unique specification (for example, a model number/serial number combination) that allows someone to distinguish a particular locomotive from other similar locomotives.

*Idle speed* means the speed, expressed as the number of revolutions of the crankshaft per unit of time (e.g., rpm), at which the engine is set to operate when not under load for purposes of propelling the locomotive. There are typically one or two idle speeds on a locomotive as follows:

(1) *Normal idle speed* means the idle speed for the idle throttle-notch position for locomotives that have one throttle-notch position, or the highest idle speed

for locomotives that have two idle throttle-notch positions.

(2) *Low idle speed* means the lowest idle speed for locomotives that have two idle throttle-notch positions.

*Inspect and qualify* means to determine that a previously used component or system meets all applicable criteria listed for the component or system in a certificate of conformity for remanufacturing (such as to determine that the component or system is functionally equivalent to one that has not been used previously).

*Installer* means an individual or entity that assembles remanufactured locomotives or locomotive engines.

*Line-haul locomotive* means a locomotive that does not meet the definition of switch locomotive. Note that this includes both freight and passenger locomotives.

*Liquefied petroleum gas* means the commercial product marketed as propane or liquefied petroleum gas.

*Locomotive* means a self-propelled piece of on-track equipment designed for moving or propelling cars that are designed to carry freight, passengers or other equipment, but which itself is not designed or intended to carry freight, passengers (other than those operating the locomotive) or other equipment. The following other equipment are not locomotives (see 40 CFR parts 86, 89, and 1039 for this diesel-powered equipment):

(1) Equipment designed for operation both on highways and rails is not a locomotive.

(2) Specialized railroad equipment for maintenance, construction, post-accident recovery of equipment, and repairs; and other similar equipment, are not locomotives.

(3) Vehicles propelled by engines with total rated power of less than 750 kW (1006 hp) are not locomotives, unless the owner (which may be a manufacturer) chooses to have the equipment certified to meet the requirements of this part (under § 1033.615). Where equipment is certified as a locomotive pursuant to this paragraph (3), it is subject to the requirements of this part for the remainder of its service life. For locomotives propelled by two or more engines, the total rated power is the sum of the rated power of each engine.

*Locomotive engine* means an engine that propels a locomotive.

*Low-hour* means relating to a locomotive with stabilized emissions and represents the undeteriorated emission level. This would generally involve less than 300 hours of operation.

*Low mileage locomotive* means a locomotive during the interval between the time that normal assembly operations and adjustments are completed and the time that either 10,000 miles of locomotive operation or 300 additional operating hours have been accumulated (including emission testing if performed). Note that we may deem locomotives with additional operation to be low mileage locomotives, consistent with good engineering judgment.

*Low-sulfur diesel fuel* means one of the following:

(1) For in-use fuels, *low-sulfur diesel fuel* means a diesel fuel market as low-sulfur diesel fuel having a maximum sulfur concentration of 500 parts per million.

(2) For testing, *low-sulfur diesel fuel* has the meaning given in 40 CFR part 1065.

*Malfunction* means a condition in which the operation of a component in a locomotive or locomotive engine occurs in a manner other than that specified by the certifying manufacturer/remanufacturer (e.g., as specified in the application for certification); or the operation of the locomotive or locomotive engine in that condition.

*Manufacture* means the physical and engineering process of designing, constructing, and assembling a locomotive or locomotive engine.

*Manufacturer* has the meaning given in section 216(1) of the Clean Air Act with respect to freshly manufactured locomotives or engines. In general, this term includes any person who manufactures a locomotive or engine for sale in the United States or otherwise introduces a new locomotive or engine into commerce in the United States. This includes importers who import locomotives or engines for resale.

*Manufacturer/remanufacturer* means the manufacturer of a freshly manufactured locomotive or engine or the remanufacturer of a remanufactured locomotive or engine, as applicable.

*Model year* means a calendar year in which a locomotive is manufactured or remanufactured.

*New,* when relating to a locomotive or locomotive engine, has the meaning given in paragraph (1) of this definition, except as specified in paragraph (2) of this definition:

(1) A locomotive or engine is new if its equitable or legal title has never been transferred to an ultimate purchaser. Where the equitable or legal title to a locomotive or engine is not transferred prior to its being placed into service, the locomotive or engine ceases to be new when it is placed into service. A locomotive or engine also becomes new if it is remanufactured or refurbished (as defined in this section). A remanufactured locomotive or engine ceases to be new when placed back into service. With respect to imported locomotives or locomotive engines, the term ''new locomotive'' or ''new locomotive engine'' also means a locomotive or locomotive engine that is not covered by a certificate of conformity under this part or 40 CFR part 92 at the time of importation, and that was manufactured or remanufactured after the effective date of the emission standards in 40 CFR part 92 which would have been applicable to such locomotive or engine had it been manufactured or remanufactured for importation into the United States. Note that replacing an engine in one locomotive with an unremanufactured used engine from a different locomotive does not make a locomotive new.

(2) The provisions of paragraph (1) of this definition do not apply for the following cases:

(i) Locomotives and engines that were originally manufactured before January 1, 1973 are not considered to become new when remanufactured unless they have been upgraded (as defined in this section). The provisions of paragraph (1) of this definition apply for locomotives that have been upgraded.

(ii) Locomotives that are owned and operated by a small railroad and that have never been remanufactured into a certified configuration are not considered to become new when remanufactured. The provisions of paragraph (1) of this definition apply for locomotives that have previously been remanufactured into a certified configuration.

(iii) Locomotives originally certified under (1033.150(e) do not become new when remanufactured, except as specified in § 1033.615.

(iv) Locomotives that operate only on non-standard gauge rails do not become new when remanufactured if no certified remanufacturing system is available for them.

*Nonconforming* means relating to a locomotive that is not covered by a certificate of conformity prior to importation or being offered for importation (or for which such coverage has not been adequately demonstrated to EPA); or a locomotive which was originally covered by a certificate of conformity, but which is not in a certified configuration, or otherwise does not comply with the conditions of that certificate of conformity. (**Note:** Domestic locomotives and locomotive engines not covered by a certificate of conformity prior to their introduction

into U.S. commerce are considered to be noncomplying locomotives and locomotive engines.)

*Non-locomotive-specific engine* means an engine that is sold for and used in non-locomotive applications much more than for locomotive applications.

*Nonmethane hydrocarbon* has the meaning given in 40 CFR 1065.1001. This generally means the difference between the emitted mass of total hydrocarbons and the emitted mass of methane.

*Nonroad* means relating to nonroad engines as defined in 40 CFR 1068.30.

*Official emission result* means the measured emission rate for an emission-data locomotive on a given duty cycle before the application of any deterioration factor, but after the application of regeneration adjustment factors, Green Engine Factors, and/or humidity correction factors.

*Opacity* means the fraction of a beam of light, expressed in percent, which fails to penetrate a plume of smoke, as measured by the procedure specified in § 1033.525.

*Original manufacture* means the event of freshly manufacturing a locomotive or locomotive engine. The date of original manufacture is the date of final assembly, except as provided in § 1033.640. Where a locomotive is manufactured under § 1033.620(b), the date of original manufacture is the date on which the final assembly of locomotive was originally scheduled.

*Original remanufacture* means the first remanufacturing of a locomotive at which the locomotive is subject to the emission standards of this part.

*Owner/operator* means the owner and/or operator of a locomotive.

*Owners manual* means a written or electronic collection of instructions provided to ultimate purchasers to describe the basic operation of the locomotive.

*Oxides of nitrogen* has the meaning given in 40 CFR part 1065.

*Particulate trap* means a filtering device that is designed to physically trap all particulate matter above a certain size.

*Passenger locomotive* means a locomotive designed and constructed for the primary purpose of propelling passenger trains, and providing power to the passenger cars of the train for such functions as heating, lighting and air conditioning.

*Petroleum fuel* means gasoline or diesel fuel or another liquid fuel primarily derived from crude oil.

*Placed into service* means put into initial use for its intended purpose after becoming new.

*Power assembly* means the components of an engine in which combustion of fuel occurs, and consists of the cylinder, piston and piston rings, valves and ports for admission of charge air and discharge of exhaust gases, fuel injection components and controls, cylinder head and associated components.

*Primary fuel* means the type of fuel (e.g., diesel fuel) that is consumed in the greatest quantity (mass basis) when the locomotive is operated in use.

*Produce* means to manufacture or remanufacture. Where a certificate holder does not actually assemble the locomotives or locomotive engines that it manufactures or remanufactures, produce means to allow other entities to assemble locomotives under the certificate holder's certificate.

*Railroad* means a commercial entity that operates locomotives to transport passengers or freight.

*Ramped-modal* means relating to the ramped-modal type of testing in subpart F of this part.

*Rated power* has the meaning given in § 1033.140.

*Refurbish* has the meaning given in § 1033.640.

*Remanufacture* means one of the following:

(1)(i) To replace, or inspect and qualify, each and every power assembly of a locomotive or locomotive engine, whether during a single maintenance event or cumulatively within a five-year period.

(ii) To upgrade a locomotive or locomotive engine.

(iii) To convert a locomotive or locomotive engine to enable it to operate using a fuel other than it was originally manufactured to use.

(iv) To install a remanufactured engine or a freshly manufactured engine into a previously used locomotive.

(v) To repair a locomotive engine that does not contain power assemblies to a condition that is equivalent to or better than its original condition with respect to reliability and fuel consumption.

(2) Remanufacture also means the act of remanufacturing.

*Remanufacture system* or *remanufacturing system* means all components (or specifications for components) and instructions necessary to remanufacture a locomotive or locomotive engine in accordance with applicable requirements of this part or 40 CFR part 92.

*Remanufactured locomotive* means either a locomotive powered by a remanufactured locomotive engine, a repowered locomotive, or a refurbished locomotive.

*Remanufactured locomotive engine* means a locomotive engine that has been remanufactured.

*Remanufacturer* has the meaning given to ''manufacturer'' in section 216(1) of the Clean Air Act with respect to remanufactured locomotives. (See §§ 1033.1 and 1033.601 for applicability of this term.) This term includes:

(1) Any person that is engaged in the manufacture or assembly of remanufactured locomotives or locomotive engines, such as persons who:

(i) Design or produce the emission-related parts used in remanufacturing.

(ii) Install parts in an existing locomotive or locomotive engine to remanufacture it.

(iii) Own or operate the locomotive or locomotive engine and provide specifications as to how an engine is to be remanufactured (i.e., specifying who will perform the work, when the work is to be performed, what parts are to be used, or how to calibrate the adjustable parameters of the engine).

(2) Any person who imports remanufactured locomotives or remanufactured locomotive engines.

*Repower* means replacement of the engine in a previously used locomotive with a freshly manufactured locomotive engine. See § 1033.640.

*Repowered locomotive* means a locomotive that has been repowered with a freshly manufactured engine.

*Revoke* has the meaning given in 40 CFR 1068.30. In general this means to terminate the certificate or an exemption for an engine family.

*Round* means to round numbers as specified in 40 CFR 1065.1001.

*Service life* means the total life of a locomotive. Service life begins when the locomotive is originally manufactured and continues until the locomotive is permanently removed from service.

*Small manufacturer/remanufacturer* means a manufacturer/remanufacturer with 1,000 or fewer employees. For purposes of this part, the number of employees includes all employees of the manufacturer/remanufacturer's parent company, if applicable.

*Small railroad* means a railroad meeting the criterion of paragraph (1) of this definition, but not either of the criteria of paragraphs (2) and (3) of this definition.

(1) To be considered a small railroad, a railroad must qualify as a small business under the Small Business Administration's regulations in 13 CFR part 121.

(2) Class I and Class II railroads (and their subsidiaries) are not small railroads.

(3) Intercity passenger and commuter railroads are excluded from this

definition of small railroad. Note that this paragraph (3) does not exclude tourist railroads.

*Specified adjustable range* means the range of allowable settings for an adjustable component specified by a certificate of conformity.

*Specified by a certificate of conformity* or *specified in a certificate of conformity* means stated or otherwise specified in a certificate of conformity or an approved application for certification.

*Sulfur-sensitive technology* means an emission-control technology that would experience a significant drop in emission control performance or emission-system durability when a locomotive is operated on low-sulfur fuel with a sulfur concentration of 300 to 500 ppm as compared to when it is operated on ultra low-sulfur fuel (i.e., fuel with a sulfur concentration less than 15 ppm). Exhaust-gas recirculation is not a sulfur-sensitive technology.

*Suspend* has the meaning given in 40 CFR 1068.30. In general this means to temporarily discontinue the certificate or an exemption for an engine family.

*Switch locomotive* means a locomotive that is powered by an engine with a maximum rated power (or a combination of engines having a total rated power) of 2300 hp or less. Include auxiliary engines in your calculation of total power if the engines are permanently installed on the locomotive and can be operated while the main propulsion engine is operating. Do not count the power of auxiliary engines that operate only to reduce idling time of the propulsion engine.

*Test locomotive* means a locomotive or engine in a test sample.

*Test sample* means the collection of locomotives or engines selected from the population of an engine family for emission testing. This may include testing for certification, production-line testing, or in-use testing.

*Tier 0* or *Tier 0+* means relating to the Tier 0 emission standards, as shown in § 1033.101.

*Tier 1* or *Tier 1+* means relating to the Tier 1 emission standards, as shown in § 1033.101.

*Tier 2* or *Tier 2+* means relating to the Tier 2 emission standards, as shown in § 1033.101.

*Tier 3* means relating to the Tier 3 emission standards, as shown in § 1033.101.

*Tier 4* means relating to the Tier 4 emission standards, as shown in § 1033.101.

*Total hydrocarbon* has the meaning given in 40 CFR 1065.1001. This generally means the combined mass of organic compounds measured by the specified procedure for measuring total hydrocarbon, expressed as a hydrocarbon with an atomic hydrogen-to-carbon ratio of 1.85:1.

*Total hydrocarbon equivalent* has the meaning given in 40 CFR 1065.1001. This generally means the sum of the carbon mass contributions of non-oxygenated hydrocarbons, alcohols and aldehydes, or other organic compounds that are measured separately as contained in a gas sample, expressed as exhaust hydrocarbon from petroleum-fueled locomotives. The hydrogen-to-carbon ratio of the equivalent hydrocarbon is 1.85:1.

*Ultimate purchaser* means the first person who in good faith purchases a new locomotive for purposes other than resale.

*Ultra low-sulfur diesel fuel* means one of the following:

(1) For in-use fuels, *ultra low-sulfur diesel fuel* means a diesel fuel marketed as ultra low-sulfur diesel fuel having a maximum sulfur concentration of 15 parts per million.

(2) For testing, *ultra low-sulfur diesel fuel* has the meaning given in 40 CFR part 1065.

*Upcoming model year* means for an engine family the model year after the one currently in production.

*Upgrade* means one of the following types of remanufacturing.

(1) Repowering a locomotive that was originally manufactured prior to January 1, 1973.

(2) Refurbishing a locomotive that was originally manufactured prior to January 1, 1973 in a manner that is not freshly manufacturing.

(3) Modifying a locomotive that was originally manufactured prior to January 1, 1973 (or a locomotive that was originally manufactured on or after January 1, 1973, and that is not subject to the emission standards of this part), such that it is intended to comply with the Tier 0 standards. See § 1033.615.

*Useful life* means the period during which the locomotive engine is designed to properly function in terms of reliability and fuel consumption, without being remanufactured, specified as work output or miles. It is the period during which a new locomotive is required to comply with all applicable emission standards. See § 1033.101(g).

*Void* has the meaning given in 40 CFR 1068.30. In general this means to invalidate a certificate or an exemption both retroactively and prospectively.

*Volatile fuel* means a volatile liquid fuel or any fuel that is a gas at atmospheric pressure. Gasoline, natural gas, and LPG are volatile fuels.

*Volatile liquid fuel* means any liquid fuel other than diesel or biodiesel that is a liquid at atmospheric pressure and has a Reid Vapor Pressure higher than 2.0 pounds per square inch.

*We (us, our)* means the Administrator of the Environmental Protection Agency and any authorized representatives.

### § 1033.905 Symbols, acronyms, and abbreviations.

The following symbols, acronyms, and abbreviations apply to this part:

AECD auxiliary emission control device.
AESS automatic engine stop/start
CFR Code of Federal Regulations.
CO carbon monoxide.
$CO_2$ carbon dioxide.
EPA Environmental Protection Agency.
FEL Family Emission Limit.
g/bhp-hr grams per brake horsepower-hour.
HC hydrocarbon.
hp horsepower.
LPG liquefied petroleum gas.
LSD low sulfur diesel.
MW megawatt.
NIST National Institute of Standards and Technology.
NMHC nonmethane hydrocarbons.
$NO_X$ oxides of nitrogen.
PM particulate matter.
rpm revolutions per minute.
SAE Society of Automotive Engineers.
SCR selective catalytic reduction.
SEA Selective Enforcement Audit.
THC total hydrocarbon.
THCE total hydrocarbon equivalent.
UL useful life.
ULSD ultra low sulfur diesel.
U.S.C. United States Code.

### § 1033.915 Confidential information.

(a) Clearly show what you consider confidential by marking, circling, bracketing, stamping, or some other method.

(b) We will store your confidential information as described in 40 CFR part 2. Also, we will disclose it only as specified in 40 CFR part 2. This applies both to any information you send us and to any information we collect from inspections, audits, or other site visits.

(c) If you send us a second copy without the confidential information, we will assume it contains nothing confidential whenever we need to release information from it.

(d) If you send us information without claiming it is confidential, we may make it available to the public without further notice to you, as described in 40 CFR 2.204.

### § 1033.920 How to request a hearing.

(a) You may request a hearing under certain circumstances, as described elsewhere in this part. To do this, you must file a written request, including a description of your objection and any supporting data, within 30 days after we make a decision.

(b) For a hearing you request under the provisions of this part, we will

approve your request if we find that your request raises a substantial factual issue.

(c) If we agree to hold a hearing, we will use the procedures specified in 40 CFR part 1068, subpart G.

## PART 1039—CONTROL OF EMISSIONS FROM NEW AND IN-USE NONROAD COMPRESSION-IGNITION ENGINES

■ 39. The authority citation for part 1039 continues to read as follows:

**Authority:** 42 U.S.C. 7401–7671q.

### Subpart F—[Amended]

■ 40. Section 1039.505 is amended by revising paragraphs (a)(1) introductory text, (c), and (d) and adding paragraph (g) to read as follows:

**§ 1039.505 How do I test engines using steady-state duty cycles, including ramped-modal testing?**

* * * * *

(a) * * *

(1) For discrete-mode testing, sample emissions separately for each mode, then calculate an average emission level for the whole cycle using the weighting factors specified for each mode. Calculate cycle statistics and compare with the established criteria as specified in 40 CFR 1065.514 to confirm that the test is valid. Operate the engine and sampling system as follows:

* * * * *

(c) During idle mode, operate the engine at its warm idle speed as described in 40 CFR part 1065.

(d) For constant-speed engines whose design prevents full-load operation for extended periods, you may ask for approval under 40 CFR 1065.10(c) to replace full-load operation with the maximum load for which the engine is designed to operate for extended periods.

* * * * *

(g) To allow non-motoring dynamometers on cycles with idle, you may omit additional points from the duty-cycle regression as follows:

(1) For variable-speed engines with low-speed governors, you may omit speed, torque, and power points from the duty-cycle regression statistics if the following are met:

(i) The engine operator demand is at its minimum.

(ii) The dynamometer demand is at its minimum.

(iii) It is an idle point $f_{nref} = 0$ % (idle) and $T_{ref} = 0$ % (idle).

(iv) $T_{ref} < T \leq 5\ \% \cdot T_{max}$ mapped.

(2) For variable-speed engines without low-speed governors, you may omit torque and power points from the duty-cycle regression statistics if the following are met:

(i) The dynamometer demand is at its minimum.

(ii) It is an idle point $f_{nref} = 0$ % (idle) and $T_{ref} = 0$ % (idle).

(iii) $f_{nref} - (2\ \% \cdot f_{ntest}) < f_n < f_{nref} + (2\ \% \cdot f_{ntest})$.

(iv) $T_{ref} < T \leq 5\ \% \cdot T_{max}$ mapped.

### Subpart G—[Amended]

■ 41. Section 1039.645 is amended by revising paragraph (b)(1) to read as follows:

**§ 1039.645 What special provisions apply to engines used for transportation refrigeration units?**

* * * * *

(b) * * *

(1) The following duty cycle applies for discrete-mode testing:

TABLE 1 OF § 1039.645.—DISCRETE-MODE CYCLE FOR TRU ENGINES

| Mode number | Engine speed [1] | Torque (percent) [2] | Weighting factors |
|---|---|---|---|
| 1 | Maximum test speed | 75 | 0.25 |
| 2 | Maximum test speed | 50 | 0.25 |
| 3 | Intermediate test speed | 75 | 0.25 |
| 4 | Intermediate test speed | 50 | 0.25 |

[1] Speed terms are defined in 40 CFR part 1065.
[2] The percent torque is relative to the maximum torque at the given engine speed.

* * * * *

### Appendices—[Amended]

■ 42. Appendix II to part 1039 is revised to read as follows:

**Appendix II to Part 1039—Steady-State Duty Cycles**

(a) The following duty cycles apply for constant-speed engines:

(1) The following duty cycle applies for discrete-mode testing:

| D2 mode number | Engine speed | Torque (percent) [1] | Weighting factors |
|---|---|---|---|
| 1 | Engine governed | 100 | 0.05 |
| 2 | Engine governed | 75 | 0.25 |
| 3 | Engine governed | 50 | 0.30 |
| 4 | Engine governed | 25 | 0.30 |
| 5 | Engine governed | 10 | 0.10 |

[1] The percent torque is relative to maximum test torque.

(2) The following duty cycle applies for ramped-modal testing:

| RMC mode | Time in mode (seconds) | Engine speed | Torque (percent) [1, 2] |
|---|---|---|---|
| 1a Steady-state | 53 | Engine governed | 100. |
| 1b Transition | 20 | Engine governed | Linear transition. |
| 2a Steady-state | 101 | Engine governed | 10. |

| RMC mode | Time in mode (seconds) | Engine speed | Torque (percent) [1, 2] |
|---|---|---|---|
| 2b Transition | 20 | Engine governed | Linear transition. |
| 3a Steady-state | 277 | Engine governed | 75. |
| 3b Transition | 20 | Engine governed | Linear transition. |
| 4a Steady-state | 339 | Engine governed | 25. |
| 4b Transition | 20 | Engine governed | Linear transition. |
| 5 Steady-state | 350 | Engine governed | 50. |

[1] The percent torque is relative to maximum test torque.
[2] Advance from one mode to the next within a 20-second transition phase. During the transition phase, command a linear progression from the torque setting of the current mode to the torque setting of the next mode.

(b) The following duty cycles apply for variable-speed engines with maximum engine power below 19 kW:

(1) The following duty cycle applies for discrete-mode testing:

| G2 mode number | Engine speed [1] | Torque (percent) [2] | Weighting factors |
|---|---|---|---|
| 1 | Maximum test speed | 100 | 0.09 |
| 2 | Maximum test speed | 75 | 0.20 |
| 3 | Maximum test speed | 50 | 0.29 |
| 4 | Maximum test speed | 25 | 0.30 |
| 5 | Maximum test speed | 10 | 0.07 |
| 6 | Warm idle | 0 | 0.05 |

[1] Speed terms are defined in 40 CFR part 1065.
[2] The percent torque is relative to the maximum torque at the commanded test speed.

(2) The following duty cycle applies for ramped-modal testing:

| RMC mode | Time in mode (seconds) | Engine speed [1, 3] | Torque (percent) [2, 3] |
|---|---|---|---|
| 1a Steady-state | 41 | Warm idle | 0. |
| 1b Transition | 20 | Linear transition | Linear transition. |
| 2a Steady-state | 135 | Maximum test speed | 100. |
| 2b Transition | 20 | Maximum test speed | Linear transition. |
| 3a Steady-state | 112 | Maximum test speed | 10. |
| 3b Transition | 20 | Maximum test speed | Linear transition. |
| 4a Steady-state | 337 | Maximum test speed | 75. |
| 4b Transition | 20 | Maximum test speed | Linear transition. |
| 5a Steady-state | 518 | Maximum test speed | 25. |
| 5b Transition | 20 | Maximum test speed | Linear transition. |
| 6a Steady-state | 494 | Maximum test speed | 50. |
| 6b Transition | 20 | Linear transition | Linear transition. |
| 7 Steady-state | 43 | Warm idle | 0. |

[1] Speed terms are defined in 40 CFR part 1065.
[2] The percent torque is relative to the maximum torque at the commanded engine speed.
[3] Advance from one mode to the next within a 20-second transition phase. During the transition phase, command a linear progression from the torque setting of the current mode to the torque setting of the next mode, and simultaneously command a similar linear progression for engine speed if there is a change in speed setting.

(c) The following duty cycles apply for variable-speed engines with maximum engine power at or above 19 kW:

(1) The following duty cycle applies for discrete-mode testing:

| C1 mode number | Engine speed [1] | Torque (percent) [2] | Weighting factors |
|---|---|---|---|
| 1 | Maximum test speed | 100 | 0.15 |
| 2 | Maximum test speed | 75 | 0.15 |
| 3 | Maximum test speed | 50 | 0.15 |
| 4 | Maximum test speed | 10 | 0.10 |
| 5 | Intermediate test speed | 100 | 0.10 |
| 6 | Intermediate test speed | 75 | 0.10 |
| 7 | Intermediate test speed | 50 | 0.10 |
| 8 | Warm idle | 0 | 0.15 |

[1] Speed terms are defined in 40 CFR part 1065.
[2] The percent torque is relative to the maximum torque at the commanded test speed.

(2) The following duty cycle applies for ramped-modal testing:

| RMC mode | Time in mode (seconds) | Engine speed [1, 3] | Torque (percent) [2, 3] |
|---|---|---|---|
| 1a Steady-state | 126 | Warm Idle | 0. |
| 1b Transition | 20 | Linear Transition | Linear Transition. |
| 2a Steady-state | 159 | Intermediate Speed | 100. |
| 2b Transition | 20 | Intermediate Speed | Linear Transition. |
| 3a Steady-state | 160 | Intermediate Speed | 50. |
| 3b Transition | 20 | Intermediate Speed | Linear Transition. |
| 4a Steady-state | 162 | Intermediate Speed | 75. |
| 4b Transition | 20 | Linear Transition | Linear Transition. |
| 5a Steady-state | 246 | Maximum Test Speed | 100. |
| 5b Transition | 20 | Maximum Test Speed | Linear Transition. |
| 6a Steady-state | 164 | Maximum Test Speed | 10. |
| 6b Transition | 20 | Maximum Test Speed | Linear Transition. |
| 7a Steady-state | 248 | Maximum Test Speed | 75. |
| 7b Transition | 20 | Maximum Test Speed | Linear Transition. |
| 8a Steady-state | 247 | Maximum Test Speed | 50. |
| 8b Transition | 20 | Linear Transition | Linear Transition. |
| 9 Steady-state | 128 | Warm Idle | 0. |

[1] Speed terms are defined in 40 CFR part 1065.
[2] The percent torque is relative to the maximum torque at the commanded engine speed.
[3] Advance from one mode to the next within a 20-second transition phase. During the transition phase, command a linear progression from the torque setting of the current mode to the torque setting of the next mode, and simultaneously command a similar linear progression for engine speed if there is a change in speed setting.

■ 43. Appendix III and Appendix IV of part 1039 are removed and reserved.

■ 44. A new part 1042 is added to subchapter U of chapter I to read as follows:

## PART 1042—CONTROL OF EMISSIONS FROM NEW AND IN-USE MARINE COMPRESSION-IGNITION ENGINES AND VESSELS

### Subpart A—Overview and Applicability

Sec.
1042.1 Applicability.
1042.2 Who is responsible for compliance?
1042.5 Exclusions.
1042.10 Organization of this part.
1042.15 Do any other regulation parts apply to me?

### Subpart B—Emission Standards and Related Requirements

1042.101 Exhaust emission standards.
1042.107 Evaporative emission standards.
1042.110 Recording reductant use and other diagnostic functions.
1042.115 Other requirements.
1042.120 Emission-related warranty requirements.
1042.125 Maintenance instructions for Category 1 and Category 2 engines.
1042.130 Installation instructions for vessel manufacturers.
1042.135 Labeling.
1042.140 Maximum engine power, displacement, and power density.
1042.145 Interim provisions.

### Subpart C—Certifying Engine Families

1042.201 General requirements for obtaining a certificate of conformity.
1042.205 Application requirements.
1042.210 Preliminary approval.
1042.220 Amending maintenance instructions.
1042.225 Amending applications for certification.
1042.230 Engine families.
1042.235 Emission testing required for a certificate of conformity.
1042.240 Demonstrating compliance with exhaust emission standards.
1042.245 Deterioration factors.
1042.250 Recordkeeping and reporting.
1042.255 EPA decisions.

### Subpart D—Testing Production-Line Engines

1042.301 General provisions.
1042.305 Preparing and testing production-line engines.
1042.310 Engine selection.
1042.315 Determining compliance.
1042.320 What happens if one of my production-line engines fails to meet emission standards?
1042.325 What happens if an engine family fails the production-line testing requirements?
1042.330 Selling engines from an engine family with a suspended certificate of conformity.
1042.335 Reinstating suspended certificates.
1042.340 When may EPA revoke my certificate under this subpart and how may I sell these engines again?
1042.345 Reporting.
1042.350 Recordkeeping.

### Subpart E—In-Use Testing

1042.401 General Provisions.

### Subpart F—Test Procedures

1042.501 How do I run a valid emission test?
1042.505 Testing engines using discrete-mode or ramped-modal duty cycles.
1042.515 Test procedures related to not-to-exceed standards.
1042.520 What testing must I perform to establish deterioration factors?
1042.525 How do I adjust emission levels to account for infrequently regenerating aftertreatment devices?

### Subpart G—Special Compliance Provisions

1042.601. General compliance provisions for marine engines and vessels.
1042.605 Dressing engines already certified to other standards for nonroad or heavy-duty highway engines for marine use.
1042.610 Certifying auxiliary marine engines to land-based standards.
1042.615 Replacement engine exemption.
1042.620 Engines used solely for competition.
1042.625 Special provisions for engines used in emergency applications.
1042.630 Personal-use exemption.
1042.635 National security exemption.
1042.640 Special provisions for branded engines.
1042.650 Migratory vessels.
1042.660 Requirements for vessel manufacturers, owners, and operators.

### Subpart H—Averaging, Banking, and Trading for Certification

1042.701 General provisions.
1042.705 Generating and calculating emission credits.
1042.710 Averaging emission credits.
1042.715 Banking emission credits.
1042.720 Trading emission credits.
1042.725 Information required for the application for certification.
1042.730 ABT reports.
1042.735 Recordkeeping.
1042.745 Noncompliance.

### Subpart I—Special Provisions for Remanufactured Marine Engines

1042.801 General provisions.
1042.810 Requirements for owner/operators and installers during remanufacture.
1042.815 Demonstrating availability.

1042.820 Emission standards and required emission reductions for remanufactured engines.
1042.825 Baseline determination.
1042.830 Labeling.
1042.835 Certification of remanufactured engines.
1042.836 Marine certification of locomotive remanufacturing systems.
1042.840 Application requirements for remanufactured engines.
1042.845 Remanufactured engine families.
1042.850 Exemptions and hardship relief.

**Subpart J—Definitions and Other Reference Information**

1042.901 Definitions.
1042.905 Symbols, acronyms, and abbreviations.
1042.910 Reference materials.
1042.915 Confidential information.
1042.920 Hearings.
1042.925 Reporting and recordkeeping requirements.
Appendix I to Part 1042—Summary of Previous Emission Standards
Appendix II to Part 1042—Steady-state Duty Cycles
Appendix III to Part 1042—Not-to-Exceed Zones

**Authority:** 42 U.S.C. 7401–7671q.

## Subpart A—Overview and Applicability

### § 1042.1 Applicability.

Except as provided in § 1042.5, the regulations in this part 1042 apply for all new compression-ignition marine engines with per-cylinder displacement below 30.0 liters per cylinder and vessels containing such engines. See § 1042.901 for the definitions of engines and vessels considered to be new. This part 1042 applies as follows:

(a) This part 1042 applies for freshly manufactured marine engines starting with the model years noted in the following tables:

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Table 1 to §1042.1— Part 1042 Applicability by Model Year

| Engine Category | Maximum Engine Power | Displacement (L/cyl) or Application | Model Year |
|---|---|---|---|
| Category 1 | kW <75 | disp.< 0.9 | 2009[a] |
| | 75 ≤ kW < 3700 | disp.< 0.9 | 2012 |
| | | 0.9 ≤ disp. < 1.2 | 2013 |
| | | 1.2 ≤ disp. < 2.5 | 2014 |
| | | 2.5 ≤ disp. < 3.5 | 2013 |
| | | 3.5 ≤ disp.< 7.0 | 2012 |
| | kW ≥ 3700 | All | 2014 |
| Category 2 | kW < 3700 | 7.0 ≤ disp. < 15.0 | 2013 |
| | kW ≥ 3700 | 7.0 ≤ disp. < 15.0 | 2014 |
| | All | 15 ≤ disp. < 30 | 2014 |

[a]See Table 1 of §1042.101 for the first model year in which this part 1042 applies for engines with maximum engine power below 75 kW and displacement at or above 0.9 L/cyl.

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(b) The requirements of subpart I of this part apply to remanufactured engines beginning July 7, 2008.

(c) See 40 CFR part 94 for requirements that apply to engines with maximum engine power at or above 37 kW not yet subject to the requirements of this part 1042. See 40 CFR part 89 for requirements that apply to engines with maximum engine power below 37 kW not yet subject to the requirements of this part 1042.

(d) The provisions of §§ 1042.620 and 1042.901 apply for new engines used solely for competition beginning January 1, 2009.

(e) Marine engines powered by natural gas with maximum engine power at or above 250 kW are deemed to be compression-ignition engines. These engines are therefore subject to all the requirements of this part even if they do not meet the definition of ''compression-ignition'' in § 1042.901.

### § 1042.2 Who is responsible for compliance?

The regulations in this part 1042 contain provisions that affect both engine manufacturers and others. However, the requirements of this part, other than those of subpart I of this part, are generally addressed to the engine manufacturer for freshly manufactured marine engines or other certificate holders. The term ''you'' generally means the engine manufacturer, as defined in § 1042.901, especially for issues related to certification (including production-line testing, reporting, etc.).

### § 1042.5 Exclusions.

This part does not apply to the following marine engines:

(a) *Foreign vessels.* The requirements and prohibitions of this part do not apply to engines installed on foreign vessels, as defined in § 1042.901.

(b) *Hobby engines.* Engines with per-cylinder displacement below 50 cubic centimeters are not subject to the provisions of this part 1042.

### § 1042.10 Organization of this part.

This part 1042 is divided into the following subparts:

(a) Subpart A of this part defines the applicability of this part 1042 and gives an overview of regulatory requirements.

(b) Subpart B of this part describes the emission standards and other requirements that must be met to certify engines under this part. Note that § 1042.145 discusses certain interim requirements and compliance provisions that apply only for a limited time.

(c) Subpart C of this part describes how to apply for a certificate of conformity.

(d) Subpart D of this part describes general provisions for testing production-line engines.

(e) Subpart E of this part describes general provisions for testing in-use engines.

(f) Subpart F of this part and 40 CFR 1065 describe how to test your engines.

(g) Subpart G of this part and 40 CFR part 1068 describe requirements, prohibitions, and other provisions that apply to engine manufacturers, vessel manufacturers, owners, operators, rebuilders, and all others.

(h) Subpart H of this part describes how you may generate and use emission credits to certify your engines.

(i) Subpart I of this part describes how these regulations apply for remanufactured engines.

(j) Subpart J of this part contains definitions and other reference information.

### § 1042.15 Do any other regulation parts apply to me?

(a) The evaporative emission requirements of part 1060 of this chapter apply to vessels that include installed engines fueled with a volatile liquid fuel as specified in § 1042.107. (**Note:** Conventional diesel fuel is not considered to be a volatile liquid fuel.)

(b) Part 1065 of this chapter describes procedures and equipment specifications for testing engines. Subpart F of this part 1042 describes how to apply the provisions of part 1065 of this chapter to determine whether engines meet the emission standards in this part.

(c) The requirements and prohibitions of part 1068 of this chapter apply to everyone, including anyone who manufactures, imports, installs, owns, operates, or rebuilds any of the engines subject to this part 1042, or vessels containing these engines. Part 1068 of this chapter describes general provisions, including these seven areas:

(1) Prohibited acts and penalties for engine manufacturers, vessel manufacturers, and others.

(2) Rebuilding and other aftermarket changes.

(3) Exclusions and exemptions for certain engines.

(4) Importing engines.

(5) Selective enforcement audits of your production.

(6) Defect reporting and recall.

(7) Procedures for hearings.

(d) Other parts of this chapter apply if referenced in this part.

## Subpart B—Emission Standards and Related Requirements

### § 1042.101 Exhaust emission standards.

(a) *Duty-cycle standards.* Exhaust emissions from your engines may not exceed emission standards, as follows:

(1) Measure emissions using the test procedures described in subpart F of this part.

(2) The following CO emission standards in this paragraph (a)(2) apply starting with the applicable model year identified in § 1042.1:

(i) 8.0 g/kW-hr for engines below 8 kW.

(ii) 6.6 g/kW-hr for engines at or above 8 kW and below 19 kW.

(iii) 5.5 g/kW-hr for engines at or above 19 kW and below 37 kW.

(iv) 5.0 g/kW-hr for engines at or above 37 kW.

(3) Except as described in paragraphs (a)(4) and (5) of this section, the Tier 3 standards for PM and $NO_X$+HC emissions are described in the following tables:

BILLING CODE 6560–50–P

Table 1 to §1042.101— Tier 3 Standards for Category 1 Engines Below 3700 kW [a]

| Power Density and Application | Displacement (L/cyl) | Maximum Engine Power | Model Year | PM (g/kW-hr) | NOx+HC (g/kW-hr) |
|---|---|---|---|---|---|
| all | disp.< 0.9 | kW <19 | 2009+ | 0.40 | 7.5 |
| | | 19 ≤ kW < 75 | 2009-2013 | 0.30 | 7.5 |
| | | | 2014+ | 0.30 | 4.7 |
| Commercial engines with kW/L ≤ 35 [b] | disp.< 0.9 | kW ≥ 75 | 2012+ | 0.14 | 5.4 |
| | 0.9 ≤ disp. < 1.2 | all | 2013+ | 0.12 | 5.4 |
| | 1.2 ≤ disp. < 2.5 | kW < 600 | 2014-2017 | 0.11 | 5.6 |
| | | | 2018+ | 0.10 | 5.6 |
| | | kW ≥ 600 | 2014+ | 0.11 | 5.6 |
| | 2.5 ≤ disp. < 3.5 | kW < 600 | 2013-2017 | 0.11 | 5.6 |
| | | | 2018+ | 0.10 | 5.6 |
| | | kW ≥ 600 | 2013+ | 0.11 | 5.6 |
| | 3.5 ≤ disp.< 7.0 | kW < 600 | 2012-2017 | 0.11 | 5.8 |
| | | | 2018+ | 0.10 | 5.8 |
| | | kW ≥ 600 | 2012+ | 0.11 | 5.8 |
| Commercial engines with kW/L > 35 and all recreational engines | disp. < 0.9 | kW ≥ 75 | 2012+ | 0.15 | 5.8 |
| | 0.9 ≤ disp. < 1.2 | all | 2013+ | 0.14 | 5.8 |
| | 1.2 ≤ disp. < 2.5 | | 2014+ | 0.12 | 5.8 |
| | 2.5 ≤ disp. < 3.5 | | 2013+ | 0.12 | 5.8 |
| | 3.5 ≤ disp. < 7.0 | | 2012+ | 0.11 | 5.8 |

[a] No Tier 3 standards apply for commercial Category 1 engines at or above 3700 kW. See §1042.1(c) and paragraph (a)(7) of this section for the standards that apply for these engines.
[b] The applicable NOx+HC standards specified for Tier 2 engines in Appendix I of this part continue to apply instead of the values noted in the table for commercial engines at or above 2000 kW. FELs for these engines may not be higher than the Tier 1 NOx standard specified in Appendix I of this part.

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TABLE 2 TO § 1042.101.—TIER 3 STANDARDS FOR CATEGORY 2 ENGINES BELOW 3700 kW [a]

| Displacement (L/cyl) | Maximum engine power | Model year | PM (g/kW-hr) | $NO_X$+HC (g/kW-hr) |
|---|---|---|---|---|
| 7.0 ≤ disp. < 15.0 | kW < 2000 | 2013+ | 0.14 | 6.2 |
| | 2000 ≤ kW < 3700 | 2013+ | 0.14 | [b] 7.8 |
| 15.0 ≤ disp. < 20.0 [c] | kW < 2000 | 2014+ | 0.34 | 7.0 |
| 20.0 ≤ disp. < 25.0 [c] | kW < 2000 | 2014+ | 0.27 | 9.8 |
| 25.0 ≤ disp. < 30.0 [c] | kW < 2000 | 2014+ | 0.27 | 11.0 |

[a] No Tier 3 standards apply for Category 2 engines at or above 3700 kW. See § 1042.1(c) and paragraph (a)(7) of this section for the standards that apply for these engines.
[b] For engines subject to the 7.8 g/kW-hr $NO_X$+HC standard, FELs may not be higher than the Tier 1 $NO_X$ standard specified in Appendix I of this part.
[c] No Tier 3 standards apply for Category 2 engines with per-cylinder displacement above 15.0 liters if maximum engine power is at or above 2000 kW. See § 1042.1(c) and paragraph (a)(7) of this section for the standards that apply for these engines.

(4) For Tier 3 engines at or above 19 kW and below 75 kW with displacement below 0.9 L/cyl, you may alternatively certify some or all of your engine families to a PM emission standard of 0.20 g/kW-hr and a $NO_X$+HC emission standard of 5.8 g/kW-hr for 2014 and later model years.

(5) Starting with the 2014 model year, recreational marine engines at or above 3700 kW (with any displacement) must be certified under this part 1042 to the Tier 3 standards specified in this section for 3.5 to 7.0 L/cyl recreational marine engines.

(6) Interim Tier 4 PM standards apply for 2014 and 2015 model year engines between 2000 and 3700 kW as specified in this paragraph (a)(6). These engines are considered to be Tier 4 engines.

(i) For Category 1 engines, the Tier 3 PM standards from Table 1 to this section continue to apply. PM FELs for these engines may not be higher than the applicable Tier 2 PM standards specified in Appendix I of this part.

(ii) For Category 2 engines with per-cylinder displacement below 15.0 liters, the Tier 3 PM standards from Table 2 to this section continue to apply. PM FELs for these engines may not be higher than 0.27 g/kW-hr.

(iii) For Category 2 engines with per-cylinder displacement at or above 15.0 liters, the PM standard is 0.34 g/kW-hr for engines at or above 2000 kW and

below 3300 kW, and 0.27 g/kW-hr for engines at or above 3300 kW and below 3700 kW. PM FELs for these engines may not be higher than 0.50 g/kW-hr.

(7) Except as described in paragraph (a)(8) of this section, the Tier 4 standards for PM, $NO_X$, and HC emissions are described in the following table:

TABLE 3 TO § 1042.101.—TIER 4 STANDARDS FOR CATEGORY 2 AND COMMERCIAL CATEGORY 1 ENGINES ABOVE 600 KW

| Maximum engine power | Displacement (L/cyl) | Model year | PM (g/kW-hr) | $NO_X$ (g/kW-hr) | HC (g/kW-hr) |
|---|---|---|---|---|---|
| 600 ≤ kW < 1400 | all | 2017+ | 0.04 | 1.8 | 0.19 |
| 1400 ≤ kW < 2000 | all | 2016+ | 0.04 | 1.8 | 0.19 |
| 2000 ≤ kW < 3700 [a] | all | 2014+ | 0.04 | 1.8 | 0.19 |
| kW ≥ 3700 | disp. <15.0 | 2014–2015 | 0.12 | 1.8 | 0.19 |
| | 15.0 ≤ disp.< 30.0 | 2014–2015 | 0.25 | 1.8 | 0.19 |
| | all | 2016+ | 0.06 | 1.8 | 0.19 |

[a] See paragraph (a)(6) of this section for interim PM standards that apply for model years 2014 and 2015 for engines between 2000 and 3700 kW. The Tier 4 $NO_X$ FEL cap for engines at or above 2000 kW and below 3700 kW is 7.0 g/kW-hr. Starting in the 2016 model year, the Tier 4 PM FEL cap for engines at or above 2000 kW and below 3700 kW is 0.34 g/kW-hr.

(8) The following optional provisions apply for complying with the Tier 3 and Tier 4 standards specified in paragraphs (a)(3) and (6) of this section:

(i) You may use $NO_X$ credits accumulated through the ABT program to certify Tier 4 engines to a $NO_X$+HC emission standard of 1.9 g/kW-hr instead of the $NO_X$ and HC standards that would otherwise apply by certifying your family to a $NO_X$+HC FEL. Calculate the $NO_X$ credits needed as specified in subpart H of this part using the $NO_X$+HC emission standard and FEL in the calculation instead of the otherwise applicable $NO_X$ standard and FEL. You may not generate credits relative to the alternate standard or certify to the standard without using credits.

(ii) For engines below 1000 kW, you may delay complying with the Tier 4 standards in the 2017 model year for up to nine months, but you must comply no later than October 1, 2017.

(iii) For engines at or above 3700 kW, you may delay complying with the Tier 4 standards in the 2016 model year for up to twelve months, but you must comply no later than December 31, 2016.

(iv) For Category 2 engines at or above 1400 kW, you may alternatively comply with the Tier 3 and Tier 4 standards specified in Table 4 of this section instead of the $NO_X$, HC, $NO_X$+HC, and PM standards specified in paragraphs (a)(3) and (6) of this section. The CO standards specified in paragraph (a)(2) of this section apply without regard to whether you choose this option. If you choose this option, you must do so for all engines at or above 1400 kW in the same displacement category (that is, 7–15, 15–20, 20–25, or 25–30 liters per cylinder) in model years 2012 through 2015.

TABLE 4 TO § 1042.101.—OPTIONAL TIER 3 AND TIER 4 STANDARDS FOR CATEGORY 2 ENGINES AT OR ABOVE 1400 KW

| Tier | Maximum engine power | Model year | PM (g/kW-hr) | $NO_X$ (g/kW-hr) | HC (g/kW-hr) |
|---|---|---|---|---|---|
| Tier 3 | kW ≥ 1400 | 2012–2014 | 0.14 | 7.8 $NO_X$+HC | |
| Tier 4 | 1400 ≤ kW < 3700 | 2015 | 0.04 | 1.8 | 0.19 |
| | kW ≥ 3700 | 2015 | 0.06 | 1.8 | 0.19 |

(b) *Averaging, banking, and trading.* You may generate or use emission credits under the averaging, banking, and trading (ABT) program as described in subpart H of this part for demonstrating compliance with $NO_X$, $NO_X$+HC, and PM emission standards for Category 1 and Category 2 engines. You may also use $NO_X$ or $NO_X$+HC emission credits to comply with the alternate $NO_X$+HC standard in paragraph (a)(8)(i) of this section. Generating or using emission credits requires that you specify a family emission limit (FEL) for each pollutant you include in the ABT program for each engine family. These FELs serve as the emission standards for the engine family with respect to all required testing instead of the standards specified in paragraph (a) of this section. The FELs determine the not-to-exceed standards for your engine family, as specified in paragraph (c) of this section. Unless otherwise specified, the following FEL caps apply:

(1) FELs for Tier 3 engines may not be higher than the applicable Tier 2 standards specified in Appendix I of this part.

(2) FELs for Tier 4 engines may not be higher than the applicable Tier 3 standards specified in paragraph (a)(3) of this section.

(c) *Not-to-exceed standards.* Except as noted in § 1042.145(e), exhaust emissions from all engines subject to the requirements of this part may not exceed the not-to-exceed (NTE) standards as follows:

(1) Use the following equation to determine the NTE standards:

(i) NTE standard for each pollutant = STD × M.

Where:

STD = The standard specified for that pollutant in this section if you certify without using ABT for that pollutant; or the FEL for that pollutant if you certify using ABT.

M = The NTE multiplier for that pollutant.

(ii) Round each NTE standard to the same number of decimal places as the emission standard.

(2) Determine the applicable NTE zone and subzones as described in § 1042.515. Determine NTE multipliers for specific zones and subzones and pollutants as follows:

(i) For commercial marine engines certified using the duty cycle specified in § 1042.505(b)(1), except for variable-speed propulsion marine engines used

with controllable-pitch propellers or with electrically coupled propellers, apply the following NTE multipliers:

(A) Subzone 1: 1.2 for Tier 3 $NO_X$+HC standards.

(B) Subzone 1: 1.5 for Tier 4 standards and Tier 3 PM and CO standards.

(C) Subzone 2: 1.5 for $NO_X$+HC standards.

(D) Subzone 2: 1.9 for PM and CO standards.

(ii) For recreational marine engines certified using the duty cycle specified in § 1042.505(b)(2), except for variable-speed marine engines used with controllable-pitch propellers or with electrically coupled propellers, apply the following NTE multipliers:

(A) Subzone 1: 1.2 for Tier 3 $NO_X$+HC standards.

(B) Subzone 1: 1.5 for Tier 4 standards and Tier 3 PM and CO standards.

(C) Subzones 2 and 3: 1.5 for $NO_X$+HC standards.

(D) Subzones 2 and 3: 1.9 for PM and CO standards.

(iii) For variable-speed marine engines used with controllable-pitch propellers or with electrically coupled propellers that are certified using the duty cycle specified in § 1042.505(b)(1), (2), or (3), apply the following NTE multipliers:

(A) Subzone 1: 1.2 for Tier 3 $NO_X$+HC standards.

(B) Subzone 1: 1.5 for Tier 4 standards and Tier 3 PM and CO standards.

(C) Subzone 2: 1.5 for $NO_X$+HC standards.

(D) Subzone 2: 1.9 for PM and CO standards. However, there is no NTE standard in Subzone 2b for PM emissions if the engine family's applicable standard for PM is at or above 0.07 g/kW-hr.

(iv) For constant-speed engines certified using a duty cycle specified in § 1042.505(b)(3) or (4), apply the following NTE multipliers:

(A) Subzone 1: 1.2 for Tier 3 $NO_X$+HC standards.

(B) Subzone 1: 1.5 for Tier 4 standards and Tier 3 PM and CO standards.

(C) Subzone 2: 1.5 for $NO_X$+HC standards.

(D) Subzone 2: 1.9 for PM and CO standards. However, there is no NTE standard for PM emissions if the engine family's applicable standard for PM is at or above 0.07 g/kW-hr.

(v) For variable-speed auxiliary marine engines certified using the duty cycle specified in § 1042.505(b)(5)(ii) or (iii):

(A) Subzone 1: 1.2 for Tier 3 $NO_X$+HC standards.

(B) Subzone 1: 1.5 for Tier 4 standards and Tier 3 PM and CO standards.

(C) Subzone 2: 1.2 for Tier 3 $NO_X$+HC standards.

(D) Subzone 2: 1.5 for Tier 4 standards and Tier 3 PM and CO standards. However, there is no NTE standard for PM emissions if the engine family's applicable standard for PM is at or above 0.07 g/kW-hr.

(3) The NTE standards apply to your engines whenever they operate within the NTE zone for an NTE sampling period of at least thirty seconds, during which only a single operator demand set point may be selected. Engine operation during a change in operator demand is excluded from any NTE sampling period. There is no maximum NTE sampling period.

(4) Collect emission data for determining compliance with the NTE standards using the procedures described in subpart F of this part.

(5) You may ask us to accept as compliant an engine that does not fully meet specific requirements under the applicable NTE standards where such deficiencies are necessary for safety.

(d) *Fuel types.* The exhaust emission standards in this section apply for engines using the fuel type on which the engines in the engine family are designed to operate.

(1) You must meet the numerical emission standards for hydrocarbons in this section based on the following types of hydrocarbon emissions for engines powered by the following fuels:

(i) Alcohol-fueled engines must comply with Tier 3 HC standards based on THCE emissions and with Tier 4 standards based on NMHCE emissions.

(ii) Natural gas-fueled engines must comply with HC standards based on NMHC emissions.

(iii) Diesel-fueled and other engines must comply with Tier 3 HC standards based on THC emissions and with Tier 4 standards based on NMHC emissions.

(2) Tier 3 and later engines must comply with the exhaust emission standards when tested using test fuels containing 15 ppm or less sulfur (ultra low-sulfur diesel fuel). Manufacturers may use low-sulfur diesel fuel (without request) to certify an engine otherwise requiring an ultra low-sulfur test fuel; however, emissions may not be corrected to account for the effects of using higher sulfur fuel.

(3) Engines designed to operate using residual fuel must comply with the standards and requirements of this part when operated using residual fuel in addition to complying with the requirements of this part when operated using diesel fuel.

(e) *Useful life.* Your engines must meet the exhaust emission standards of this section over their full useful life, expressed as a period in years or hours of engine operation, whichever comes first.

(1) The minimum useful life values are as follows, except as specified by paragraph (e)(2) or (3) of this section:

(i) 10 years or 1,000 hours of operation for recreational Category 1 engines

(ii) 5 years or 3,000 hours of operation for commercial engines below 19 kW.

(iii) 7 years or 5,000 hours of operation for commercial engines at or above 19 kW and below 37kW.

(iv) 10 years or 10,000 hours of operation for commercial Category 1 engines at or above 37 kW.

(v) 10 years or 20,000 hours of operation for Category 2 engines.

(2) Specify a longer useful life in hours for an engine family under either of two conditions:

(i) If you design, advertise, or market your engine to operate longer than the minimum useful life (your recommended hours until rebuild indicates a longer design life).

(ii) If your basic mechanical warranty is longer than the minimum useful life.

(3) You may request in your application for certification that we approve a shorter useful life for an engine family. We may approve a shorter useful life, in hours of engine operation but not in years, if we determine that these engines will rarely operate longer than the shorter useful life. If engines identical to those in the engine family have already been produced and are in use, your demonstration must include documentation from such in-use engines. In other cases, your demonstration must include an engineering analysis of information equivalent to such in-use data, such as data from research engines or similar engine models that are already in production. Your demonstration must also include any overhaul interval that you recommend, any mechanical warranty that you offer for the engine or its components, and any relevant customer design specifications. Your demonstration may include any other relevant information. The useful life value may not be shorter than any of the following:

(i) 1,000 hours of operation.

(ii) Your recommended overhaul interval.

(iii) Your mechanical warranty for the engine.

(f) *Applicability for testing.* The duty-cycle emission standards in this subpart apply to all testing performed according to the procedures in § 1042.505, including certification, production-line, and in-use testing. The not-to-exceed standards apply for all testing

performed according to the procedures of subpart F of this part.

**§ 1042.107 Evaporative emission standards.**

You must design and produce engines fueled with a volatile liquid fuel to minimize evaporative emissions during normal operation, including periods when the engine is shut down. You must also design and produce them to minimize the escape of fuel vapors during refueling. Hoses used to refuel gaseous-fueled engines may not be designed to be bled or vented to the atmosphere under normal operating conditions. No valves or pressure-relief vents may be used on gaseous-fueled engines except as emergency safety devices that do not operate at normal system operating flows and pressures.

**§ 1042.110 Recording reductant use and other diagnostic functions.**

(a) Engines equipped with SCR systems using a reductant other than the engine's fuel must meet the following requirements:

(1) The diagnostic system must monitor reductant quality and tank levels and alert operators to the need to refill the reductant tank before it is empty, or to replace the reductant if it does not meet your concentration specifications. Unless we approve other alerts, use a malfunction-indicator light (MIL) and an audible alarm. You do not need to separately monitor reductant quality if you include an exhaust $NO_X$ sensor (or other sensor) that allows you to determine inadequate reductant quality. However, tank level must be monitored in all cases.

(2) The onboard computer log must record in nonvolatile computer memory all incidents of engine operation with inadequate reductant injection or reductant quality.

(b) If you determine your emission controls have failure modes that may reasonably be expected to affect safety, equip the engines with diagnostic features that will alert the operator to such failures. Use good engineering judgment to alert the operator before the failure occurs.

(c) You may equip your engine with other diagnostic features. If you do, they must be designed to allow us to read and interpret the codes. Note that §§ 1042.115 and 1042.205 require that you provide us any information needed to read, record, and interpret all the information broadcast by an engine's onboard computers and electronic control units.

**§ 1042.115 Other requirements.**

Engines that are required to comply with the emission standards of this part must meet the following requirements:

(a) *Crankcase emissions.* Crankcase emissions may not be discharged directly into the ambient atmosphere from any engine throughout its useful life, except as follows:

(1) Engines may discharge crankcase emissions to the ambient atmosphere if the emissions are added to the exhaust emissions (either physically or mathematically) during all emission testing. If you take advantage of this exception, you must do both of the following things:

(i) Manufacture the engines so that all crankcase emissions can be routed into the applicable sampling systems specified in 40 CFR part 1065.

(ii) Account for deterioration in crankcase emissions when determining exhaust deterioration factors.

(2) For purposes of this paragraph (a), crankcase emissions that are routed to the exhaust upstream of exhaust aftertreatment during all operation are not considered to be discharged directly into the ambient atmosphere.

(b) *Torque broadcasting.* Electronically controlled engines must broadcast their speed and output shaft torque (in newton-meters). Engines may alternatively broadcast a surrogate value for determining torque. Engines must broadcast engine parameters such that they can be read with a remote device, or broadcast them directly to their controller area networks. This information is necessary for testing engines in the field (see § 1042.515).

(c) *EPA access to broadcast information.* If we request it, you must provide us any hardware or tools we would need to readily read, interpret, and record all information broadcast by an engine's on-board computers and electronic control modules. If you broadcast a surrogate parameter for torque values, you must provide us what we need to convert these into torque units. We will not ask for hardware or tools if they are readily available commercially.

(d) *Adjustable parameters.* An operating parameter is not considered adjustable if you permanently seal it or if it is not normally accessible using ordinary tools. The following provisions apply for adjustable parameters:

(1) Category 1 engines that have adjustable parameters must meet all the requirements of this part for any adjustment in the physically adjustable range. We may require that you set adjustable parameters to any specification within the adjustable range during any testing, including certification testing, selective enforcement auditing, or in-use testing.

(2) Category 2 engines that have adjustable parameters must meet all the requirements of this part for any adjustment in the specified adjustable range. You must specify in your application for certification the adjustable range of each adjustable parameter on a new engine to—

(i) Ensure that safe engine operating characteristics are available within that range, as required by section 202(a)(4) of the Clean Air Act (42 U.S.C. 7521(a)(4)), taking into consideration the production tolerances.

(ii) Limit the physical range of adjustability to the maximum extent practicable to the range that is necessary for proper operation of the engine.

(e) *Prohibited controls.* You may not design your engines with emission-control devices, systems, or elements of design that cause or contribute to an unreasonable risk to public health, welfare, or safety while operating. For example, this would apply if the engine emits a noxious or toxic substance it would otherwise not emit, that contributes to such an unreasonable risk.

(f) *Defeat devices.* You may not equip your engines with a defeat device. A defeat device is an auxiliary emission control device that reduces the effectiveness of emission controls under conditions that the engine may reasonably be expected to encounter during normal operation and use. This does not apply to auxiliary emission control devices you identify in your certification application if any of the following is true:

(1) The conditions of concern were substantially included in the applicable duty-cycle test procedures described in subpart F of this part (the portion during which emissions are measured). See paragraph (f)(4) of this section for other conditions.

(2) You show your design is necessary to prevent engine (or vessel) damage or accidents.

(3) The reduced effectiveness applies only to starting the engine.

**§ 1042.120 Emission-related warranty requirements.**

(a) *General requirements.* You must warrant to the ultimate purchaser and each subsequent purchaser that the new engine, including all parts of its emission control system, meets two conditions:

(1) It is designed, built, and equipped so it conforms at the time of sale to the ultimate purchaser with the requirements of this part.

(2) It is free from defects in materials and workmanship that may keep it from meeting these requirements.

(b) *Warranty period.* Your emission-related warranty must be valid for at least as long as the minimum warranty periods listed in this paragraph (b) in hours of operation and years, whichever comes first. You may offer an emission-related warranty more generous than we require. The emission-related warranty for the engine may not be shorter than any published warranty you offer without charge for the engine. Similarly, the emission-related warranty for any component may not be shorter than any published warranty you offer without charge for that component. If an engine has no hour meter, we base the warranty periods in this paragraph (b) only on the engine's age (in years).

The warranty period begins when the engine is placed into service. The following minimum warranty periods apply:

(1) For Category 1 and Category 2 engines, your emission-related warranty must be valid for at least 50 percent of the engine's useful life in hours of operation or a number of years equal to at least 50 percent of the useful life in years, whichever comes first.

(2) [Reserved]

(c) *Components covered.* The emission-related warranty covers all components whose failure would increase an engine's emissions of any pollutant, including those listed in 40 CFR part 1068, Appendix I, and those from any other system you develop to control emissions. The emission-related warranty for freshly manufactured marine engines covers these components even if another company produces the component. Your emission-related warranty does not cover components whose failure would not increase an engine's emissions of any pollutant. For remanufactured engines, your emission-related warranty does not cover used parts that are not replaced during the remanufacture.

(d) *Limited applicability.* You may deny warranty claims under this section if the operator caused the problem through improper maintenance or use, as described in 40 CFR 1068.115.

(e) *Owners manual.* Describe in the owners manual the emission-related warranty provisions from this section that apply to the engine.

**§ 1042.125 Maintenance instructions for Category 1 and Category 2 engines.**

Give the ultimate purchaser of each new engine written instructions for properly maintaining and using the engine, including the emission control system, as described in this section. The maintenance instructions also apply to service accumulation on your emission-data engines as described in § 1042.245 and in 40 CFR part 1065. This section applies only to Category 1 and Category 2 engines.

(a) *Critical emission-related maintenance.* Critical emission-related maintenance includes any adjustment, cleaning, repair, or replacement of critical emission-related components. This may also include additional emission-related maintenance that you determine is critical if we approve it in advance. You may schedule critical emission-related maintenance on these components if you meet the following conditions:

(1) You demonstrate that the maintenance is reasonably likely to be done at the recommended intervals on in-use engines. We will accept scheduled maintenance as reasonably likely to occur if you satisfy any of the following conditions:

(i) You present data showing that any lack of maintenance that increases emissions also unacceptably degrades the engine's performance.

(ii) You present survey data showing that at least 80 percent of engines in the field get the maintenance you specify at the recommended intervals.

(iii) You provide the maintenance free of charge and clearly say so in maintenance instructions for the customer.

(iv) You otherwise show us that the maintenance is reasonably likely to be done at the recommended intervals.

(2) For engines below 130 kW, you may not schedule critical emission-related maintenance more frequently than the following minimum intervals, except as specified in paragraphs (a)(4), (b), and (c) of this section:

(i) For EGR-related filters and coolers, PCV valves, and fuel injector tips (cleaning only), the minimum interval is 1,500 hours.

(ii) For the following components, including associated sensors and actuators, the minimum interval is 3,000 hours: Fuel injectors, turbochargers, catalytic converters, electronic control units, particulate traps, trap oxidizers, components related to particulate traps and trap oxidizers, EGR systems (including related components, but excluding filters and coolers), and other add-on components. For particulate traps, trap oxidizers, and components related to either of these, maintenance is limited to cleaning and repair only.

(3) For Category 1 and Category 2 engines at or above 130 kW, you may not schedule critical emission-related maintenance more frequently than the following minimum intervals, except as specified in paragraphs (a)(4), (b), and (c) of this section:

(i) For EGR-related filters and coolers, PCV valves, and fuel injector tips (cleaning only), the minimum interval is 1,500 hours.

(ii) For the following components, including associated sensors and actuators, the minimum interval is 4500 hours: Fuel injectors, turbochargers, catalytic converters, electronic control units, particulate traps, trap oxidizers, components related to particulate traps and trap oxidizers, EGR systems (including related components, but excluding filters and coolers), and other add-on components. For particulate traps, trap oxidizers, and components related to either of these, maintenance is limited to cleaning and repair only.

(4) We may approve shorter maintenance intervals than those listed in paragraph (a)(3) of this section where technologically necessary.

(5) If your engine family has an alternate useful life under § 1042.101(e) that is shorter than the period specified in paragraph (a)(2) or (a)(3) of this section, you may not schedule critical emission-related maintenance more frequently than the alternate useful life, except as specified in paragraph (c) of this section.

(b) *Recommended additional maintenance.* You may recommend any additional amount of maintenance on the components listed in paragraph (a) of this section, as long as you state clearly that these maintenance steps are not necessary to keep the emission-related warranty valid. If operators do the maintenance specified in paragraph (a) of this section, but not the recommended additional maintenance, this does not allow you to disqualify those engines from in-use testing or deny a warranty claim. Do not take these maintenance steps during service accumulation on your emission-data engines.

(c) *Special maintenance.* You may specify more frequent maintenance to address problems related to special situations, such as atypical engine operation. You must clearly state that this additional maintenance is associated with the special situation you are addressing.

(d) *Noncritical emission-related maintenance.* Subject to the provisions of this paragraph (d), you may schedule any amount of emission-related inspection or maintenance that is not covered by paragraph (a) of this section (that is, maintenance that is neither explicitly identified as critical emission-related maintenance, nor that we approve as critical emission-related maintenance). Noncritical emission-

related maintenance generally includes maintenance on the components we specify in 40 CFR part 1068, Appendix I. You must state in the owners manual that these steps are not necessary to keep the emission-related warranty valid. If operators fail to do this maintenance, this does not allow you to disqualify those engines from in-use testing or deny a warranty claim. Do not take these inspection or maintenance steps during service accumulation on your emission-data engines.

(e) *Maintenance that is not emission-related.* For maintenance unrelated to emission controls, you may schedule any amount of inspection or maintenance. You may also take these inspection or maintenance steps during service accumulation on your emission-data engines, as long as they are reasonable and technologically necessary. This might include adding engine oil, changing air, fuel, or oil filters, servicing engine-cooling systems, and adjusting idle speed, governor, engine bolt torque, valve lash, or injector lash. You may perform this nonemission-related maintenance on emission-data engines at the least frequent intervals that you recommend to the ultimate purchaser (but not intervals recommended for severe service).

(f) *Source of parts and repairs.* State clearly on the first page of your written maintenance instructions that a repair shop or person of the owner's choosing may maintain, replace, or repair emission control devices and systems. Your instructions may not require components or service identified by brand, trade, or corporate name. Also, do not directly or indirectly condition your warranty on a requirement that the engine be serviced by your franchised dealers or any other service establishments with which you have a commercial relationship. You may disregard the requirements in this paragraph (f) if you do one of two things:

(1) Provide a component or service without charge under the purchase agreement.

(2) Get us to waive this prohibition in the public's interest by convincing us the engine will work properly only with the identified component or service.

(g) *Payment for scheduled maintenance.* Owners are responsible for properly maintaining their engines. This generally includes paying for scheduled maintenance. However, manufacturers must pay for scheduled maintenance during the useful life if it meets all the following criteria:

(1) Each affected component was not in general use on similar engines before the applicable dates shown in paragraph (6) of the definition of ''new marine engine'' in § 1042.901.

(2) The primary function of each affected component is to reduce emissions.

(3) The cost of the scheduled maintenance is more than 2 percent of the price of the engine.

(4) Failure to perform the maintenance would not cause clear problems that would significantly degrade the engine's performance.

(h) *Owners manual.* Explain the owner's responsibility for proper maintenance in the owners manual.

### § 1042.130 Installation instructions for vessel manufacturers.

(a) If you sell an engine for someone else to install in a vessel, give the engine installer instructions for installing it consistent with the requirements of this part. Include all information necessary to ensure that an engine will be installed in its certified configuration.

(b) Make sure these instructions have the following information:

(1) Include the heading: ''Emission-related installation instructions''.

(2) State: ''Failing to follow these instructions when installing a certified engine in a vessel violates federal law (40 CFR 1068.105(b)), subject to fines or other penalties as described in the Clean Air Act.''.

(3) Describe the instructions needed to properly install the exhaust system and any other components. Include instructions consistent with the requirements of § 1042.205(u).

(4) Describe any necessary steps for installing the diagnostic system described in § 1042.110.

(5) Describe any limits on the range of applications needed to ensure that the engine operates consistently with your application for certification. For example, if your engines are certified only for constant-speed operation, tell vessel manufacturers not to install the engines in variable-speed applications or modify the governor.

(6) Describe any other instructions to make sure the installed engine will operate according to design specifications in your application for certification. This may include, for example, instructions for installing aftertreatment devices when installing the engines.

(7) State: ''If you install the engine in a way that makes the engine's emission control information label hard to read during normal engine maintenance, you must place a duplicate label on the vessel, as described in 40 CFR 1068.105.''.

(8) Describe any vessel labeling requirements specified in § 1042.135.

(c) You do not need installation instructions for engines you install in your own vessels.

(d) Provide instructions in writing or in an equivalent format. For example, you may post instructions on a publicly available Web site for downloading or printing. If you do not provide the instructions in writing, explain in your application for certification how you will ensure that each installer is informed of the installation requirements.

### § 1042.135 Labeling.

(a) Assign each engine a unique identification number and permanently affix, engrave, or stamp it on the engine in a legible way.

(b) At the time of manufacture, affix a permanent and legible label identifying each engine. The label must be—

(1) Attached in one piece so it is not removable without being destroyed or defaced.

(2) Secured to a part of the engine needed for normal operation and not normally requiring replacement.

(3) Durable and readable for the engine's entire life.

(4) Written in English.

(c) The label must—

(1) Include the heading ''EMISSION CONTROL INFORMATION''.

(2) Include your full corporate name and trademark. You may identify another company and use its trademark instead of yours if you comply with the provisions of § 1042.640.

(3) Include EPA's standardized designation for the engine family (and subfamily, where applicable).

(4) Identify all the emission standards that apply to the engine (or FELs, if applicable). If you do not declare an FEL under subpart H of this part, you may alternatively state the engine's category, displacement (in liters or L/cyl), maximum engine power (in kW), and power density (in kW/L) as needed to determine the emission standards for the engine family. You may specify displacement, maximum engine power, or power density as a range consistent with the ranges listed in § 1042.101. See § 1042.140 for descriptions of how to specify per-cylinder displacement, maximum engine power, and power density.

(5) State the date of manufacture [DAY (optional), MONTH, and YEAR]. However, you may omit this from the label if you stamp or engrave it on the engine, in which case you must also describe in your application for certification where you will identify the date on the engine.

(6) Identify the application(s) for which the engine family is certified

(such as constant-speed auxiliary, variable-speed propulsion engines used with fixed-pitch propellers, etc.). If the engine is certified as a recreational engine, state: ''INSTALLING THIS RECREATIONAL ENGINE IN A COMMERCIAL VESSEL OR USING THE VESSEL FOR COMMERCIAL PURPOSES MAY VIOLATE FEDERAL LAW SUBJECT TO CIVIL PENALTY (40 CFR 1042.601).''.

(7) For engines requiring ULSD, state: ''ULTRA LOW SULFUR DIESEL FUEL ONLY''.

(8) State the useful life for your engine family if the applicable useful life is based on the provisions of § 1042.101(e)(2) or (3).

(9) Identify the emission control system. Use terms and abbreviations consistent with SAE J1930 (incorporated by reference in § 1042.910). You may omit this information from the label if there is not enough room for it and you put it in the owners manual instead.

(10) State: ''THIS MARINE ENGINE COMPLIES WITH U.S. EPA REGULATIONS FOR [MODEL YEAR].''.

(11) For an engine that can be modified to operate on residual fuel, but has not been certified to meet the standards on such a fuel, include the statement: ''THIS ENGINE IS CERTIFIED FOR OPERATION ONLY WITH DIESEL FUEL. MODIFYING THE ENGINE TO OPERATE ON RESIDUAL OR INTERMEDIATE FUEL MAY BE A VIOLATION OF FEDERAL LAW SUBJECT TO CIVIL PENALTIES.''.

(d) You may add information to the emission control information label as follows:

(1) You may identify other emission standards that the engine meets or does not meet (such as international standards). You may include this information by adding it to the statement we specify or by including a separate statement.

(2) You may add other information to ensure that the engine will be properly maintained and used.

(3) You may add appropriate features to prevent counterfeit labels. For example, you may include the engine's unique identification number on the label.

(e) For engines requiring ULSD, create a separate label with the statement: ''ULTRA LOW SULFUR DIESEL FUEL ONLY''. Permanently attach this label to the vessel near the fuel inlet or, if you do not manufacture the vessel, take one of the following steps to ensure that the vessel will be properly labeled:

(1) Provide the label to each vessel manufacturer and include in the emission-related installation instructions the requirement to place this label near the fuel inlet.

(2) Confirm that the vessel manufacturers install their own complying labels.

(f) You may ask us to approve modified labeling requirements in this part 1042 if you show that it is necessary or appropriate. We will approve your request if your alternate label is consistent with the intent of the labeling requirements of this part.

(g) If you obscure the engine label while installing the engine in the vessel such that the label will be hard to read during normal maintenance, you must place a duplicate label on the vessel. If others install your engine in their vessels in a way that obscures the engine label, we require them to add a duplicate label on the vessel (see 40 CFR 1068.105); in that case, give them the number of duplicate labels they request and keep the following records for at least five years:

(1) Written documentation of the request from the vessel manufacturer.

(2) The number of duplicate labels you send for each family and the date you sent them.

### § 1042.140 Maximum engine power, displacement, and power density.

This section describes how to determine the maximum engine power, displacement, and power density of an engine for the purposes of this part. Note that maximum engine power may differ from the definition of ''maximum test power'' in § 1042.901.

(a) An engine configuration's maximum engine power is the maximum brake power point on the nominal power curve for the engine configuration, as defined in this section. Round the power value to the nearest whole kilowatt.

(b) The nominal power curve of an engine configuration is the relationship between maximum available engine brake power and engine speed for an engine, using the mapping procedures of 40 CFR part 1065, based on the manufacturer's design and production specifications for the engine. This information may also be expressed by a torque curve that relates maximum available engine torque with engine speed.

(c) An engine configuration's per-cylinder displacement is the intended swept volume of each cylinder. The swept volume of the engine is the product of the internal cross-section area of the cylinders, the stroke length, and the number of cylinders. Calculate the engine's intended swept volume from the design specifications for the cylinders using enough significant figures to allow determination of the displacement to the nearest 0.02 liters. Determine the final value by truncating digits to establish the per-cylinder displacement to the nearest 0.1 liters. For example, for an engine with circular cylinders having an internal diameter of 13.0 cm and a 15.5 cm stroke length, the rounded displacement would be: $(13.0/2)^2 \times (\pi) \times (15.5) \div 1000 = 2.0$ liters.

(d) The nominal power curve and intended swept volume must be within the range of the actual power curves and swept volumes of production engines considering normal production variability. If after production begins, it is determined that either your nominal power curve or your intended swept volume does not represent production engines, we may require you to amend your application for certification under § 1042.225.

(e) Throughout this part, references to a specific power value for an engine are based on maximum engine power. For example, the group of engines with maximum engine power above 600 kW may be referred to as engines above 600 kW.

(f) Calculate an engine family's power density in kW/L by dividing the unrounded maximum engine power by the engine's unrounded per-cylinder displacement, then dividing by the number of cylinders. Round the calculated value to the nearest whole number.

### § 1042.145 Interim provisions.

(a) *General.* The provisions in this section apply instead of other provisions in this part for Category 1 and Category 2 engines. This section describes when these interim provisions expire.

(b) *Delayed standards.* Post-manufacturer marinizers that are small-volume engine manufacturers may delay compliance with the Tier 3 standards for engines below 600 kW as follows:

(1) You may delay compliance with the Tier 3 standards for one model year, as long as the engines meet all the requirements that apply to Tier 2 engines.

(2) You may delay compliance with the NTE standards for Tier 3 engines for three model years in addition to the one-year delay specified in paragraph (b)(1) of this section, as long as the engines meet all other Tier 3 requirements for the appropriate model year.

(c) *Part 1065 test procedures.* You must generally use the test procedures specified in subpart F of this part, including the applicable test procedures in 40 CFR part 1065. As specified in this paragraph (c), you may use a

combination of the test procedures specified in this part and the test procedures specified for Tier 2 engines before January 1, 2015. After this date, you must use test procedures only as specified in subpart F of this part.

(1) You may determine maximum test speed for engines below 37 kW as specified in 40 CFR part 89 without request through the 2009 model year.

(2) Before January 1, 2015, you may ask to use some or all of the procedures specified in 40 CFR part 94 (or 40 CFR part 89 for engines below 37 kW) for engines certified under this part 1042. If you ask to rely on a combination of procedures under this paragraph (c)(2), we will approve your request only if you show us that it does not affect your ability to demonstrate compliance with the applicable emission standards. This generally requires that the combined procedures would result in emission measurements at least as high as those that would be measured using the procedures specified in this part. Alternatively, you may demonstrate that the combined effects of the different procedures is small relative to your compliance margin (the degree to which your emissions are below the applicable standards).

(d) [Reserved]

(e) *Delayed compliance with NTE standards.* Engines below 56 kW may delay complying with the NTE standards specified in § 1042.101(c) until the 2013 model year. Engines at or above 56 kW and below 75 kW may delay complying with the NTE standards specified in § 1042.101(c) until the 2012 model year.

(f) *In-use compliance limits.* The provisions of this paragraph (f) apply for the first three model years of the Tier 4 standards. For purposes of determining compliance based on testing other than certification or production-line testing, calculate the applicable in-use compliance limits by adjusting the applicable standards/FELs. The PM adjustment does not apply for engines with a PM standard or FEL above 0.04 g/kW-hr. The $NO_X$ adjustment does not apply for engines with a $NO_X$ FEL above 2.7 g/kW-hr. Add the applicable adjustments in one of the following tables to the otherwise applicable standards and NTE limits. You must specify during certification which add-ons, if any, will apply for your engines.

TABLE 1 TO § 1042.145.—IN-USE ADJUSTMENTS FOR THE FIRST THREE MODEL YEARS OF THE TIER 4 STANDARDS

| Fraction of useful life already used | In-use adjustments (g/kW-hr) | |
|---|---|---|
| | For Tier 4 $NO_X$ standards | For Tier 4 PM standards |
| 0 < hours ≤ 50% of useful life | 0.9 | 0.02 |
| 50 < hours ≤ 75% of useful life | 1.3 | 0.02 |
| hours > 75% of useful life | 1.7 | 0.02 |

TABLE 2 TO § 1042.145.—OPTIONAL IN-USE ADJUSTMENTS FOR THE FIRST THREE MODEL YEARS OF THE TIER 4 STANDARDS

| Fraction of useful life already used | In-use adjustments (g/kW-hr) | |
|---|---|---|
| | For model year 2017 and earlier Tier 4 $NO_X$ standards | For model year 2017 and earlier Tier 4 PM standards |
| 0 < hours ≤ 50% of useful life | 0.3 | 0.05 |
| 50 < hours ≤ 75% of useful life | 0.4 | 0.05 |
| hours > 75% of useful life | 0.5 | 0.05 |

(g) *Deficiencies for NTE standards.* You may ask us to accept as compliant an engine that does not fully meet specific requirements under the applicable NTE standards. Such deficiencies are intended to allow for minor deviations from the NTE standards under limited conditions. We expect your engines to have functioning emission control hardware that allows you to comply with the NTE standards.

(1) Request our approval for specific deficiencies in your application for certification, or before you submit your application. We will not approve deficiencies retroactively to cover engines already certified. In your request, identify the scope of each deficiency and describe any auxiliary emission control devices you will use to control emissions to the lowest practical level, considering the deficiency you are requesting.

(2) We will approve a deficiency only if compliance would be infeasible or unreasonable considering such factors as the technical feasibility of the given hardware and the applicable lead time and production cycles. We may consider other relevant factors.

(3) Our approval applies only for a single model year and may be limited to specific engine configurations. We may approve your request for the same deficiency in the following model year if correcting the deficiency would require unreasonable hardware or software modifications and we determine that you have demonstrated an acceptable level of effort toward complying.

(4) You may ask for any number of deficiencies in the first three model years during which NTE standards apply for your engines. For the next four model years, we may approve up to three deficiencies per engine family. Deficiencies of the same type that apply similarly to different power ratings within a family count as one deficiency per family. We may condition approval of any such additional deficiencies during these four years on any additional conditions we determine to be appropriate. We will not approve deficiencies after the seven-year period specified in this paragraph (g)(4), unless they are related to safety.

## Subpart C—Certifying Engine Families

### § 1042.201 General requirements for obtaining a certificate of conformity.

(a) You must send us a separate application for a certificate of conformity for each engine family. A

certificate of conformity is valid starting with the indicated effective date, but it is not valid for any production after December 31 of the model year for which it is issued. No certificate will be issued after December 31 of the model year.

(b) The application must contain all the information required by this part and must not include false or incomplete statements or information (see § 1042.255).

(c) We may ask you to include less information than we specify in this subpart, as long as you maintain all the information required by § 1042.250.

(d) You must use good engineering judgment for all decisions related to your application (see 40 CFR 1068.5).

(e) An authorized representative of your company must approve and sign the application.

(f) See § 1042.255 for provisions describing how we will process your application.

(g) We may require you to deliver your test engines to a facility we designate for our testing (see § 1042.235(c)).

(h) For engines that become new as a result of substantial modifications or for engines installed on imported vessels that become subject to the requirements of this part, we may specify alternate certification provisions consistent with the intent of this part. See the definition of ''new marine engine'' in § 1042.901.

**§ 1042.205 Application requirements.**

This section specifies the information that must be in your application, unless we ask you to include less information under § 1042.201(c). We may require you to provide additional information to evaluate your application.

(a) Describe the engine family's specifications and other basic parameters of the engine's design and emission controls. List the fuel type on which your engines are designed to operate (for example, ultra low-sulfur diesel fuel). List each distinguishable engine configuration in the engine family. For each engine configuration, list the maximum engine power and the range of values for maximum engine power resulting from production tolerances, as described in § 1042.140.

(b) Explain how the emission control system operates. Describe in detail all system components for controlling exhaust emissions, including all auxiliary emission control devices (AECDs) and all fuel-system components you will install on any production or test engine. Identify the part number of each component you describe. For this paragraph (b), treat as separate AECDs any devices that modulate or activate differently from each other. Include all the following:

(1) Give a general overview of the engine, the emission control strategies, and all AECDs.

(2) Describe each AECD's general purpose and function.

(3) Identify the parameters that each AECD senses (including measuring, estimating, calculating, or empirically deriving the values). Include vessel-based parameters and state whether you simulate them during testing with the applicable procedures.

(4) Describe the purpose for sensing each parameter.

(5) Identify the location of each sensor the AECD uses.

(6) Identify the threshold values for the sensed parameters that activate the AECD.

(7) Describe the parameters that the AECD modulates (controls) in response to any sensed parameters, including the range of modulation for each parameter, the relationship between the sensed parameters and the controlled parameters and how the modulation achieves the AECD's stated purpose. Use graphs and tables, as necessary.

(8) Describe each AECD's specific calibration details. This may be in the form of data tables, graphical representations, or some other description.

(9) Describe the hierarchy among the AECDs when multiple AECDs sense or modulate the same parameter. Describe whether the strategies interact in a comparative or additive manner and identify which AECD takes precedence in responding, if applicable.

(10) Explain the extent to which the AECD is included in the applicable test procedures specified in subpart F of this part.

(11) Do the following additional things for AECDs designed to protect engines or vessels:

(i) Identify the engine and/or vessel design limits that make protection necessary and describe any damage that would occur without the AECD.

(ii) Describe how each sensed parameter relates to the protected components' design limits or those operating conditions that cause the need for protection.

(iii) Describe the relationship between the design limits/parameters being protected and the parameters sensed or calculated as surrogates for those design limits/parameters, if applicable.

(iv) Describe how the modulation by the AECD prevents engines and/or vessels from exceeding design limits.

(v) Explain why it is necessary to estimate any parameters instead of measuring them directly and describe how the AECD calculates the estimated value, if applicable.

(vi) Describe how you calibrate the AECD modulation to activate only during conditions related to the stated need to protect components and only as needed to sufficiently protect those components in a way that minimizes the emission impact.

(c) If your engines are equipped with an engine diagnostic system, explain how it works, describing especially the engine conditions (with the corresponding diagnostic trouble codes) that cause the malfunction-indicator light to go on.

(d) Describe the engines you selected for testing and the reasons for selecting them.

(e) Describe the test equipment and procedures that you used, including the duty cycle(s) and the corresponding engine applications. Also describe any special or alternate test procedures you used.

(f) Describe how you operated the emission-data engine before testing, including the duty cycle and the number of engine operating hours used to stabilize emission levels. Explain why you selected the method of service accumulation. Describe any scheduled maintenance you did.

(g) List the specifications of the test fuel to show that it falls within the required ranges we specify in 40 CFR part 1065.

(h) Identify the engine family's useful life.

(i) Include the maintenance and warranty instructions you will give to the ultimate purchaser of each new engine (see §§ 1042.120 and 1042.125). Describe your plan for meeting warranty obligations under §§ 1042.120.

(j) Include the emission-related installation instructions you will provide if someone else installs your engines in a vessel (see § 1042.130).

(k) Describe your emission control information label (see § 1042.135).

(l) Identify the emission standards and/or FELs to which you are certifying engines in the engine family.

(m) Identify the engine family's deterioration factors and describe how you developed them (see § 1042.245). Present any emission test data you used for this.

(n) State that you operated your emission-data engines as described in the application (including the test procedures, test parameters, and test fuels) to show you meet the requirements of this part.

(o) Present emission data for HC, $NO_X$, PM, and CO on an emission-data engine to show your engines meet emission standards as specified in

§ 1042.101. Show emission figures before and after applying adjustment factors for regeneration and deterioration factors for each pollutant and for each engine. If we specify more than one grade of any fuel type (for example, high-sulfur and low-sulfur diesel fuel), you need to submit test data only for one grade, unless the regulations of this part specify otherwise for your engine.

Include emission results for each mode if you do discrete-mode testing under § 1042.505. Note that §§ 1042.235 and 1042.245 allows you to submit an application in certain cases without new emission data.

(p) For Category 1 and Category 2 engines, state that all the engines in the engine family comply with the applicable not-to-exceed emission standards in § 1042.101 for all normal operation and use when tested as specified in § 1042.515. Describe any relevant testing, engineering analysis, or other information in sufficient detail to support your statement.

(q) [Reserved]

(r) Report all test results, including those from invalid tests, whether or not they were conducted according to the test procedures of subpart F of this part. If you measure $CO_2$, report those emission levels (in g/kW-hr). We may ask you to send other information to confirm that your tests were valid under the requirements of this part and 40 CFR part 1065.

(s) Describe all adjustable operating parameters (see § 1042.115(d)), including production tolerances. Include the following in your description of each parameter:

(1) The nominal or recommended setting.

(2) The intended physically adjustable range.

(3) The limits or stops used to establish adjustable ranges.

(4) For Category 1 engines, information showing why the limits, stops, or other means of inhibiting adjustment are effective in preventing adjustment of parameters on in-use engines to settings outside your intended physically adjustable ranges.

(5) For Category 2 engines, propose a range of adjustment for each adjustable parameter, as described in § 1042.115(d). Include information showing why the limits, stops, or other means of inhibiting adjustment are effective in preventing adjustment of parameters on in-use engines to settings outside your proposed adjustable ranges.

(t) Provide the information to read, record, and interpret all the information broadcast by an engine's onboard computers and electronic control units. State that, upon request, you will give us any hardware, software, or tools we would need to do this. If you broadcast a surrogate parameter for torque values, you must provide us what we need to convert these into torque units. You may reference any appropriate publicly released standards that define conventions for these messages and parameters. Format your information consistent with publicly released standards.

(u) Confirm that your emission-related installation instructions specify how to ensure that sampling of exhaust emissions will be possible after engines are installed in vessels and placed in service. Show how to sample exhaust emissions in a way that prevents diluting the exhaust sample with ambient air.

(v) State whether your certification is limited for certain engines. If this is the case, describe how you will prevent use of these engines in applications for which they are not certified. This applies for engines such as the following:

(1) Constant-speed engines.

(2) Engines used with controllable-pitch propellers.

(3) Recreational engines.

(w) Unconditionally certify that all the engines in the engine family comply with the requirements of this part, other referenced parts of the CFR, and the Clean Air Act.

(x) Include good-faith estimates of U.S.-directed production volumes. Include a justification for the estimated production volumes if they are substantially different than actual production volumes in earlier years for similar models.

(y) Include the information required by other subparts of this part. For example, include the information required by § 1042.725 if you participate in the ABT program.

(z) Include other applicable information, such as information specified in this part or 40 CFR part 1068 related to requests for exemptions.

(aa) Name an agent for service located in the United States. Service on this agent constitutes service on you or any of your officers or employees for any action by EPA or otherwise by the United States related to the requirements of this part.

(bb) The following provisions apply for imported engines:

(1) Describe your normal practice for importing engines. For example, this may include identifying the names and addresses of any agents you have authorized to import your engines. Engines imported by nonauthorized agents are not covered by your certificate.

(2) For engines below 560 kW, identify a test facility in the United States where you can test your engines if we select them for testing under a selective enforcement audit, as specified in 40 CFR part 1068.

### § 1042.210 Preliminary approval.

If you send us information before you finish the application, we will review it and make any appropriate determinations, especially for questions related to engine family definitions, auxiliary emission control devices, deterioration factors, useful life, testing for service accumulation, maintenance, and compliance with not-to-exceed standards. See § 1042.245 for specific provisions that apply for deterioration factors. Decisions made under this section are considered to be preliminary approval, subject to final review and approval. We will generally not reverse a decision where we have given you preliminary approval, unless we find new information supporting a different decision. If you request preliminary approval related to the upcoming model year or the model year after that, we will make best-efforts to make the appropriate determinations as soon as practicable. We will generally not provide preliminary approval related to a future model year more than two years ahead of time.

### § 1042.220 Amending maintenance instructions.

You may amend your emission-related maintenance instructions after you submit your application for certification, as long as the amended instructions remain consistent with the provisions of § 1042.125. You must send the Designated Compliance Officer a written request to amend your application for certification for an engine family if you want to change the emission-related maintenance instructions in a way that could affect emissions. In your request, describe the proposed changes to the maintenance instructions. We will approve your request if we determine that the amended instructions are consistent with maintenance you performed on emission-data engines such that your durability demonstration would remain valid. If operators follow the original maintenance instructions rather than the newly specified maintenance, this does not allow you to disqualify those engines from in-use testing or deny a warranty claim.

(a) If you are decreasing, replacing, or eliminating or any specified maintenance, you may distribute the

new maintenance instructions to your customers 30 days after we receive your request, unless we disapprove your request. We may approve a shorter time or waive this requirement.

(b) If your requested change would not decrease the specified maintenance, you may distribute the new maintenance instructions anytime after you send your request. For example, this paragraph (b) would cover adding instructions to increase the frequency of a maintenance step for engines in severe-duty applications.

(c) You do not need to request approval if you are making only minor corrections (such as correcting typographical mistakes), clarifying your maintenance instructions, or changing instructions for maintenance unrelated to emission control.

**§ 1042.225 Amending applications for certification.**

Before we issue you a certificate of conformity, you may amend your application to include new or modified engine configurations, subject to the provisions of this section. After we have issued your certificate of conformity, you may send us an amended application requesting that we include new or modified engine configurations within the scope of the certificate, subject to the provisions of this section. You must amend your application if any changes occur with respect to any information included in your application.

(a) You must amend your application before you take any of the following actions:

(1) Add an engine configuration to an engine family. In this case, the engine configuration added must be consistent with other engine configurations in the engine family with respect to the criteria listed in § 1042.230.

(2) Change an engine configuration already included in an engine family in a way that may affect emissions, or change any of the components you described in your application for certification. This includes production and design changes that may affect emissions any time during the engine's lifetime.

(3) Modify an FEL for an engine family as described in paragraph (f) of this section.

(b) To amend your application for certification as specified in paragraph (a) of this section, send the Designated Compliance Officer the following information:

(1) Describe in detail the addition or change in the engine model or configuration you intend to make.

(2) Include engineering evaluations or data showing that the amended engine family complies with all applicable requirements. You may do this by showing that the original emission-data engine is still appropriate with respect to showing compliance of the amended family with all applicable requirements.

(3) If the original emission-data engine for the engine family is not appropriate to show compliance for the new or modified engine configuration, include new test data showing that the new or modified engine configuration meets the requirements of this part.

(c) We may ask for more test data or engineering evaluations. You must give us these within 30 days after we request them.

(d) For engine families already covered by a certificate of conformity, we will determine whether the existing certificate of conformity covers your newly added or modified engine. You may ask for a hearing if we deny your request (see § 1042.920).

(e) For engine families already covered by a certificate of conformity, you may start producing the new or modified engine configuration anytime after you send us your amended application and before we make a decision under paragraph (d) of this section. However, if we determine that the affected engines do not meet applicable requirements, we will notify you to cease production of the engines and may require you to recall the engines at no expense to the owner. Choosing to produce engines under this paragraph (e) is deemed to be consent to recall all engines that we determine do not meet applicable emission standards or other requirements and to remedy the nonconformity at no expense to the owner. If you do not provide information required under paragraph (c) of this section within 30 days, you must stop producing the new or modified engines.

(f) You may ask us to approve a change to your FEL in certain cases after the start of production. The changed FEL may not apply to engines you have already introduced into U.S. commerce, except as described in this paragraph (f). If we approve a changed FEL after the start of production, you must include the new FEL on the emission control information label for all engines produced after the change. You may ask us to approve a change to your FEL in the following cases:

(1) You may ask to raise your FEL for your emission family at any time. In your request, you must show that you will still be able to meet the emission standards as specified in subparts B and H of this part. If you amend your application by submitting new test data to include a newly added or modified engine or fuel-system component, as described in paragraph (b)(3) of this section, use the appropriate FELs with corresponding production volumes to calculate your production-weighted average FEL for the model year, as described in subpart H of this part. If you amend your application without submitting new test data, you must use the higher FEL for the entire family to calculate your production-weighted average FEL under subpart H of this part.

(2) You may ask to lower the FEL for your emission family only if you have test data from production engines showing that emissions are below the proposed lower FEL. The lower FEL applies only to engines you produce after we approve the new FEL. Use the appropriate FELs with corresponding production volumes to calculate your production-weighted average FEL for the model year, as described in subpart H of this part.

**§ 1042.230 Engine families.**

(a) For purposes of certification, divide your product line into families of engines that are expected to have similar emission characteristics throughout the useful life as described in this section. You may not group Category 1 and Category 2 engines in the same family. Your engine family is limited to a single model year.

(b) For Category 1 engines, group engines in the same engine family if they are the same in all the following aspects:

(1) The combustion cycle and the fuel with which the engine is intended or designed to be operated.

(2) The cooling system (for example, raw-water vs. separate-circuit cooling).

(3) Method of air aspiration.

(4) Method of exhaust aftertreatment (for example, catalytic converter or particulate trap).

(5) Combustion chamber design.

(6) Nominal bore and stroke.

(7) Number of cylinders (for engines with aftertreatment devices only).

(8) Cylinder arrangement (for engines with aftertreatment devices only).

(9) Method of control for engine operation other than governing (i.e., mechanical or electronic).

(10) Application (commercial or recreational).

(11) Numerical level of the emission standards that apply to the engine, except as allowed under paragraphs (f) and (g) of this section.

(c) For Category 2 engines, group engines in the same engine family if they are the same in all the following aspects:

(1) The combustion cycle (e.g., diesel cycle).

(2) The fuel with which the engine is intended or designed to be operated and the fuel system configuration.

(3) The cooling system (for example, air-cooled or water-cooled), and procedure(s) employed to maintain engine temperature within desired limits (thermostat, on-off radiator fans, radiator shutters, etc.).

(4) The method of air aspiration (turbocharged, supercharged, naturally aspirated, Roots blown).

(5) The turbocharger or supercharger general performance characteristics (e.g., approximate boost pressure, approximate response time, approximate size relative to engine displacement).

(6) The type of air inlet cooler (air-to-air, air-to-liquid, approximate degree to which inlet air is cooled).

(7) The type of exhaust aftertreatment system (oxidation catalyst, particulate trap), and characteristics of the aftertreatment system (catalyst loading, converter size vs. engine size).

(8) The combustion chamber configuration and the surface-to-volume ratio of the combustion chamber when the piston is at top dead center position, using nominal combustion chamber dimensions.

(9) Nominal bore and stroke dimensions.

(10) The location of the piston rings on the piston.

(11) The intake manifold induction port size and configuration.

(12) The exhaust manifold port size and configuration.

(13) The location of the intake and exhaust valves (or ports).

(14) The size of the intake and exhaust valves (or ports).

(15) The approximate intake and exhaust event timing and duration (valve or port).

(16) The configuration of the fuel injectors and approximate injection pressure.

(17) The type of fuel injection system controls (i.e., mechanical or electronic).

(18) The overall injection timing characteristics, or as appropriate ignition timing characteristics (i.e., the deviation of the timing curves from the optimal fuel economy timing curve must be similar in degree).

(19) The type of smoke control system.

(d) [Reserved]

(e) You may subdivide a group of engines that is identical under paragraph (b) or (c) of this section into different engine families if you show the expected emission characteristics are different during the useful life. However, for the purpose of applying small-volume family provisions of this part, we will consider the otherwise applicable engine family criteria of this section.

(f) You may group engines that are not identical with respect to the things listed in paragraph (b) or (c) of this section in the same engine family, as follows:

(1) In unusual circumstances, you may group such engines in the same engine family if you show that their emission characteristics during the useful life will be similar.

(2) If you are a small-volume engine manufacturer, you may group any Category 1 engines into a single engine family or you may group any Category 2 engines into a single engine family. This also applies if you are a post-manufacture marinizer modifying a base engine that has a valid certificate of conformity for any kind of nonroad or heavy-duty highway engine under this chapter.

(3) The provisions of this paragraph (f) do not exempt any engines from meeting the standards and requirements in subpart B of this part.

(g) If you combine engines that are subject to different emission standards into a single engine family under paragraph (f) of this section, you must certify the engine family to the more stringent set of standards for that model year.

### § 1042.235 Emission testing required for a certificate of conformity.

This section describes the emission testing you must perform to show compliance with the emission standards in § 1042.101(a). See § 1042.205(p) regarding emission testing related to the NTE standards. See §§ 1042.240 and 1042.245 and 40 CFR part 1065, subpart E, regarding service accumulation before emission testing.

(a) Select an emission-data engine from each engine family for testing. For engines at or above 560 kW, you may use a development engine that is equivalent in design to the engine being certified. Using good engineering judgment, select the engine configuration most likely to exceed an applicable emission standard over the useful life, considering all exhaust emission constituents and the range of installation options available to vessel manufacturers.

(b) Test your emission-data engines using the procedures and equipment specified in subpart F of this part.

(c) We may measure emissions from any of your test engines or other engines from the engine family, as follows:

(1) We may decide to do the testing at your plant or any other facility. If we do this, you must deliver the test engine to a test facility we designate. The test engine you provide must include appropriate manifolds, aftertreatment devices, electronic control units, and other emission-related components not normally attached directly to the engine block. If we do the testing at your plant, you must schedule it as soon as possible and make available the instruments, personnel, and equipment we need.

(2) If we measure emissions from one of your test engines, the results of that testing become the official emission results for the engine. Unless we later invalidate these data, we may decide not to consider your data in determining if your engine family meets applicable requirements.

(3) Before we test one of your engines, we may set its adjustable parameters to any point within the specified adjustable ranges (see § 1042.115(d)).

(4) Before we test one of your engines, we may calibrate it within normal production tolerances for anything we do not consider an adjustable parameter.

(d) You may ask to use emission data from a previous model year instead of doing new tests, but only if all the following are true:

(1) The engine family from the previous model year differs from the current engine family only with respect to model year or other characteristics unrelated to emissions. You may also ask to add a configuration subject to § 1042.225.

(2) The emission-data engine from the previous model year remains the appropriate emission-data engine under paragraph (b) of this section.

(3) The data show that the emission-data engine would meet all the requirements that apply to the engine family covered by the application for certification. For engines originally tested under the provisions of 40 CFR part 94, you may consider those test procedures to be equivalent to the procedures we specify in subpart F of this part.

(e) We may require you to test a second engine of the same or different configuration in addition to the engine tested under paragraph (b) of this section.

(f) If you use an alternate test procedure under 40 CFR 1065.10 and later testing shows that such testing does not produce results that are equivalent to the procedures specified in subpart F of this part, we may reject data you generated using the alternate procedure.

**§ 1042.240 Demonstrating compliance with exhaust emission standards.**

(a) For purposes of certification, your engine family is considered in compliance with the emission standards in § 1042.101(a) if all emission-data engines representing that family have test results showing deteriorated emission levels at or below these standards. Note that your FELs are considered to be the applicable emission standards with which you must comply if you participate in the ABT program in subpart H of this part.

(b) Your engine family is deemed not to comply if any emission-data engine representing that family has test results showing a deteriorated emission level above an applicable emission standard for any pollutant.

(c) To compare emission levels from the emission-data engine with the applicable emission standards for Category 1 and Category 2 engines, apply deterioration factors to the measured emission levels for each pollutant. Section 1042.245 specifies how to test your engine to develop deterioration factors that represent the deterioration expected in emissions over your engines' full useful life. Your deterioration factors must take into account any available data from in-use testing with similar engines. Small-volume engine manufacturers and post-manufacture marinizers may use assigned deterioration factors that we establish. Apply deterioration factors as follows:

(1) *Additive deterioration factor for exhaust emissions.* Except as specified in paragraph (c)(2) of this section, use an additive deterioration factor for exhaust emissions. An additive deterioration factor is the difference between exhaust emissions at the end of the useful life and exhaust emissions at the low-hour test point. In these cases, adjust the official emission results for each tested engine at the selected test point by adding the factor to the measured emissions. If the deterioration factor is less than zero, use zero. Additive deterioration factors must be specified to one more decimal place than the applicable standard.

(2) *Multiplicative deterioration factor for exhaust emissions.* Use a multiplicative deterioration factor if good engineering judgment calls for the deterioration factor for a pollutant to be the ratio of exhaust emissions at the end of the useful life to exhaust emissions at the low-hour test point. For example, if you use aftertreatment technology that controls emissions of a pollutant proportionally to engine-out emissions, it is often appropriate to use a multiplicative deterioration factor. Adjust the official emission results for each tested engine at the selected test point by multiplying the measured emissions by the deterioration factor. If the deterioration factor is less than one, use one. A multiplicative deterioration factor may not be appropriate in cases where testing variability is significantly greater than engine-to-engine variability. Multiplicative deterioration factors must be specified to one more significant figure than the applicable standard.

(3) *Deterioration factor for crankcase emissions.* If your engine vents crankcase emissions to the exhaust or to the atmosphere, you must account for crankcase emission deterioration, using good engineering judgment. You may use separate deterioration factors for crankcase emissions of each pollutant (either multiplicative or additive) or include the effects in combined deterioration factors that include exhaust and crankcase emissions together for each pollutant.

(d) Collect emission data using measurements to one more decimal place than the applicable standard. Apply the deterioration factor to the official emission result, as described in paragraph (c) of this section, then round the adjusted figure to the same number of decimal places as the emission standard. Compare the rounded emission levels to the emission standard for each emission-data engine. In the case of $NO_X$+HC standards, apply the deterioration factor to each pollutant and then add the results before rounding.

**§ 1042.245 Deterioration factors.**

For Category 1 and Category 2 engines, establish deterioration factors, as described in § 1042.240, to determine whether your engines will meet emission standards for each pollutant throughout the useful life. This section describes how to determine deterioration factors, either with an engineering analysis, with pre-existing test data, or with new emission measurements.

(a) You may ask us to approve deterioration factors for an engine family with established technology based on engineering analysis instead of testing. Engines certified to a $NO_X$+HC standard or FEL greater than the Tier 3 $NO_X$+HC standard are considered to rely on established technology for gaseous emission control, except that this does not include any engines that use exhaust-gas recirculation or aftertreatment. In most cases, technologies used to meet the Tier 1 and Tier 2 emission standards would be considered to be established technology. We must approve your plan to establish a deterioration factor under this paragraph (a) before you submit your application for certification.

(b) You may ask us to approve deterioration factors for an engine family based on emission measurements from similar highway, stationary, or nonroad engines (including locomotive engines or other marine engines) if you have already given us these data for certifying the other engines in the same or earlier model years. Use good engineering judgment to decide whether the two engines are similar. We must approve your plan to establish a deterioration factor under this paragraph (b) before you submit your application for certification. We will approve your request if you show us that the emission measurements from other engines reasonably represent in-use deterioration for the engine family for which you have not yet determined deterioration factors.

(c) If you are unable to determine deterioration factors for an engine family under paragraph (a) or (b) of this section, first get us to approve a plan for determining deterioration factors based on service accumulation and related testing. We will respond to your proposed plan within 45 days of receiving your request. Your plan must involve measuring emissions from an emission-data engine at least three times, which are evenly spaced over the service-accumulation period unless we specify otherwise, such that the resulting measurements and calculations will represent the deterioration expected from in-use engines over the full useful life. You may use extrapolation to determine deterioration factors once you have established a trend of changing emissions with age for each pollutant. You may use an engine installed in a vessel to accumulate service hours instead of running the engine only in the laboratory. You may perform maintenance on emission-data engines as described in § 1042.125 and 40 CFR part 1065, subpart E.

(d) Include the following information in your application for certification:

(1) If you determine your deterioration factors based on test data from a different engine family, explain why this is appropriate and include all the emission measurements on which you base the deterioration factor.

(2) If you determine your deterioration factors based on engineering analysis, explain why this is appropriate and include a statement that all data, analyses, evaluations, and other information you used are available for our review upon request.

(3) If you do testing to determine deterioration factors, describe the form and extent of service accumulation, including a rationale for selecting the service-accumulation period and the method you use to accumulate hours.

### § 1042.250 Recordkeeping and reporting.

(a) If you produce engines under any provisions of this part that are related to production volumes, send the Designated Compliance Officer a report within 30 days after the end of the model year describing the total number of engines you produced in each engine family. For example, if you use special provisions intended for small-volume engine manufacturers, report your U.S.-directed production volumes to show that you do not exceed the applicable limits.

(b) Organize and maintain the following records:

(1) A copy of all applications and any summary information you send us.

(2) Any of the information we specify in § 1042.205 that you were not required to include in your application.

(3) A detailed history of each emission-data engine. For each engine, describe all of the following:

(i) The emission-data engine's construction, including its origin and buildup, steps you took to ensure that it represents production engines, any components you built specially for it, and all the components you include in your application for certification.

(ii) How you accumulated engine operating hours (service accumulation), including the dates and the number of hours accumulated.

(iii) All maintenance, including modifications, parts changes, and other service, and the dates and reasons for the maintenance.

(iv) All your emission tests (valid and invalid), including documentation on routine and standard tests, as specified in part 40 CFR part 1065, and the date and purpose of each test.

(v) All tests to diagnose engine or emission control performance, giving the date and time of each and the reasons for the test.

(vi) Any other significant events.

(4) Production figures for each engine family divided by assembly plant.

(5) Keep a list of engine identification numbers for all the engines you produce under each certificate of conformity.

(c) Keep data from routine emission tests (such as test cell temperatures and relative humidity readings) for one year after we issue the associated certificate of conformity. Keep all other information specified in paragraph (a) of this section for eight years after we issue your certificate.

(d) Store these records in any format and on any media, as long as you can promptly send us organized, written records in English if we ask for them. You must keep these records readily available. We may review them at any time.

(e) Send us copies of any engine maintenance instructions or explanations if we ask for them.

### § 1042.255 EPA decisions.

(a) If we determine your application is complete and shows that the engine family meets all the requirements of this part and the Clean Air Act, we will issue a certificate of conformity for your engine family for that model year. We may make the approval subject to additional conditions.

(b) We may deny your application for certification if we determine that your engine family fails to comply with emission standards or other requirements of this part or the Clean Air Act. Our decision may be based on a review of all information available to us. If we deny your application, we will explain why in writing.

(c) In addition, we may deny your application or suspend or revoke your certificate if you do any of the following:

(1) Refuse to comply with any testing or reporting requirements.

(2) Submit false or incomplete information (paragraph (e) of this section applies if this is fraudulent).

(3) Render inaccurate any test data.

(4) Deny us from completing authorized activities (see 40 CFR 1068.20). This includes a failure to provide reasonable assistance.

(5) Produce engines for importation into the United States at a location where local law prohibits us from carrying out authorized activities.

(6) Fail to supply requested information or amend your application to include all engines being produced.

(7) Take any action that otherwise circumvents the intent of the Clean Air Act or this part.

(d) We may void your certificate if you do not keep the records we require or do not give us information as required under this part or the Clean Air Act.

(e) We may void your certificate if we find that you intentionally submitted false or incomplete information.

(f) If we deny your application or suspend, revoke, or void your certificate, you may ask for a hearing (see § 1042.920).

## Subpart D—Testing Production-line Engines

### § 1042.301 General provisions.

(a) If you produce engines that are subject to the requirements of this part, you must test them as described in this subpart, except as follows:

(1) Small-volume engine manufacturers may omit testing under this subpart.

(2) We may exempt Category 1 engine families with a projected U.S.-directed production volume below 100 engines from routine testing under this subpart. Request this exemption in your application for certification and include your basis for projecting a production volume below 100 units. You must promptly notify us if your actual production exceeds 100 units during the model year. If you exceed the production limit or if there is evidence of a nonconformity, we may require you to test production-line engines under this subpart, or under 40 CFR part 1068, subpart D, even if we have approved an exemption under this paragraph (a)(2).

(3) [Reserved]

(b) We may suspend or revoke your certificate of conformity for certain engine families if your production-line engines do not meet the requirements of this part or you do not fulfill your obligations under this subpart (see §§ 1042.325 and 1042.340).

(c) Other requirements apply to engines that you produce. Other regulatory provisions authorize us to suspend, revoke, or void your certificate of conformity, or order recalls for engine families without regard to whether they have passed these production-line testing requirements. The requirements of this subpart do not affect our ability to do selective enforcement audits, as described in 40 CFR part 1068. Individual engines in families that pass these production-line testing requirements must also conform to all applicable regulations of this part and 40 CFR part 1068.

(d) You may use alternate programs or measurement methods for testing production-line engines in the following circumstances:

(1) [Reserved]

(2) You may test your engines using the CumSum procedures specified in 40 CFR part 1045 or 1051 instead of the procedures specified in this subpart, except that the threshold for establishing quarterly or annual test periods is based on U.S.-directed production volumes of 800 instead of 1600. This alternate program does not require prior approval.

(3) You may ask to use another alternate program or measurement

method for testing production-line engines. In your request, you must show us that the alternate program gives equal assurance that your engines meet the requirements of this part. We may waive some or all of this subpart's requirements if we approve your alternate program.

(e) If you certify an engine family with carryover emission data, as described in § 1042.235(d), and these equivalent engine families consistently pass the production-line testing requirements over the preceding two-year period, you may ask for a reduced testing rate for further production-line testing for that family. The minimum testing rate is one engine per engine family. If we reduce your testing rate, we may limit our approval to any number of model years. In determining whether to approve your request, we may consider the number of engines that have failed the emission tests.

(f) We may ask you to make a reasonable number of production-line engines available for a reasonable time so we can test or inspect them for compliance with the requirements of this part. See 40 CFR 1068.27.

**§ 1042.305 Preparing and testing production-line engines.**

This section describes how to prepare and test production-line engines. You must assemble the test engine in a way that represents the assembly procedures for other engines in the engine family. You must ask us to approve any deviations from your normal assembly procedures for other production engines in the engine family.

(a) *Test procedures.* Test your production-line engines using the applicable testing procedures in subpart F of this part to show you meet the duty-cycle emission standards in subpart B of this part. The not-to-exceed standards apply for this testing, but you need not do additional testing to show that production-line engines meet the not-to-exceed standards.

(b) *Modifying a test engine.* Once an engine is selected for testing (see § 1042.310), you may adjust, repair, prepare, or modify it or check its emissions only if one of the following is true:

(1) You document the need for doing so in your procedures for assembling and inspecting all your production engines and make the action routine for all the engines in the engine family.

(2) This subpart otherwise specifically allows your action.

(3) We approve your action in advance.

(c) *Engine malfunction.* If an engine malfunction prevents further emission testing, ask us to approve your decision to either repair the engine or delete it from the test sequence.

(d) *Setting adjustable parameters.* Before any test, we may require you to adjust any adjustable parameter on a Category 1 engine to any setting within its physically adjustable range. We may adjust or require you to adjust any adjustable parameter on a Category 2 engine to any setting within its specified adjustable range.

(1) We may require you to adjust idle speed outside the physically adjustable range as needed, but only until the engine has stabilized emission levels (see paragraph (e) of this section). We may ask you for information needed to establish an alternate minimum idle speed.

(2) We may specify adjustments within the physically adjustable range or the specified adjustable range by considering their effect on emission levels, as well as how likely it is someone will make such an adjustment with in-use engines.

(e) *Stabilizing emission levels.* You may stabilize emission levels (or establish a Green Engine Factor for Category 2 engines) before you test production-line engines, as follows:

(1) You may stabilize emission levels by operating the engine in a way that represents the way production engines will be used, using good engineering judgment, for no more than the greater of two periods:

(i) 300 hours.

(ii) The number of hours you operated your emission-data engine for certifying the engine family (see 40 CFR part 1065, subpart E, or the applicable regulations governing how you should prepare your test engine).

(2) For Category 2 engines, you may ask us to approve a Green Engine Factor for each regulated pollutant for each engine family. Use the Green Engine Factor to adjust measured emission levels to establish a stabilized low-hour emission level.

(f) *Damage during shipment.* If shipping an engine to a remote facility for production-line testing makes necessary an adjustment or repair, you must wait until after the initial emission test to do this work. We may waive this requirement if the test would be impossible or unsafe, or if it would permanently damage the engine. Report to us in your written report under § 1042.345 all adjustments or repairs you make on test engines before each test.

(g) *Retesting after invalid tests.* You may retest an engine if you determine an emission test is invalid under subpart F of this part. Explain in your written report reasons for invalidating any test and the emission results from all tests. If you retest an engine, you may ask us to substitute results of the new tests for the original ones. You must ask us within ten days of testing. We will generally answer within ten days after we receive your information.

**§ 1042.310 Engine selection.**

(a) Determine minimum sample sizes as follows:

(1) For Category 1 engines, the minimum sample size is one engine or one percent of the projected U.S.-directed production volume for all your Category 1 engine families, whichever is greater.

(2) For Category 2 engines, the minimum sample size is one engine or one percent of the projected U.S.-directed production volume for all your Category 2 engine families, whichever is greater.

(b) Randomly select one engine from each engine family early in the model year. For further testing to reach the minimum sample size, randomly select a proportional sample from each engine family, with testing distributed evenly over the course of the model year, unless we specify a different schedule for your tests. For example, we may require you to disproportionately select engines from the early part of a model year for a new engine model that has not previously been subject to production-line testing.

(c) For each engine that fails to meet emission standards, test two engines from the same engine family from the next fifteen engines produced or within seven days, whichever is later. If an engine fails to meet emission standards for any pollutant, count it as a failing engine under this paragraph (c).

(d) Continue testing until one of the following things happens:

(1) You test the number of engines specified in paragraphs (a) and (c) of this section.

(2) The engine family does not comply according to § 1042.315 or you choose to declare that the engine family does not comply with the requirements of this subpart.

(3) You test 30 engines from the engine family.

(e) You may elect to test more randomly chosen engines than we require under this section.

**§ 1042.315 Determining compliance.**

This section describes the pass-fail criteria for the production-line testing requirements. We apply these criteria on an engine-family basis. See § 1042.320 for the requirements that apply to individual engines that fail a production-line test.

(a) Calculate your test results as follows:

(1) *Initial and final test results.* Calculate the test results for each engine. If you do several tests on an engine, calculate the initial test results, then add them together and divide by the number of tests for the final test results on that engine. Include the Green Engine Factor to determine low-hour emission results, if applicable.

(2) *Final deteriorated test results.* Apply the deterioration factor for the engine family to the final test results (see § 1042.240(c)).

(3) *Round deteriorated test results.* Round the results to one more decimal place than the applicable emission standard.

(b) If a production-line engine fails to meet emission standards and you test two additional engines as described in § 1042.310, calculate the average emission level for each pollutant for the three engines. If the calculated average emission level for any pollutant exceeds the applicable emission standard, the engine family fails the production-line testing requirements of this subpart. Tell us within ten working days if this happens. You may request to amend the application for certification to raise the FEL of the engine family as described in § 1042.225(f).

**§ 1042.320 What happens if one of my production-line engines fails to meet emission standards?**

(a) If you have a production-line engine with final deteriorated test results exceeding one or more emission standards (see § 1042.315(a)), the certificate of conformity is automatically suspended for that failing engine. You must take the following actions before your certificate of conformity can cover that engine:

(1) Correct the problem and retest the engine to show it complies with all emission standards.

(2) Include in your written report a description of the test results and the remedy for each engine (see § 1042.345).

(b) You may request to amend the application for certification to raise the FEL of the entire engine family at this point (see § 1042.225).

(c) For catalyst-equipped engines, you may ask us to allow you to exclude an initial failed test if all of the following are true:

(1) The catalyst was in a green condition when tested initially.

(2) The engine met all emission standards when retested after degreening the catalyst.

(3) No additional emission-related maintenance or repair was performed between the initial failed test and the subsequent passing test.

**§ 1042.325 What happens if an engine family fails the production-line testing requirements?**

(a) We may suspend your certificate of conformity for an engine family if it fails under § 1042.315. The suspension may apply to all facilities producing engines from an engine family, even if you find noncompliant engines only at one facility.

(b) We will tell you in writing if we suspend your certificate in whole or in part. We will not suspend a certificate until at least 15 days after the engine family fails. The suspension is effective when you receive our notice.

(c) Up to 15 days after we suspend the certificate for an engine family, you may ask for a hearing (see § 1042.920). If we agree before a hearing occurs that we used erroneous information in deciding to suspend the certificate, we will reinstate the certificate.

(d) Section 1042.335 specifies steps you must take to remedy the cause of the engine family's production-line failure. All the engines you have produced since the end of the last test period are presumed noncompliant and should be addressed in your proposed remedy. We may require you to apply the remedy to engines produced earlier if we determine that the cause of the failure is likely to have affected the earlier engines.

(e) You may request to amend the application for certification to raise the FEL of the entire engine family as described in § 1051.225(f). We will approve your request if it is clear that you used good engineering judgment in establishing the original FEL.

**§ 1042.330 Selling engines from an engine family with a suspended certificate of conformity.**

You may sell engines that you produce after we suspend the engine family's certificate of conformity under § 1042.315 only if one of the following occurs:

(a) You test each engine you produce and show it complies with emission standards that apply.

(b) We conditionally reinstate the certificate for the engine family. We may do so if you agree to recall all the affected engines and remedy any noncompliance at no expense to the owner if later testing shows that the engine family still does not comply.

**§ 1042.335 Reinstating suspended certificates.**

(a) Send us a written report asking us to reinstate your suspended certificate. In your report, identify the reason for noncompliance, propose a remedy for the engine family, and commit to a date for carrying it out. In your proposed remedy include any quality control measures you propose to keep the problem from happening again.

(b) Give us data from production-line testing that shows the remedied engine family complies with all the emission standards that apply.

**§ 1042.340 When may EPA revoke my certificate under this subpart and how may I sell these engines again?**

(a) We may revoke your certificate for an engine family in the following cases:

(1) You do not meet the reporting requirements.

(2) Your engine family fails to comply with the requirements of this subpart and your proposed remedy to address a suspended certificate under § 1042.325 is inadequate to solve the problem or requires you to change the engine's design or emission control system.

(b) To sell engines from an engine family with a revoked certificate of conformity, you must modify the engine family and then show it complies with the requirements of this part.

(1) If we determine your proposed design change may not control emissions for the engine's full useful life, we will tell you within five working days after receiving your report. In this case we will decide whether production-line testing will be enough for us to evaluate the change or whether you need to do more testing.

(2) Unless we require more testing, you may show compliance by testing production-line engines as described in this subpart.

(3) We will issue a new or updated certificate of conformity when you have met these requirements.

**§ 1042.345 Reporting.**

(a) Within 45 days of the end of each quarter in which production-line testing occurs, send us a report with the following information:

(1) Describe any facility used to test production-line engines and state its location.

(2) State the total U.S.-directed production volume and number of tests for each engine family.

(3) Describe how you randomly selected engines.

(4) Describe each test engine, including the engine family's identification and the engine's model year, build date, model number, identification number, and number of hours of operation before testing. Also describe how you developed and applied the Green Engine Factor, if applicable.

(5) Identify how you accumulated hours of operation on the engines and

describe the procedure and schedule you used.

(6) Provide the test number; the date, time and duration of testing; test procedure; initial test results before and after rounding; final test results; and final deteriorated test results for all tests. Provide the emission results for all measured pollutants. Include information for both valid and invalid tests and the reason for any invalidation.

(7) Describe completely and justify any nonroutine adjustment, modification, repair, preparation, maintenance, or test for the test engine if you did not report it separately under this subpart. Include the results of any emission measurements, regardless of the procedure or type of engine.

(8) Report on each failed engine as described in § 1042.320.

(9) Identify when the model year ends for each engine family.

(b) We may ask you to add information to your written report so we can determine whether your new engines conform with the requirements of this subpart.

(c) An authorized representative of your company must sign the following statement:

We submit this report under sections 208 and 213 of the Clean Air Act. Our production-line testing conformed completely with the requirements of 40 CFR part 1042. We have not changed production processes or quality-control procedures for test engines in a way that might affect emission controls. All the information in this report is true and accurate to the best of my knowledge. I know of the penalties for violating the Clean Air Act and the regulations. (Authorized Company Representative)

(d) Send electronic reports of production-line testing to the Designated Compliance Officer using an approved information format. If you want to use a different format, send us a written request with justification for a waiver.

(e) We will send copies of your reports to anyone from the public who asks for them. See § 1042.915 for information on how we treat information you consider confidential.

#### § 1042.350 Recordkeeping.

(a) Organize and maintain your records as described in this section. We may review your records at any time.

(b) Keep records of your production-line testing for eight years after you complete all the testing required for an engine family in a model year. You may use any appropriate storage formats or media.

(c) Keep a copy of the written reports described in § 1042.345.

(d) Keep the following additional records:

(1) A description of all test equipment for each test cell that you can use to test production-line engines.

(2) The names of supervisors involved in each test.

(3) The name of anyone who authorizes adjusting, repairing, preparing, or modifying a test engine and the names of all supervisors who oversee this work.

(4) If you shipped the engine for testing, the date you shipped it, the associated storage or port facility, and the date the engine arrived at the testing facility.

(5) Any records related to your production-line tests that are not in the written report.

(6) A brief description of any significant events during testing not otherwise described in the written report or in this section.

(7) Any information specified in § 1042.345 that you do not include in your written reports.

(e) If we ask, you must give us projected or actual production figures for an engine family. We may ask you to divide your production figures by maximum engine power, displacement, fuel type, or assembly plant (if you produce engines at more than one plant).

(f) Keep a list of engine identification numbers for all the engines you produce under each certificate of conformity. Give us this list within 30 days if we ask for it.

(g) We may ask you to keep or send other information necessary to implement this subpart.

## Subpart E—In-use Testing

#### § 1042.401 General Provisions.

We may perform in-use testing of any engine subject to the standards of this part.

## Subpart F—Test Procedures

#### § 1042.501 How do I run a valid emission test?

(a) Use the equipment and procedures for compression-ignition engines in 40 CFR part 1065 to determine whether Category 1 and Category 2 engines meet the duty-cycle emission standards in § 1042.101(a). Measure the emissions of all regulated pollutants as specified in 40 CFR part 1065. Use the applicable duty cycles specified in § 1042.505.

(b) Section 1042.515 describes the supplemental test procedures for evaluating whether engines meet the not-to-exceed emission standards in § 1042.101(c).

(c) Use the fuels and lubricants specified in 40 CFR part 1065, subpart H, for all the testing we require in this part, except as specified in § 1042.515.

(1) For service accumulation, use the test fuel or any commercially available fuel that is representative of the fuel that in-use engines will use.

(2) For diesel-fueled engines, use the appropriate diesel fuel specified in 40 CFR part 1065, subpart H, for emission testing. Unless we specify otherwise, the appropriate diesel test fuel is the ultra low-sulfur diesel fuel. If we allow you to use a test fuel with higher sulfur levels, identify the test fuel in your application for certification and ensure that the emission control information label is consistent with your selection of the test fuel (see § 1042.135(c)(11)). For Category 2 engines, you may ask to use commercially available diesel fuel similar but not necessarily identical to the applicable fuel specified in 40 CFR part 1065, subpart H; we will approve your request if you show us that it does not affect your ability to demonstrate compliance with the applicable emission standards.

(3) For Category 1 and Category 2 engines that are expected to use a type of fuel (or mixed fuel) other than diesel fuel (such as natural gas, methanol, or residual fuel), use a commercially available fuel of that type for emission testing. If an engine is designed to operate on different fuels, we may (at our discretion) require testing on each fuel. Propose test fuel specifications that take into account the engine design and the properties of commercially available fuels. Describe these test fuel specifications in the application for certification.

(4) [Reserved]

(d) You may use special or alternate procedures to the extent we allow them under 40 CFR 1065.10.

(e) This subpart is addressed to you as a manufacturer, but it applies equally to anyone who does testing for you, and to us when we perform testing to determine if your engines meet emission standards.

(f) Duty-cycle testing is limited to ambient temperatures of 20 to 30 °C. Atmospheric pressure must be between 91.000 and 103.325 kPa, and must be within ±5 percent of the value recorded at the time of the last engine map. Testing may be performed with any ambient humidity level. Correct duty-cycle $NO_X$ emissions for humidity as specified in 40 CFR part 1065.

**§ 1042.505 Testing engines using discrete-mode or ramped-modal duty cycles.**

This section describes how to test engines under steady-state conditions. In some cases, we allow you to choose the appropriate steady-state duty cycle for an engine. In these cases, you must use the duty cycle you select in your application for certification for all testing you perform for that engine family. If we test your engines to confirm that they meet emission standards, we will use the duty cycles you select for your own testing. We may also perform other testing as allowed by the Clean Air Act.

(a) You may perform steady-state testing with either discrete-mode or ramped-modal cycles, as follows:

(1) For discrete-mode testing, sample emissions separately for each mode, then calculate an average emission level for the whole cycle using the weighting factors specified for each mode. Calculate cycle statistics and compare with the established criteria as specified in 40 CFR 1065.514 to confirm that the test is valid. Operate the engine and sampling system as follows:

(i) *Engines with $NO_X$ aftertreatment.* For engines that depend on aftertreatment to meet the $NO_X$ emission standard, operate the engine for 5–6 minutes, then sample emissions for 1–3 minutes in each mode. You may extend the sampling time to improve measurement accuracy of PM emissions, using good engineering judgment. If you have a longer sampling time for PM emissions, calculate and validate cycle statistics separately for the gaseous and PM sampling periods.

(ii) *Engines without $NO_X$ aftertreatment.* For other engines, operate the engine for at least 5 minutes, then sample emissions for at least 1 minute in each mode.

(2) For ramped-modal testing, start sampling at the beginning of the first mode and continue sampling until the end of the last mode. Calculate emissions and cycle statistics the same as for transient testing as specified in 40 CFR part 1065, subpart G.

(b) Measure emissions by testing the engine on a dynamometer with one of the following duty cycles (as specified) to determine whether it meets the emission standards in § 1042.101(a):

(1) *General cycle.* Use the 4-mode duty cycle or the corresponding ramped-modal cycle described in paragraph (a) of Appendix II of this part for commercial propulsion marine engines that are used with (or intended to be used with) fixed-pitch propellers, propeller-law auxiliary engines, and any other engines for which the other duty cycles of this section do not apply. Use this duty cycle also for commercial variable-speed propulsion marine engines that are used with (or intended to be used with) controllable-pitch propellers or with electrically coupled propellers, unless these engines are not intended for sustained operation (e.g., for at least 30 minutes) at all four modes when installed in the vessel.

(2) *Recreational marine engines.* Except as specified in paragraph (b)(3) of this section, use the 5-mode duty cycle or the corresponding ramped-modal cycle described in paragraph (b) of Appendix II of this part for recreational marine engines with maximum engine power at or above 37 kW.

(3) *Controllable-pitch and electrically coupled propellers.* Use the 4-mode duty cycle or the corresponding ramped-modal cycle described in paragraph (c) of Appendix II of this part for constant-speed propulsion marine engines that are used with (or intended to be used with) controllable-pitch propellers or with electrically coupled propellers. Use this duty cycle also for variable-speed propulsion marine engines that are used with (or intended to be used with) controllable-pitch propellers or with electrically coupled propellers if the duty cycles in paragraph (b)(1) and (b)(2) of this section do not apply.

(4) *Constant-speed auxiliary engines.* Use the 5-mode duty cycle or the corresponding ramped-modal cycle described in 40 CFR part 1039, Appendix II, paragraph (a) for constant-speed auxiliary engines.

(5) *Variable-speed auxiliary engines.* (i) Use the duty cycle specified in paragraph (b)(1) of this section for propeller-law auxiliary engines.

(ii) Use the 6-mode duty cycle or the corresponding ramped-modal cycle described in 40 CFR part 1039, Appendix II, paragraph (b) for variable-speed auxiliary engines with maximum engine power below 19 kW that are not propeller-law engines.

(iii) Use the 8-mode duty cycle or the corresponding ramped-modal cycle described in 40 CFR part 1039, Appendix III, paragraph (c) for variable-speed auxiliary engines with maximum engine power at or above 19 kW that are not propeller-law engines.

(c) During idle mode, operate the engine at its warm idle speed as described in 40 CFR part 1065.

(d) For constant-speed engines whose design prevents full-load operation for extended periods, you may ask for approval under 40 CFR 1065.10(c) to replace full-load operation with the maximum load for which the engine is designed to operate for extended periods.

(e) See 40 CFR part 1065 for detailed specifications of tolerances and calculations.

**§ 1042.515 Test procedures related to not-to-exceed standards.**

(a) This section describes the procedures to determine whether your engines meet the not-to-exceed emission standards in § 1042.101(c). These procedures may include any normal engine operation and ambient conditions that the engines may experience in use. Paragraphs (c) through (e) of this section define the limits of what we will consider normal engine operation and ambient conditions.

(b) Measure emissions with one of the following procedures:

(1) Remove the selected engines for testing in a laboratory. You may use an engine dynamometer to simulate normal operation, as described in this section. Use the equipment and procedures specified in 40 CFR part 1065 to conduct laboratory testing.

(2) Test the selected engines while they remain installed in a vessel. Use the equipment and procedures specified in 40 CFR part 1065 subpart J, to conduct field testing. Use fuel meeting the specifications of 40 CFR part 1065, subpart H, or a fuel typical of what you would expect the engine to use in service.

(c) Engine testing may occur under the following ranges of ambient conditions without correcting measured emission levels:

(1) Atmospheric pressure must be between 96.000 and 103.325 kPa, except that manufacturers may test at lower atmospheric pressures if their test facility is located at an altitude that makes it impractical to stay within this range. This pressure range is intended to allow testing under most weather conditions at all altitudes up to 1,100 feet above sea level.

(2) Ambient air temperature must be between 13 and 35 °C (or between 13 °C and 30 °C for engines not drawing intake air directly from a space that could be heated by the engine).

(3) Ambient water temperature must be between 5 and 27 °C.

(4) Ambient humidity must be between 7.1 and 10.7 grams of moisture per kilogram of dry air.

(d) Engine testing may occur at any conditions expected during normal operation but that are outside the conditions described in paragraph (b) of this section, as long as measured values are corrected to be equivalent to the nearest end of the specified range, using

good engineering judgment. Correct $NO_X$ emissions for humidity as specified in 40 CFR part 1065, subpart G.

(e) The sampling period may not begin until the engine has reached stable operating temperatures. For example, this would include only engine operation after starting and after the engine thermostat starts modulating the engine's coolant temperature. The sampling period may not include engine starting.

(f) Apply the NTE standards specified in § 1042.101(c) to an engine family based on the zones and subzones corresponding to specific duty cycles and engine types as defined in Appendix III of this part. For an engine family certified to multiple duty cycles, the broadest applicable NTE zone applies for that family at the time of certification. Whenever an engine family is certified to multiple duty cycles and a specific engine from that family is tested for NTE compliance in use, determine the applicable NTE zone for that engine according to its in-use application. An engine family's NTE zone may be modified as follows:

(1) You may ask us to approve a narrower NTE zone for an engine family at the time of certification, based on information such as how that engine family is expected to normally operate in use. For example, if an engine family is always coupled to a pump or jet drive, the engine might be able to operate only within a narrow range of engine speed and power.

(2) You may ask us to approve a Limited Testing Region (LTR). An LTR is a region of engine operation, within the applicable NTE zone, where you have demonstrated that your engine family operates for no more than 5.0 percent of its normal in-use operation, on a time-weighted basis. You must specify an LTR using boundaries based on engine speed and power (or torque), where the LTR boundaries must coincide with some portion of the boundary defining the overall NTE zone. Any emission data collected within an LTR for a time duration that exceeds 5.0 percent of the duration of its respective NTE sampling period (as defined in paragraph (c)(3) of this section) will be excluded when determining compliance with the applicable NTE standards. Any emission data collected within an LTR for a time duration of 5.0 percent or less of the duration of the respective NTE sampling period will be included when determining compliance with the NTE standards.

(3) You must notify us if you design your engines for normal in-use operation outside the applicable NTE zone. If we learn that normal in-use operation for your engines includes other speeds and loads, we may specify a broader NTE zone, as long as the modified zone is limited to normal in-use operation for speeds greater than 70 percent of maximum test speed and loads greater than 30 percent of maximum power at maximum test speed (or 30 percent of maximum test torque for constant-speed engines).

(4) You may exclude emission data based on ambient or engine parameter limit values as follows:

(i) *$NO_X$ catalytic aftertreatment minimum temperature.* For an engine equipped with a catalytic $NO_X$ aftertreatment system, exclude $NO_X$ emission data that is collected when the exhaust temperature is less than 250 °C, as measured within 30 cm downstream of the last $NO_X$ aftertreatment device. Where there are parallel paths, measure the temperature 30 cm downstream of the last $NO_X$ aftertreatment device in the path with the greatest exhaust flow.

(ii) *Oxidizing aftertreatment minimum temperature.* For an engine equipped with an oxidizing catalytic aftertreatment system, exclude HC, CO, and PM emission data that is collected when the exhaust temperature is less than 250 °C, as measured within 30 cm downstream of the last oxidizing aftertreatment device. Where there are parallel paths, measure the temperature 30 cm downstream of the last oxidizing aftertreatment device in the path with the greatest exhaust flow.

(iii) *Other parameters.* You may request our approval for other minimum or maximum ambient or engine parameter limit values at the time of certification.

(g) For engines equipped with emission controls that include discrete regeneration events, if a regeneration event occurs during the NTE test, the averaging period must be at least as long as the time between the events multiplied by the number of full regeneration events within the sampling period. This requirement applies only for engines that send an electronic signal indicating the start of the regeneration event.

### § 1042.520 What testing must I perform to establish deterioration factors?

Sections 1042.240 and 1042.245 describe the required methods for testing to establish deterioration factors for an engine family.

### § 1042.525 How do I adjust emission levels to account for infrequently regenerating aftertreatment devices?

This section describes how to adjust emission results from engines using aftertreatment technology with infrequent regeneration events. See paragraph (e) of this section for how to adjust ramped-modal testing. See paragraph (f) of this section for how to adjust discrete-mode testing. For this section, ''regeneration'' means an intended event during which emission levels change while the system restores aftertreatment performance. For example, exhaust gas temperatures may increase temporarily to remove sulfur from adsorbers or to oxidize accumulated particulate matter in a trap. For this section, ''infrequent'' refers to regeneration events that are expected to occur on average less than once over the applicable transient duty cycle or ramped-modal cycle, or on average less than once per typical mode in a discrete-mode test.

(a) *Developing adjustment factors.* Develop an upward adjustment factor and a downward adjustment factor for each pollutant based on measured emission data and observed regeneration frequency. Adjustment factors should generally apply to an entire engine family, but you may develop separate adjustment factors for different engine configurations within an engine family. If you use adjustment factors for certification, you must identify the frequency factor, F, from paragraph (b) of this section in your application for certification and use the adjustment factors in all testing for that engine family. You may use carryover or carry-across data to establish adjustment factors for an engine family, as described in § 1042.235(d), consistent with good engineering judgment. All adjustment factors for regeneration are additive. Determine adjustment factors separately for different test segments. For example, determine separate adjustment factors for different modes of a discrete-mode steady-state test. You may use either of the following different approaches for engines that use aftertreatment with infrequent regeneration events:

(1) You may disregard this section if regeneration does not significantly affect emission levels for an engine family (or configuration) or if it is not practical to identify when regeneration occurs. If you do not use adjustment factors under this section, your engines must meet emission standards for all testing, without regard to regeneration.

(2) If your engines use aftertreatment technology with extremely infrequent regeneration and you are unable to apply the provisions of this section, you may ask us to approve an alternate methodology to account for regeneration events.

(b) *Calculating average adjustment factors.* Calculate the average adjustment factor ($EF_A$) based on the following equation:

$$EF_A = (F)(EF_H) + (1 - F)(EF_L)$$

Where:

F = the frequency of the regeneration event during normal in-use operation, expressed in terms of the fraction of equivalent tests during which the regeneration occurs. You may determine F from in-use operating data or running replicate tests. For example, if you observe that the regeneration occurs 125 times during 1000 MW-hrs of operation, and your engine typically accumulates 1 MW-hr per test, F would be (125) ÷ (1000) ÷ (1) = 0.125.

$EF_H$ = Measured emissions from a test segment in which the regeneration occurs.

$EF_L$ = Measured emissions from a test segment in which the regeneration does not occur.

(c) *Applying adjustment factors.* Apply adjustment factors based on whether regeneration occurs during the test run. You must be able to identify regeneration in a way that is readily apparent during all testing.

(1) If regeneration does not occur during a test segment, add an upward adjustment factor to the measured emission rate. Determine the upward adjustment factor (UAF) using the following equation:

$$UAF = EF_A - EF_L$$

(2) If regeneration occurs or starts to occur during a test segment, subtract a downward adjustment factor from the measured emission rate. Determine the downward adjustment factor (DAF) using the following equation:

$$DAF = EF_H - EF_A$$

(d) *Sample calculation.* If $EF_L$ is 0.10 g/kW-hr, $EF_H$ is 0.50 g/kW-hr, and F is 0.1 (the regeneration occurs once for each ten tests), then:

$EF_A$ = (0.1)(0.5 g/kW-hr) + (1.0 − 0.1)(0.1 g/kW-hr) = 0.14 g/kW-hr.

UAF = 0.14 g/kW-hr − 0.10 g/kW-hr = 0.04 g/kW-hr.

DAF = 0.50 g/kW-hr − 0.14 g/kW-hr = 0.36 g/kW-hr.

(e) *Ramped-modal testing.* Develop a single sets of adjustment factors for the entire test. If a regeneration has started but has not been completed when you reach the end of a test, use good engineering judgment to reduce your downward adjustments to be proportional to the emission impact that occurred in the test.

(f) *Discrete-mode testing.* Develop separate adjustment factors for each test mode. If a regeneration has started but has not been completed when you reach the end of the sampling time for a test mode extend the sampling period for that mode until the regeneration is completed.

## Subpart G—Special Compliance Provisions

### § 1042.601 General compliance provisions for marine engines and vessels.

Engine and vessel manufacturers, as well as owners, operators, and rebuilders of engines and vessels subject to the requirements of this part, and all other persons, must observe the provisions of this part, the requirements and prohibitions in 40 CFR part 1068, and the provisions of the Clean Air Act. The provisions of 40 CFR part 1068 apply for compression-ignition marine engines as specified in that part, subject to the following provisions:

(a) The following prohibitions apply with respect to recreational marine engines and recreational vessels:

(1) Installing a recreational marine engine in a vessel that is not a recreational vessel is a violation of 40 CFR 1068.101(a)(1).

(2) For a vessel with an engine that is certified and labeled as a recreational marine engine, using it in a manner inconsistent with its intended use as a recreational vessel violates 40 CFR 1068.101(a)(1), except as allowed by this chapter.

(b) Subpart I of this part describes how the prohibitions of 40 CFR 1068.101(a)(1) apply for remanufactured engines. The provisions of 40 CFR 1068.105 do not allow the installation of a new remanufactured engine in a vessel that is defined as a ''new vessel'' unless the remanufactured engine is subject to the same standards as the standards applicable to freshly manufactured engines of the required model year.

(c) The provisions of 40 CFR 1068.120 apply when rebuilding marine engines, except as specified in subpart I of this part. The following additional requirements also apply when rebuilding marine engines equipped with exhaust aftertreatment:

(1) Follow all instructions from the engine manufacturer and aftertreatment manufacturer for checking, repairing, and replacing aftertreatment components. For example, you must replace the catalyst if the catalyst assembly is stamped with a build date more than ten years ago and the manufacturer's instructions state that catalysts over ten years old must be replaced when the engine is rebuilt.

(2) Measure pressure drop across the catalyst assembly to ensure that it is neither higher nor lower than the manufacturer's specifications and repair or replace exhaust-system components as needed to bring the pressure drop within the manufacturer's specifications.

(3) For engines equipped with exhaust sensors, verify that sensor outputs are within the manufacturer's recommended range and repair or replace any malfunctioning components (sensors, catalysts, or other components).

(d) The provisions of § 1042.635 for the national security exemption apply instead of 40 CFR 1068.225.

(e) For replacement engines, apply the provisions of 40 CFR 1068.240 as described in § 1042.615.

(f) For the purpose of meeting the defect-reporting requirements in 40 CFR 1068.501, if you manufacture other nonroad engines that are substantially similar to your marine engines, you may consider defects using combined marine and non-marine families.

(g) For a marine engine labeled as requiring the use of ultra low-sulfur diesel fuel, is a violation of 40 CFR 1068.101(b)(1) to operate it with higher-sulfur fuel. It is also a violation of 40 CFR 1068.101(b)(1) if an engine installer or vessel manufacturer fails to follow the engine manufacturer's emission-related installation instructions when installing a certified engine in a marine vessel.

### § 1042.605 Dressing engines already certified to other standards for nonroad or heavy-duty highway engines for marine use.

(a) *General provisions.* If you are an engine manufacturer (including someone who marinizes a land-based engine), this section allows you to introduce new marine engines into U.S. commerce if they are already certified to the requirements that apply to compression-ignition engines under 40 CFR parts 85 and 86 or 40 CFR part 89, 92, 1033, or 1039 for the appropriate model year. If you comply with all the provisions of this section, we consider the certificate issued under 40 CFR part 86, 89, 92, 1033, or 1039 for each engine to also be a valid certificate of conformity under this part 1042 for its model year, without a separate application for certification under the requirements of this part 1042.

(b) *Vessel-manufacturer provisions.* If you are not an engine manufacturer, you may install an engine certified for the appropriate model year under 40 CFR part 86, 89, 92, 1033, or 1039 in a marine vessel as long as you do not make any of the changes described in paragraph (d)(3) of this section and you meet the requirements of paragraph (e) of this section. If you modify the non-marine engine in any of the ways

described in paragraph (d)(3) of this section, we will consider you a manufacturer of a new marine engine. Such engine modifications prevent you from using the provisions of this section.

(c) *Liability.* Engines for which you meet the requirements of this section are exempt from all the requirements and prohibitions of this part, except for those specified in this section. Engines exempted under this section must meet all the applicable requirements from 40 CFR parts 85 and 86 or 40 CFR part 89, 92, 1033, or 1039. This paragraph (c) applies to engine manufacturers, vessel manufacturers that use such an engine, and all other persons as if the engine were used in its originally intended application. The prohibited acts of 40 CFR 1068.101(a)(1) apply to these new engines and vessels; however, we consider the certificate issued under 40 CFR part 86, 89, 92, 1033, or 1039 for each engine to also be a valid certificate of conformity under this part 1042 for its model year. If we make a determination that these engines do not conform to the regulations during their useful life, we may require you to recall them under 40 CFR part 85, 89, 92, or 1068.

(d) *Specific criteria and requirements.* If you are an engine manufacturer and meet all the following criteria and requirements regarding your new marine engine, the engine is eligible for an exemption under this section:

(1) You must produce it by marinizing an engine covered by a valid certificate of conformity from one of the following programs:

(i) Heavy-duty highway engines (40 CFR part 86).

(ii) Land-based compression-ignition nonroad engines (40 CFR part 89 or 1039).

(iii) Locomotives (40 CFR part 92 or 1033). To be eligible for dressing under this section, the engine must be from a locomotive certified to standards that are at least as stringent as either the standards applicable to new marine engines or freshly manufactured locomotives in the model year that the engine is being dressed.

(2) The engine must have the label required under 40 CFR part 86, 89, 92, 1033, or 1039.

(3) You must not make any changes to the certified engine that could reasonably be expected to increase its emissions. For example, if you make any of the following changes to one of these engines, you do not qualify for the engine dressing exemption:

(i) Change any fuel system parameters from the certified configuration, or change, remove, or fail to properly install any other component, element of design, or calibration specified in the engine manufacturer's application for certification. This includes aftertreatment devices and all related components.

(ii) Replacing an original turbocharger, except that small-volume engine manufacturers may replace an original turbocharger on a recreational engine with one that matches the performance of the original turbocharger.

(iii) Modify or design the marine engine cooling or aftercooling system so that temperatures or heat rejection rates are outside the original engine manufacturer's specified ranges.

(4) You must show that fewer than 10 percent of the engine family's total sales in the United States are used in marine applications. This includes engines used in any application, without regard to which company manufactures the vessel or equipment. Show this as follows:

(i) If you are the original manufacturer of the engine, base this showing on your sales information.

(ii) In all other cases, you must confirm this based on your best estimate of the original manufacturer's sales information.

(e) *Labeling and documentation.* If you are an engine manufacturer or vessel manufacturer using this exemption, you must do all of the following:

(1) Make sure the original engine label will remain clearly visible after installation in the vessel.

(2) Add a permanent supplemental label to the engine in a position where it will remain clearly visible after installation in the vessel. In your engine label, do the following:

(i) Include the heading: ''Marine Engine Emission Control Information''.

(ii) Include your full corporate name and trademark.

(iii) State: ''This engine was marinized without affecting its emission controls.''.

(iv) State the date you finished marinizing the engine (month and year).

(3) Send the Designated Compliance Officer a signed letter by the end of each calendar year (or less often if we tell you) with all the following information:

(i) Identify your full corporate name, address, and telephone number.

(ii) List the engine models for which you expect to use this exemption in the coming year and describe your basis for meeting the sales restrictions of paragraph (d)(4) of this section.

(iii) State: ''We prepare each listed engine model for marine application without making any changes that could increase its certified emission levels, as described in 40 CFR 1042.605.''.

(f) *Failure to comply.* If your engines do not meet the criteria listed in paragraph (d) of this section, they will be subject to the standards, requirements, and prohibitions of this part 1042 and the certificate issued under 40 CFR part(s) 86, 89, 92, 1033, or 1039 will not be deemed to also be a certificate issued under this part 1042. Introducing these engines into U.S. commerce as marine engines without a valid exemption or certificate of conformity under this part violates the prohibitions in 40 CFR 1068.101(a)(1).

(g) *Data submission.* (1) If you are both the original manufacturer and marinizer of an exempted engine, you must send us emission test data on the appropriate marine duty cycles. You can include the data in your application for certification or in the letter described in paragraph (e)(3) of this section.

(2) If you are the original manufacturer of an exempted engine that is marinized by a post-manufacture marinizer, you may be required to send us emission test data on the appropriate marine duty cycles. If such data are requested you will be allowed a reasonable amount of time to collect the data.

(h) *Participation in averaging, banking and trading.* Engines adapted for marine use under this section may not generate or use emission credits under this part 1042. These engines may generate credits under the ABT provisions in 40 CFR part(s) 86, 89, 92, 1033, or 1039, as applicable. These engines must use emission credits under 40 CFR part(s) 86, 89, 92, 1033, or 1039 as applicable if they are certified to an FEL that exceeds an emission standard.

(i) *Operator requirements.* The requirements specified for vessel manufacturers, owners, and operators in this subpart (including requirements in 40 CFR part 1068) apply to these engines whether they are certified under this part 1042 or another part as allowed by this section.

### § 1042.610 Certifying auxiliary marine engines to land-based standards.

This section applies to auxiliary marine engines that are identical to certified land-based engines. See § 1042.605 for provisions that apply to propulsion marine engines or auxiliary marine engines that are modified for marine applications.

(a) *General provisions.* If you are an engine manufacturer, this section allows you to introduce new marine engines into U.S. commerce if they are already certified to the requirements that apply to compression-ignition engines under

40 CFR part 89 or 1039 for the appropriate model year. If you comply with all the provisions of this section, we consider the certificate issued under 40 CFR part 89 or 1039 for each engine to also be a valid certificate of conformity under this part 1042 for its model year, without a separate application for certification under the requirements of this part 1042.

(b) *Vessel-manufacturer provisions.* If you are not an engine manufacturer, you may install an engine certified for land-based applications in a marine vessel as long as you meet all the qualifying criteria and requirements specified in paragraphs (d) and (e) of this section. If you modify the non-marine engine, we will consider you a manufacturer of a new marine engine. Such engine modifications prevent you from using the provisions of this section.

(c) *Liability.* Engines for which you meet the requirements of this section are exempt from all the requirements and prohibitions of this part, except for those specified in this section. Engines exempted under this section must meet all the applicable requirements from 40 CFR part 89 or 1039. This paragraph (c) applies to engine manufacturers, vessel manufacturers that use such an engine, and all other persons as if the engine were used in its originally intended application. The prohibited acts of 40 CFR 1068.101(a)(1) apply to these new engines and vessels; however, we consider the certificate issued under 40 CFR part 89 or 1039 for each engine to also be a valid certificate of conformity under this part 1042 for its model year. If we make a determination that these engines do not conform to the regulations during their useful life, we may require you to recall them under 40 CFR part 89 or 1068.

(d) *Qualifying criteria.* If you are an engine manufacturer and meet all the following criteria and requirements regarding your new marine engine, the engine is eligible for an exemption under this section:

(1) The marine engine must be identical in all material respects to a land-based engine covered by a valid certificate of conformity for the appropriate model year showing that it meets emission standards for engines of that power rating under 40 CFR part 89 or 1039.

(2) The engines may not be used as propulsion marine engines.

(3) You must show that the number of auxiliary marine engines from the engine family must be smaller than the number of land-based engines from the engine family sold in the United States, as follows:

(i) If you are the original manufacturer of the engine, base this showing on your sales information.

(ii) In all other cases, you must get the original manufacturer of the engine to confirm this based on its sales information.

(e) *Specific requirements.* If you are an engine manufacturer or vessel manufacturer using this exemption, you must do all of the following:

(1) Make sure the original engine label will remain clearly visible after installation in the vessel. This label or a supplemental label must identify that the original certification is valid for auxiliary marine applications.

(2) Send a signed letter to the Designated Compliance Officer by the end of each calendar year (or less often if we tell you) with all the following information:

(i) Identify your full corporate name, address, and telephone number.

(ii) List the engine models you expect to produce under this exemption in the coming year and describe your basis for meeting the sales restrictions of paragraph (d)(3) of this section.

(iii) State: ''We produce each listed engine model for marine application without making any changes that could increase its certified emission levels, as described in 40 CFR 1042.610.''.

(3) If you are the certificate holder, you must describe in your application for certification how you plan to produce engines for both land-based and auxiliary marine applications, including projected sales of auxiliary marine engines to the extent this can be determined. If the projected marine sales are substantial, we may ask for the year-end report of production volumes to include actual auxiliary marine engine sales.

(f) *Failure to comply.* If your engines do not meet the criteria listed in paragraph (d) of this section, they will be subject to the standards, requirements, and prohibitions of this part 1042 and the certificate issued under 40 CFR part 89 or 1039 will not be deemed to also be a certificate issued under this part 1042. Introducing these engines into U.S. commerce as marine engines without a valid exemption or certificate of conformity under this part 1042 violates the prohibitions in 40 CFR 1068.101(a)(1).

(g) *Participation in averaging, banking and trading.* Engines using this exemption may not generate or use emission credits under this part 1042. These engines may generate credits under the ABT provisions in 40 CFR part 89 or 1039, as applicable. These engines must use emission credits under 40 CFR part 89 or 1039 as applicable if they are certified to an FEL that exceeds an emission standard.

(h) *Operator requirements.* The requirements specified for vessel manufacturers, owners, and operators in this subpart (including requirements in 40 CFR part 1068) apply to these engines whether they are certified under this part 1042 or another part as allowed by this section.

**§ 1042.615 Replacement engine exemption.**

For replacement engines, apply the provisions of 40 CFR 1068.240 as described in this section.

(a) This paragraph (a) applies instead of the provisions of 40 CFR 1068.240(b)(3). The prohibitions in 40 CFR 1068.101(a)(1) do not apply for a new replacement engine meeting Tier 3 standards if the engine being replaced is a Tier 3 or earlier engine (this applies where new engines would otherwise be subject to Tier 4 or later standards). For other cases, the prohibitions in 40 CFR 1068.101(a)(1) do not apply to a new replacement engine if all the following conditions are met:

(1) You use good engineering judgment to determine that no engine certified to the current requirements of this part is produced by any manufacturer with the appropriate physical or performance characteristics to repower the vessel.

(2) You make a record of your determination for each replacement engine with the following information and keep these records for eight years:

(i) If you determine that no engine certified to the current requirements of this part is available with the appropriate performance characteristics, explain why certified engines produced by you and other manufacturers cannot be used as a replacement because they are not similar to the engine being replaced in terms of power or speed.

(ii) You may determine that all engines certified to the current requirements of this part that have appropriate performance characteristics are not available because they do not have the appropriate physical characteristics. If this is the case, explain why these certified engines produced by you and other manufacturers cannot be used as a replacement because their weight or dimensions are substantially different than those of the engine being replaced, or because they will not fit within the vessel's engine compartment or engine room.

(iii) In evaluating appropriate physical or performance characteristics, you may account for compatibility with vessel components you would not

otherwise replace when installing a new engine, including transmissions or reduction gears, drive shafts or propeller shafts, propellers, cooling systems, operator controls, or electrical systems for generators or indirect-drive configurations. If you make your determination on this basis, you must identify the vessel components that are incompatible with engines certified to current standards and explain how they are incompatible and why it would be unreasonable to replace them.

(iv) In evaluating appropriate physical or performance characteristics, you may account for compatibility in a set of two or more propulsion engines on a vessel where only one of the engines needs replacement, but only if each engine not needing replacement has operated for less than 75 percent of its applicable useful life in hours or years (see § 1042.101). If any engine not otherwise needing replacement exceeds this 75 percent threshold, your determination must consider replacement of all the propulsion engines.

(v) In addition to the determination specified in paragraph (a)(1) of this section, you must make a separate determination for your own product line addressing every tier of emission standards that is more stringent than the emission standards for the engine being replaced. For example, if the engine being replaced was built before the Tier 1 standards started to apply and engines of that size are currently subject to Tier 3 standards, you must consider whether any Tier 1 or Tier 2 engines that you produce have the appropriate physical and performance characteristics for replacing the old engine; if you can produce a Tier 2 engine with the appropriate physical and performance characteristics, you must use it as the replacement engine.

(3) You must notify us within 30 days after you ship each replacement engine under this section. Your notification must include all the following things and be signed by an authorized representative of your company:

(i) A copy of your records describing how you made the determination described in paragraph (a)(2) of this section for this particular engine.

(ii) The total number of replacement engines you have shipped in the applicable calendar year, from all your marine engine models.

(iii) The following statement:

I certify that the statements and information in the enclosed document are true, accurate, and complete to the best of my knowledge. I am aware that there are significant civil and criminal penalties for submitting false statements and information, or omitting required statements and information.

(4) We may reduce the reporting and recordkeeping requirements in this section.

(b) Modifying a vessel to significantly increase its value within six months after installing a replacement engine produced under this section is a violation of 40 CFR 1068.101(a)(1).

(c) We may void an exemption for an engine if we determine that any of the conditions described in paragraph (a) of this section are not met.

### § 1042.620 Engines used solely for competition.

The provisions of this section apply for new engines and vessels built on or after January 1, 2009.

(a) We may grant you an exemption from the standards and requirements of this part for a new engine on the grounds that it is to be used solely for competition. The requirements of this part, other than those in this section, do not apply to engines that we exempt for use solely for competition. The prohibitions in § 1068.101(a)(1) do not apply to engines exempted under this section.

(b) We will exempt engines that we determine will be used solely for competition. The basis of our determination is described in paragraphs (c) and (d) of this section. Exemptions granted under this section are good for only one model year and you must request renewal for each subsequent model year. We will not approve your renewal request if we determine the engine will not be used solely for competition.

(c) Engines meeting all the following criteria are considered to be used solely for competition:

(1) Neither the engine nor any vessels containing the engine may be displayed for sale in any public dealership or otherwise offered for sale to the general public.

(2) Sale of the vessel in which the engine is installed must be limited to professional racing teams, professional racers, or other qualified racers. Keep records documenting this, such as a letter requesting an exempted engine.

(3) The engine and the vessel in which it is installed must have performance characteristics that are substantially superior to noncompetitive models.

(4) The engines are intended for use only as specified in paragraph (e) of this section.

(d) You may ask us to approve an exemption for engines not meeting the applicable criteria listed in paragraph (c) of this section as long as you have clear and convincing evidence that the engines will be used solely for competition.

(e) Engines will not be considered to be used solely for competition if they are ever used for any recreational or other noncompetitive purpose. This means that their use must be limited to competition events sanctioned by the U.S. Coast Guard or another public organization with authorizing permits for participating competitors. Operation for such engines may include only racing events or trials to qualify for racing events. Authorized attempts to set speed records (and the associated official trials) are also considered racing events. Any use of exempt engines in recreational events, such as poker runs and lobsterboat races, is a violation of 40 CFR 1068.101(b)(4).

(f) You must permanently label engines exempted under this section to clearly indicate that they are to be used only for competition. Failure to properly label an engine will void the exemption for that engine.

(g) If we request it, you must provide us any information we need to determine whether the engines or vessels are used solely for competition. This would include documentation regarding the number of engines and the ultimate purchaser of each engine. Keep these records for five years.

### § 1042.625 Special provisions for engines used in emergency applications.

(a) Except as specified in paragraph (d) of this section, the prohibitions in § 1068.101(a)(1) do not apply to a new engine that is subject to Tier 4 standards if the following conditions are met:

(1) The engine is intended for installation in one of the following vessels or applications:

(i) A lifeboat approved by the U.S. Coast Guard under approval series 160.135 (see for example 46 CFR 199.201(a)(1)), as long as such a vessel is not also used as a launch or tender.

(ii) A rescue boat approved by the U.S. Coast Guard under approval series 160.156 (see for example 46 CFR 199.202(a)).

(iii) Generator sets or other auxiliary equipment that qualify as final emergency power sources under 46 CFR part 112.

(2) The engine meets the Tier 3 emission standards specified in § 1042.101 as specified in 40 CFR 1068.265.

(3) The engine is used only for its intended purpose, as specified on the emission control information label.

(b) Except as specified in paragraph (d) of this section, the prohibitions in § 1068.101(a)(1) do not apply to a new

engine that is subject to Tier 3 standards according to the following provisions:

(1) The engine must be intended for installation in a lifeboat or a rescue boat as specified in paragraph (a)(1)(i) or (ii) of this section.

(2) This exemption is available from the initial effective date for the Tier 3 standards until the engine model (or one of comparable size, weight, and performance) has been certified as complying with the Tier 3 standards and Coast Guard requirements.

(3) The engine must meet the Tier 2 emission standards specified in Appendix I of this part as specified in 40 CFR 1068.265.

(c) If you introduce an engine into U.S. commerce under this section, you must meet the labeling requirements in § 1042.135, but add one of the following statements instead of the compliance statement in § 1042.135(c)(10):

(1) For lifeboats and rescue boats, add the following statement:

THIS ENGINE DOES NOT COMPLY WITH CURRENT U.S. EPA EMISSION STANDARDS UNDER 40 CFR 1042.625 AND IS FOR USE SOLELY IN LIFEBOATS OR RESCUE BOATS (COAST GUARD APPROVAL SERIES 160.135 OR 160.156). INSTALLATION OR USE OF THIS ENGINE IN ANY OTHER APPLICATION MAY BE A VIOLATION OF FEDERAL LAW SUBJECT TO CIVIL PENALTY.

(2) For engines serving as final emergency power sources, add the following statement:

THIS ENGINE DOES NOT COMPLY WITH CURRENT U.S. EPA EMISSION STANDARDS UNDER 40 CFR 1042.625 AND IS FOR USE SOLELY IN EMERGENCY EQUIPMENT REGULATED BY 46 CFR 112. INSTALLATION OR USE OF THIS ENGINE IN ANY OTHER APPLICATION MAY BE A VIOLATION OF FEDERAL LAW SUBJECT TO CIVIL PENALTY.

(d) Introducing into commerce a vessel containing an engine exempted under this section violates the prohibitions in 40 CFR 1068.101(a)(1) where the vessel is not covered by paragraph (a) or (b) of this section, unless it is exempt under a different provision. Similarly, using such an engine or vessel as something other than a lifeboat, rescue boat, or emergency engine as specified in paragraph (a)(1) of this section violates the prohibitions in 40 CFR 1068.101(a)(1), unless it is exempt under a different provision.

### § 1042.630 Personal-use exemption.

This section applies to individuals who manufacture vessels for personal use. If you and your vessel meet all the conditions of this section, the vessel and its engine are considered to be exempt from the standards and requirements of this part that apply to new engines and new vessels. The prohibitions in § 1068.101(a)(1) do not apply to engines exempted under this section. For example, you may install an engine that was not certified as a marine engine.

(a) The vessel may not be manufactured from a previously certified vessel, nor may it be manufactured from a partially complete vessel that is equivalent to a certified vessel. The vessel must be manufactured primarily from unassembled components, but may incorporate some preassembled components. For example, fully preassembled steering assemblies may be used. You may also power the vessel with an engine that was previously used in a highway or land-based nonroad application.

(b) The vessel may not be sold within five years after the date of final assembly.

(c) No individual may manufacture more than one vessel in any ten-year period under this exemption.

(d) You may not use the vessel in any revenue-generating service or for any other commercial purpose, except that you may use a vessel exempt under this section for commercial fishing that you personally do.

(e) This exemption may not be used to circumvent the requirements of this part or the requirements of the Clean Air Act. For example, this exemption would not cover a case in which a person sells an almost completely assembled vessel to another person, who would then complete the assembly. This would be considered equivalent to the sale of the complete new vessel. This section also does not allow engine manufacturers to produce new engines that are exempt from emission standards and it does not provide an exemption from the prohibition against tampering with certified engines.

(f) The vessel must be a vessel that is not classed or subject to Coast Guard inspections or surveys.

### § 1042.635 National security exemption.

The standards and requirements of this part and prohibitions in § 1068.101(a)(1) do not apply to engines exempted under this section.

(a) You are eligible for the exemption for national security only if you are a manufacturer.

(b) Your engine is exempt without a request if it will be used or owned by an agency of the federal government responsible for national defense, where the vessel has armor, permanently attached weaponry, specialized electronic warfare systems, unique stealth performance requirements, and/or unique combat maneuverability requirements.

(c) You may request a national security exemption for engines not meeting the conditions of paragraph (b) of this section, as long as your request is endorsed by an agency of the federal government responsible for national defense. In your request, explain why you need the exemption.

(d) Add a legible label, written in English, to all engines exempted under this section. The label must be permanently secured to a readily visible part of the engine needed for normal operation and not normally requiring replacement, such as the engine block. This label must include at least the following items:

(1) The label heading ''EMISSION CONTROL INFORMATION''.

(2) Your corporate name and trademark.

(3) Engine displacement, family identification, and model year of the engine (as applicable), or whom to contact for further information.

(4) The statement ''THIS ENGINE HAS AN EXEMPTION FOR NATIONAL SECURITY UNDER 40 CFR 1042.635.''.

### § 1042.640 Special provisions for branded engines.

The following provisions apply if you identify the name and trademark of another company instead of your own on your emission control information label, as provided by § 1042.135(c)(2):

(a) You must have a contractual agreement with the other company that obligates that company to take the following steps:

(1) Meet the emission warranty requirements that apply under § 1042.120. This may involve a separate agreement involving reimbursement of warranty-related expenses.

(2) Report all warranty-related information to the certificate holder.

(b) In your application for certification, identify the company whose trademark you will use.

(c) You remain responsible for meeting all the requirements of this chapter, including warranty and defect-reporting provisions.

### § 1042.650 Migratory vessels.

The provisions of this section address concerns for vessel owners related to extended use of vessels with Tier 4 engines outside the United States where ultra low-sulfur diesel fuel is not available.

(a) *Temporary exemption.* A vessel owner may ask us for a temporary

exemption from the tampering prohibition in 40 CFR 1068.101(b)(1) for a vessel if it will operate only in areas outside the United States where ULSD is not available. In your request, describe where the vessel will operate, how long it will operate there, why ULSD will be unavailable, and how you will modify the engine, including its emission controls. If we approve your request, you may modify the engine, but only as needed to disable or remove the emission controls needed for meeting the Tier 4 standards. You must return the engine to its original certified configuration before the vessel returns to the United States to avoid violating the tampering prohibition in 40 CFR 1068.101(b)(1). We may set additional conditions to prevent circumvention of the provisions of this part.

(b) *SOLAS exemption.* We may approve a permanent exemption from the prohibitions in 40 CFR 1068.101(a)(1) for an engine that is subject to Tier 4 standards as described in this paragraph (b).

(1) Vessel owners may ask for a permanent exemption from the Tier 4 standards for an engine that will be installed on vessels that will operate for extended periods outside the United States, provided they demonstrate all of the following are true:

(i) Prior to introduction into service, the vessel will comply with applicable certification requirements for international safety pursuant to the U.S. Coast Guard and the International Convention for the Protection of Life at Sea (SOLAS). The vessel owner must maintain compliance with these requirements for the life of the exempted engine.

(ii) The vessel will be used in areas outside of the United States where ULSD will not be available.

(iii) The mix of vessels with engines certified to Tier 3 or earlier standards in the owner's current fleet and the owner's current business operation of those vessels makes the exemption necessary. Note that because of the large fraction of pre-Tier 4 engines in the fleet prior to 2021, a request for a Tier 4 exemption prior to that year must clearly demonstrate that unusual circumstances apply.

(2) An engine exempted under this paragraph (b) must meet the Tier 3 emission standards described in § 1402.101, subject to the procedural requirements of 40 CFR 1068.265.

(3) If you introduce an engine into U.S. commerce under this section, you must meet the labeling requirements in § 1042.135, but add the following statement instead of the compliance statement in § 1042.135(c)(10):

THIS ENGINE DOES NOT COMPLY WITH CURRENT U.S. EPA EMISSION STANDARDS UNDER 40 CFR 1042.650 AND IS FOR USE SOLELY IN SOLAS VESSELS. INSTALLATION OR USE OF THIS ENGINE IN ANY OTHER APPLICATION MAY BE A VIOLATION OF FEDERAL LAW SUBJECT TO CIVIL PENALTY.

(4) Operating a vessel containing an engine exempted under this paragraph (b) violates the prohibitions in 40 CFR 1068.101(a)(1) if the vessel in not in full compliance with applicable requirements for international safety specified in paragraph (b)(1)(i) of this section.

(c) *Vessels less than 500 gross tons.* In unusual circumstances for vessels less than 500 gross tons, we may approve a vessel owner's request for a permanent exemption from the prohibitions in 40 CFR 1068.101(a)(1) for an engine that is subject to Tier 4 standards that will operate for extended periods outside the United States without it being in compliance with applicable certification requirements for international safety. We may set appropriate additional conditions on such exemptions, and may void the exemption if those conditions are not met.

### § 1042.660 Requirements for vessel manufacturers, owners, and operators.

(a) The provisions of 40 CFR part 94, subpart K, apply to manufacturers, owners, and operators of marine vessels that contain Category 3 engines subject to the provisions of 40 CFR part 94, subpart A.

(b) For vessels equipped with emission controls requiring the use of specific fuels, lubricants, or other fluids, owners and operators must comply with the manufacturer/remanufacturer's specifications for such fluids when operating the vessels. Failure to comply with the requirements of this paragraph is a violation of 40 CFR 1068.101(b)(1).

(c) For vessels equipped with SCR systems requiring the use of urea or other reductants, owners and operators must report to us within 30 days any operation of such vessels without the appropriate reductant. Failure to comply with the requirements of this paragraph is a violation of 40 CFR 1068.101(a)(2).

## Subpart H—Averaging, Banking, and Trading for Certification

### § 1042.701 General provisions.

(a) You may average, bank, and trade (ABT) emission credits for purposes of certification as described in this subpart to show compliance with the standards of this part. Participation in this program is voluntary.

(b) The definitions of subpart J of this part apply to this subpart. The following definitions also apply:

(1) *Actual emission credits* means emission credits you have generated that we have verified by reviewing your final report.

(2) *Applicable emission standard* means an emission standard that is specified in subpart B of this part. Note that for other subparts, ''applicable emission standard'' is defined to also include FELs.

(3) *Averaging set* means a set of engines in which emission credits may be exchanged only with other engines in the same averaging set.

(4) *Broker* means any entity that facilitates a trade of emission credits between a buyer and seller.

(5) *Buyer* means the entity that receives emission credits as a result of a trade.

(6) *Reserved emission credits* means emission credits you have generated that we have not yet verified by reviewing your final report.

(7) *Seller* means the entity that provides emission credits during a trade.

(8) *Standard* means the emission standard that applies under subpart B of this part for engines not participating in the ABT program of this subpart.

(9) *Trade* means to exchange emission credits, either as a buyer or seller.

(c) Emission credits may be exchanged only within an averaging set. Except as specified in paragraph (d) of this section, the following criteria define the applicable averaging sets:

(1) Recreational engines.

(2) Commercial Category 1 engines.

(3) Category 2 engines.

(d) Emission credits generated by commercial Category 1 engine families may be used for compliance by Category 2 engine families. Such credits must be discounted by 25 percent.

(e) You may not use emission credits generated under this subpart to offset any emissions that exceed an FEL or standard. This applies for all testing, including certification testing, in-use testing, selective enforcement audits, and other production-line testing. However, if emissions from an engine exceed an FEL or standard (for example, during a selective enforcement audit), you may use emission credits to recertify the engine family with a higher FEL that applies only to future production.

(f) Engine families that use emission credits for one or more pollutants may not generate positive emission credits for another pollutant.

(g) Emission credits may be used in the model year they are generated or in

future model years. Emission credits may not be used for past model years.

(h) You may increase or decrease an FEL during the model year by amending your application for certification under § 1042.225.

(i) You may use $NO_X$+HC credits to show compliance with a $NO_X$ emission standard or use $NO_X$ credits to show compliance with a $NO_X$+HC emission standard.

**§ 1042.705 Generating and calculating emission credits.**

The provisions of this section apply separately for calculating emission credits for $NO_X$, $NO_X$+HC, or PM.

(a) For each participating family, calculate positive or negative emission credits relative to the otherwise applicable emission standard. Calculate positive emission credits for a family that has an FEL below the standard. Calculate negative emission credits for a family that has an FEL above the standard. Sum your positive and negative credits for the model year before rounding. Round calculated emission credits to the nearest kilogram (kg), using consistent units throughout the following equation:

$$\text{Emission credits (kg)} = (\text{Std} - \text{FEL}) \times (\text{Volume}) \times (\text{Power}) \times (\text{LF}) \times (\text{UL}) \times (10^{-3})$$

Where:

Std = The emission standard, in g/kW-hr.

FEL = The family emission limit for the engine family, in g/kW-hr.

Volume = The number of engines eligible to participate in the averaging, banking, and trading program within the given engine family during the model year, as described in paragraph (c) of this section.

Power = The average value of maximum engine power of all the engine configurations within an engine family, calculated on a production-weighted basis, in kilowatts.

LF = Load factor. Use 0.69 for propulsion marine engines and 0.51 for auxiliary marine engines. We may specify a different load factor if we approve the use of special test procedures for an engine family under 40 CFR 1065.10(c)(2), consistent with good engineering judgment.

UL = The useful life for the given engine family, in hours.

(b) [Reserved]

(c) In your application for certification, base your showing of compliance on projected production volumes for engines whose point of first retail sale is in the United States. As described in § 1042.730, compliance with the requirements of this subpart is determined at the end of the model year based on actual production volumes for engines whose point of first retail sale is in the United States. Do not include any of the following engines to calculate emission credits:

(1) Engines permanently exempted under subpart G of this part or under 40 CFR part 1068.

(2) Exported engines.

(3) Engines not subject to the requirements of this part, such as those excluded under § 1042.5.

(4) [Reserved]

(5) Any other engines, where we indicate elsewhere in this part 1042 that they are not to be included in the calculations of this subpart.

**§ 1042.710 Averaging emission credits.**

(a) Averaging is the exchange of emission credits among your engine families.

(b) You may certify one or more engine families to an FEL above the emission standard, subject to the FEL caps and other provisions in subpart B of this part, if you show in your application for certification that your projected balance of all emission-credit transactions in that model year is greater than or equal to zero.

(c) If you certify an engine family to an FEL that exceeds the otherwise applicable emission standard, you must obtain enough emission credits to offset the engine family's deficit by the due date for the final report required in § 1042.730. The emission credits used to address the deficit may come from your other engine families that generate emission credits in the same model year, from emission credits you have banked, or from emission credits you obtain through trading.

**§ 1042.715 Banking emission credits.**

(a) Banking is the retention of emission credits by the manufacturer generating the emission credits for use in averaging or trading in future model years.

(b) You may use banked emission credits from the previous model year for averaging or trading before we verify them, but we may revoke these emission credits if we are unable to verify them after reviewing your reports or auditing your records.

(c) Reserved credits become actual emission credits only when we verify them in reviewing your final report.

**§ 1042.720 Trading emission credits.**

(a) Trading is the exchange of emission credits between manufacturers. You may use traded emission credits for averaging, banking, or further trading transactions.

(b) You may trade actual emission credits as described in this subpart. You may also trade reserved emission credits, but we may revoke these emission credits based on our review of your records or reports or those of the company with which you traded emission credits. You may trade banked credits to any certifying manufacturer.

(c) If a negative emission credit balance results from a transaction, both the buyer and seller are liable, except in cases we deem to involve fraud. See § 1042.255(e) for cases involving fraud. We may void the certificates of all engine families participating in a trade that results in a manufacturer having a negative balance of emission credits. See § 1042.745.

**§ 1042.725 Information required for the application for certification.**

(a) You must declare in your application for certification your intent to use the provisions of this subpart for each engine family that will be certified using the ABT program. You must also declare the FELs you select for the engine family for each pollutant for which you are using the ABT program. Your FELs must comply with the specifications of subpart B of this part, including the FEL caps. FELs must be expressed to the same number of decimal places as the emission standards.

(b) Include the following in your application for certification:

(1) A statement that, to the best of your belief, you will not have a negative balance of emission credits for any averaging set when all emission credits are calculated at the end of the year.

(2) Detailed calculations of projected emission credits (positive or negative) based on projected production volumes.

**§ 1042.730 ABT reports.**

(a) If any of your engine families are certified using the ABT provisions of this subpart, you must send an end-of-year report within 90 days after the end of the model year and a final report within 270 days after the end of the model year. We may waive the requirement to send the end-of-year report, as long as you send the final report on time.

(b) Your end-of-year and final reports must include the following information for each engine family participating in the ABT program:

(1) Engine-family designation.

(2) The emission standards that would otherwise apply to the engine family.

(3) The FEL for each pollutant. If you changed an FEL during the model year, identify each FEL you used and calculate the positive or negative emission credits under each FEL. Also, describe how the FEL can be identified for each engine you produced. For example, you might keep a list of engine

identification numbers that correspond with certain FEL values.

(4) The projected and actual production volumes for the model year with a point of first retail sale in the United States, as described in § 1042.705(c). If you changed an FEL during the model year, identify the actual production volume associated with each FEL.

(5) Maximum engine power for each engine configuration, and the production-weighted average engine power for the engine family.

(6) Useful life.

(7) Calculated positive or negative emission credits for the whole engine family. Identify any emission credits that you traded, as described in paragraph (d)(1) of this section.

(c) Your end-of-year and final reports must include the following additional information:

(1) Show that your net balance of emission credits from all your participating engine families in each averaging set in the applicable model year is not negative.

(2) State whether you will retain any emission credits for banking.

(3) State that the report's contents are accurate.

(d) If you trade emission credits, you must send us a report within 90 days after the transaction, as follows:

(1) Sellers must include the following information in their report:

(i) The corporate names of the buyer and any brokers.

(ii) A copy of any contracts related to the trade.

(iii) The engine families that generated emission credits for the trade, including the number of emission credits from each family.

(2) Buyers must include the following information in their report:

(i) The corporate names of the seller and any brokers.

(ii) A copy of any contracts related to the trade.

(iii) How you intend to use the emission credits, including the number of emission credits you intend to apply to each engine family (if known).

(e) Send your reports electronically to the Designated Compliance Officer using an approved information format. If you want to use a different format, send us a written request with justification for a waiver.

(f) Correct errors in your end-of-year report or final report as follows:

(1) You may correct any errors in your end-of-year report when you prepare the final report, as long as you send us the final report by the time it is due.

(2) If you or we determine within 270 days after the end of the model year that errors mistakenly decreased your balance of emission credits, you may correct the errors and recalculate the balance of emission credits. You may not make these corrections for errors that are determined more than 270 days after the end of the model year. If you report a negative balance of emission credits, we may disallow corrections under this paragraph (f)(2).

(3) If you or we determine anytime that errors mistakenly increased your balance of emission credits, you must correct the errors and recalculate the balance of emission credits.

### § 1042.735 Recordkeeping.

(a) You must organize and maintain your records as described in this section. We may review your records at any time.

(b) Keep the records required by this section for eight years after the due date for the end-of-year report. You may not use emission credits on any engines if you do not keep all the records required under this section. You must therefore keep these records to continue to bank valid credits. Store these records in any format and on any media, as long as you can promptly send us organized, written records in English if we ask for them. You must keep these records readily available. We may review them at any time.

(c) Keep a copy of the reports we require in § 1042.730.

(d) Keep the following additional records for each engine you produce that generates or uses emission credits under the ABT program:

(1) Engine family designation.

(2) Engine identification number. You may identify these numbers as a range.

(3) FEL and useful life. If you change the FEL after the start of production, identify the date that you started using the new FEL and give the engine identification number for the first engine covered by the new FEL.

(4) Maximum engine power.

(5) Purchaser and destination.

(e) We may require you to keep additional records or to send us relevant information not required by this section, as allowed under the Clean Air Act.

### § 1042.745 Noncompliance.

(a) For each engine family participating in the ABT program, the certificate of conformity is conditional upon full compliance with the provisions of this subpart during and after the model year. You are responsible to establish to our satisfaction that you fully comply with applicable requirements. We may void the certificate of conformity for an engine family if you fail to comply with any provisions of this subpart.

(b) You may certify your engine family to an FEL above an emission standard based on a projection that you will have enough emission credits to offset the deficit for the engine family. However, we may void the certificate of conformity if you cannot show in your final report that you have enough actual emission credits to offset a deficit for any pollutant in an engine family.

(c) We may void the certificate of conformity for an engine family if you fail to keep records, send reports, or give us information we request.

(d) You may ask for a hearing if we void your certificate under this section (see § 1042.920).

## Subpart I—Special Provisions for Remanufactured Marine Engines

### § 1042.801 General provisions.

This section describes how the provisions of this part 1042 apply for certain remanufactured marine engines.

(a) The requirements of this subpart apply for remanufactured Tier 2 and earlier commercial marine engines at or above 600 kW, excluding those engines originally manufactured before 1973. Note that the requirements of this subpart do not apply for engines below 600 kW, engines installed on recreational vessels, or Tier 3 and later engines.

(b) Any person meeting the definition of ''remanufacturer'' in § 1042.901 may apply for a certificate of conformity for a remanufactured engine family.

(c) The rebuilding requirements of 40 CFR 1068.120 do not apply to remanufacturing of engines using a certified remanufacturing system under this subpart. However, the requirements of 40 CFR 1068.120 do apply to all other remanufacturing of engines.

(d) Unless specified otherwise, engines certified under this subpart are also subject to the other requirements of this part.

(e) For remanufactured engines required to have a valid certificate of conformity, placing a new marine engine back into service following remanufacturing is a violation of 40 CFR 1068.101(a)(1), unless it has a valid certificate of conformity for its model year and the required label.

(f) Remanufacturing systems that require a fuel change or use of a fuel additive may be certified under this part. However, they are not considered to be ''available'' with respect to triggering the requirement for an engine to be covered by a certificate of conformity under § 1042.815. The following provisions apply:

(i) Only fuels and additives registered under 40 CFR part 79 may be used under this paragraph.

(ii) You must demonstrate in your application that the fuel or additive will actually be used by operators, including a description of how the vessels and dispensing tanks will be labeled. We may require you to provide the labels to the operators.

(iii) You must also describe analytical methods that can be used by EPA or others to verify that fuel meets your specifications.

(iv) You must provide clear instructions to the operators specifying that they may only use the specified fuel/additive, label their vessels and fuel dispensing tanks, and keep records of their use of the fuel/additive in order for their engine to be covered by your certificate. Use of the incorrect fuel (or fuel without the specified additive) or any other failure to comply with the requirements of this paragraph is a violation of 40 CFR 1068.101(b)(1).

(g) Vessels equipped with emission controls as part of a state or local retrofit program prior to January 1, 2017 are exempt from the requirements of this subpart, as specified in this paragraph (g).

(1) This exemption only applies for retrofit programs sponsored by a state government (or one of its political subdivisions) for the purpose of reducing emissions. The exemption does not apply where the sponsoring government specifies that inclusion in the retrofit program is not intended to provide an exemption from the requirements of this subpart.

(2) The prohibitions against tampering and defeat devices in 40 CFR 1068.101(b) and the rebuilding requirements in 40 CFR 1068.120 apply for the exempt engines in the same manner as if they were covered by a certificate.

(3) Vessel owners must request an exemption prior to remanufacturing the engine. Your request must include documentation that your vessel has been retrofitted consistent with the specifications of paragraph (g)(1) of this section, and a signed statement declaring that to be true. Except for the initial request for a specific vessel and a specific retrofit, you may consider your request to be approved unless we notify you otherwise within 30 days of the date that we receive your request.

### § 1042.810 Requirements for owner/operators and installers during remanufacture.

This section describes how the remanufacturing regulations affect owner/operators and installers for engines subject to this subpart.

(a) See the definition of ''remanufacture'' in § 1042.901 to determine if you are remanufacturing your engine. (**Note:** Replacing cylinders one at a time may qualify as remanufacturing, depending on the interval between replacement.)

(b) See the definition of ''new marine engine'' in § 1042.901 to determine if remanufacturing your engine makes it subject to the requirements of this part. If the engine is considered to be new, it is subject to the certification requirements of this subpart, unless it is exempt under subpart G of this part.

(c) Your engine is not subject to the standards of this part if we determine that no certified remanufacturing system is available for your engine as described in § 1042.815. For engines that are remanufactured during multiple events within a five-year period, you are not required to use a certified system until all of your engine's cylinders have been replaced after the system became available. For example, if you remanufacture your 16-cylinder engine by replacing four cylinders each January and a system becomes available for your engine June 1, 2010, your engine must be in a certified configuration when you replace four cylinders in January of 2014. At that point, all 16 cylinders would have been replaced after June 1, 2010.

(d) You may comply with the certification requirements of this part for your remanufactured engine by either obtaining your own certificate of conformity as specified in subpart C of this part or by having a certifying remanufacturer include your engine under its certificate of conformity. In either case, your remanufactured engine must be covered by a certificate before it is reintroduced into service.

(e) Contact a certifying remanufacturer to have your engine included under its certificate of conformity. You must comply with the certificate holder's emission-related installation instructions.

### § 1042.815 Demonstrating availability.

(a) A certified remanufacturing system is considered to be available for a specific engine only if EPA has certified the remanufacturing system as being in compliance with the provisions of this part and the certificate holder has demonstrated during certification that the system meets the criteria of this paragraph (a). We may issue a certificate for a remanufacturing system that does not meet these criteria, but such systems would not be considered available.

(1) The engine configuration must be included in the engine family for the remanufacturing system.

(2) The total marginal cost of the remanufacturing system, as calculated under paragraph (c) of this section, must be less than $45,000 per ton of PM reduction.

(3) It must be possible to obtain and install the remanufacturing system in a timely manner consistent with normal remanufacturing procedures. For example, a remanufacturing system would generally not be considered to be available if it required that the engine be removed from the vessel and shipped to a factory to be remanufactured.

(4) The remanufacturing system may result in increased maintenance costs, provided the incremental maintenance costs are included in the total costs. The remanufacturing system may not adversely affect engine reliability or power. Note that owner/operators may ask us to determine that a remanufacturing system is not considered available for their vessels because of excessive costs under § 1042.850.

(b) We will maintain a list of available remanufacturing systems. A new remanufacturing system is considered to be available 120 days after we first issue a certificate of conformity for it. Where we issue a certificate of conformity based on carryover data for a system that is already considered to be available for the configuration, the 120-day delay does not apply and the new system is considered to be available when we issue the certificate.

(c) For the purpose of paragraph (a)(2) of this section, marginal cost means the difference in costs between remanufacturing the engine using the remanufacturing system and remanufacturing the engine conventionally, divided by the projected amount that PM emissions will be reduced over the engine's useful life.

(1) Total costs include:

(i) Incremental hardware costs.

(ii) Incremental labor costs.

(iii) Incremental operating costs over one useful life period.

(iv) Other costs (such as shipping).

(2) Calculate the projected amount that PM emissions will be reduced over the engine's useful life using the following equation:

$$\text{PM tons} = (EF_{base} - EF_{cont}) \times (PR) \times (UL) \times (LF) \times (10^{-6})$$

Where:

$EF_{base}$ = deteriorated baseline PM emission rate (g/kW-hr).

$EF_{cont}$ = deteriorated controlled PM emission rate (g/kW-hr).

PR = maximum engine power for the engine (kW).

UL = useful life (hr).
LF = the load factor that would apply for your engine under § 1042.705.

**§ 1042.820 Emission standards and required emission reductions for remanufactured engines.**

(a) The requirements of this section apply with respect to emissions as measured according to subpart F of this part. See paragraph (g) of this section for special provisions related to remanufacturing systems certified for both locomotive and marine engines. Remanufactured Tier 2 and earlier engines may be certified under this subpart only if they have $NO_X$ emissions equivalent to or less than baseline $NO_X$ levels and PM emissions at least 25.0 percent less than baseline PM emission levels. See § 1042.825 for provisions for determining baseline $NO_X$ and PM emissions. See § 1042.835 for provisions related to demonstrating compliance with these requirements.

(b) The NTE and ABT provisions of this part do not apply for remanufactured engines.

(c) The exhaust emission standards in this section apply for engines using the fuel type on which the engines in the engine family are designed to operate. Engines designed to operate using residual fuel must comply with the standards and requirements of this part when operated using residual fuel.

(d) Your engines must meet the exhaust emission standards of this section over their full useful life, as defined in § 1042.101(e).

(e) The duty-cycle emission standards in this subpart apply to all testing performed according to the procedures in § 1042.505, including certification, production-line, and in-use testing.

(f) Sections 1042.120, 1042.125, 1042.130, 1042.140 apply for remanufactured engines as written. Section 1042.115 applies for remanufactured engines as written, except for the requirement that electronically controlled engines broadcast their speed and output shaft torque.

(g) A remanufacturing system certified for locomotive engines under 40 CFR part 1033 may be deemed to also meet the requirements of this section, as specified in § 1042.836.

**§ 1042.825 Baseline determination.**

(a) For the purpose of this subpart, the term ''baseline emissions'' means the average measured emission rate specified by this section. Baseline emissions are specific to a given certificate holder and a given engine configuration.

(b) Select a used engine to be the emission-data engine for the engine family for testing. Using good engineering judgment, select the engine configuration expected to represent the most common configuration in the family.

(c) Remanufacture the engine according to OEM specifications (or equivalent). The engine is considered ''the baseline engine'' at this point. If the OEM specifications include a range of adjustment for any parameter, set the parameter to the midpoint of the range. You may ask us to allow you to adjust it differently, consistent with good engineering judgment.

(d) Test the baseline engine four times according to the test procedures in subpart F of this part. The baseline emissions are the average of those four tests.

(e) We may require you to test a second engine of the same or different configuration in addition to the engine tested under this section. If we require you to test the same configuration, average the results of the testing with previous results, unless we determine that your previous results are not valid.

(f) Use good engineering judgment for all aspects of the baseline determination. We may reject your baseline if we determine that you did not use good engineering judgment, consistent with the provisions of 40 CFR 1068.5.

**§ 1042.830 Labeling.**

(a) At the time of remanufacture, affix a permanent and legible label identifying each engine. The label must be—

(1) Attached in one piece so it is not removable without being destroyed or defaced.

(2) Secured to a part of the engine needed for normal operation and not normally requiring replacement.

(3) Durable and readable for the engine's entire useful life.

(4) Written in English.

(b) The label must—

(1) Include the heading ''EMISSION CONTROL INFORMATION''.

(2) Include your full corporate name and trademark.

(3) Include EPA's standardized designation for the engine family.

(4) State the engine's category, displacement (in liters or L/cyl), maximum engine power (in kW), and power density (in kW/L) as needed to determine the emission standards for the engine family. You may specify displacement, maximum engine power, and power density as ranges consistent with the ranges listed in § 1042.101. See § 1042.140 for descriptions of how to specify per-cylinder displacement, maximum engine power, and power density.

(5) State: ''THIS MARINE ENGINE COMPLIES WITH 40 CFR 1042, SUBPART I, FOR [CALENDAR YEAR OF REMANUFACTURE].''.

(c) You may add information to the emission control information label to identify other emission standards that the engine meets or does not meet (such as international standards). You may also add other information to ensure that the engine will be properly maintained and used.

(d) You may ask us to approve modified labeling requirements in this section if you show that it is necessary or appropriate. We will approve your request if your alternate label is consistent with the intent of the labeling requirements of this section.

**§ 1042.835 Certification of remanufactured engines.**

(a) *General requirements.* See §§ 1042.201, 1042.210, 1042.220, 1042.225, 1042.250, and 1042.255 for the general requirements related to obtaining a certificate of conformity. See § 1042.836 for special certification provisions for remanufacturing systems certified for locomotive engines under 40 CFR 1033.936.

(b) *Applications.* See § 1042.840 for a description of what you must include in your application.

(c) *Engine families.* See § 1042.845 for instruction about dividing your engines into engine families.

(d) *Test data.* (1) Measure baseline emissions for the test configuration as specified in § 1042.825.

(2) Measure emissions from the test engine for your remanufacturing system according to the procedures of subpart F of this part.

(3) We may measure emissions from any of your test engines or other engines from the engine family, as follows:

(i) We may decide to do the testing at your plant or any other facility. If we do this, you must deliver the test engine to a test facility we designate. The test engine you provide must include appropriate manifolds, aftertreatment devices, electronic control units, and other emission-related components not normally attached directly to the engine block. If we do the testing at your plant, you must schedule it as soon as possible and make available the instruments, personnel, and equipment we need.

(ii) If we measure emissions from one of your test engines, the results of that testing become the official emission results for the engine. Unless we later invalidate these data, we may decide not to consider your data in determining if your engine family meets applicable requirements.

(iii) Before we test one of your engines, we may set its adjustable parameters to any point within the specified adjustable ranges (see § 1042.115(d)).

(iv) Before we test one of your engines, we may calibrate it within normal production tolerances for anything we do not consider an adjustable parameter.

(4) You may ask to use emission data from a previous model year instead of doing new tests, but only if all the following are true:

(i) The engine family from the previous model year differs from the current engine family only with respect to model year or other characteristics unrelated to emissions. You may also ask to add a configuration subject to § 1042.225.

(ii) The emission-data engine from the previous model year remains the appropriate emission-data engine.

(iii) The data show that the emission-data engine would meet all the requirements that apply to the engine family covered by the application for certification.

(5) We may require you to test a second engine of the same or different configuration in addition to the engine tested under this section.

(6) If you use an alternate test procedure under 40 CFR 1065.10 and later testing shows that such testing does not produce results that are equivalent to the procedures specified in subpart F of this part, we may reject data you generated using the alternate procedure.

(e) *Demonstrating compliance.* (1) For purposes of certification, your engine family is considered in compliance with the emission standards in § 1042.820 if all emission-data engines representing that family have test results showing compliance with the standards and percent reductions required by that section. To compare emission levels from the emission-data engine with the applicable emission standards, apply an additive deterioration factor of 0.015 g/kW-hr to the measured emission levels for PM. Alternatively, you may test your engine as specified in § 1042.245 to develop deterioration factors that represent the deterioration expected in emissions over your engines' full useful life.

(2) Collect emission data using measurements to one more decimal place than the applicable standard. Apply the deterioration factor to the official emission result, then round the adjusted figure to the same number of decimal places as the emission standard. Compare the rounded emission levels to the emission standard for each emission-data engine.

(3) Your applicable $NO_X$ standard for each configuration is the baseline $NO_X$ emission rate for that configuration plus 5.0 percent (to account for test-to-test and engine-to-engine variability). Your applicable PM standard for each configuration is the baseline PM emission rate for that configuration multiplied by 0.750 plus the deterioration factor. If you choose to include configurations in your engine family for which you do not measure baseline emissions, you must demonstrate through engineering analysis that your remanufacturing system will reduce PM emissions by at least 25.0 percent for those configurations and not increase $NO_X$ emissions.

(4) Your engine family is deemed not to comply if any emission-data engine representing that family for certification has test results showing a deteriorated emission level above an applicable emission standard for any pollutant.

(f) *Safety Evaluation.* You must exercise due diligence in ensuring that your system will not adversely affect safety or otherwise violate the prohibition of § 1042.115(e).

(g) *Compatibility Evaluation.* If you are not the original manufacturer of the engine, you must contact the original manufacturer of the engine to verify that your system is compatible with the engine. Keep records of your contact with the original manufacturer.

### § 1042.836 Marine certification of locomotive remanufacturing systems.

If you certify a Tier 0, Tier 1, or Tier 2 remanufacturing system for locomotives under 40 CFR part 92 or part 1033, you may also certify the system under this part 1042, according to the provisions of this section.

(a) Include the following with your application for certification under 40 CFR part 1033:

(1) A statement of your intent to use your remanufacturing system for marine engines. Include a list of marine engine models for which your system may be used.

(2) If there are significant differences in how your remanufacture system will be applied to marine engines relative to locomotives, in an engineering analysis demonstrating that your system will achieve emission reductions from marine engines similar to those from locomotives.

(3) A description of modifications needed for marine applications.

(4) A demonstration of availability as described in § 1042.815, except that the total marginal cost threshold does not apply.

(5) An unconditional statement that all the engines in the engine family comply with the requirements of this part, other referenced parts of the CFR, and the Clean Air Act.

(b) Sections 1042.835 and 1042.840 do not apply for engines certified under this section.

(c) Systems certified under 40 CFR part 92 are subject to the following restrictions:

(1) Tier 0 locomotives systems may not be used for any Category 1 engines or Tier 1 or later Category 2 engines.

(2) Where systems certified under 40 CFR part 1033 are also available for an engine, you may not use a system certified under 40 CFR part 92.

### § 1042.840 Application requirements for remanufactured engines.

This section specifies the information that must be in your application, unless we ask you to include less information under § 1042.201(c). We may require you to provide additional information to evaluate your application.

(a) Describe the engine family's specifications and other basic parameters of the engine's design and emission controls. List the fuel type on which your engines are designed to operate (for example, ultra low-sulfur diesel fuel). List each distinguishable engine configuration in the engine family. For each engine configuration, list the maximum engine power and the range of values for maximum engine power resulting from production tolerances, as described in § 1042.140.

(b) Explain how the emission control system operates. Describe in detail all system components for controlling exhaust emissions, including any auxiliary emission control devices (AECDs) you add to the engine. Identify the part number of each component you describe.

(c) Summarize your cost effectiveness analysis used to demonstrate your system will meet the availability criteria of § 1042.815. Identify the maximum allowable costs for vessel modifications to meet the these criteria.

(d) Describe the engines you selected for testing and the reasons for selecting them.

(e) Describe the test equipment and procedures that you used, including the duty cycle(s) and the corresponding engine applications. Also describe any special or alternate test procedures you used.

(f) Describe how you operated the emission-data engine before testing, including the duty cycle and the number of engine operating hours used

to stabilize emission levels. Explain why you selected the method of service accumulation. Describe any scheduled maintenance you did.

(g) List the specifications of the test fuel to show that it falls within the required ranges we specify in 40 CFR part 1065. See § 1042.801 if your certification is based on the use of special fuels or additives.

(h) Identify the engine family's useful life.

(i) Include the maintenance and warranty instructions you will give to the owner/operator (see §§ 1042.120 and 1042.125).

(j) Include the emission-related installation instructions you will provide if someone else installs your engines in a vessel (see § 1042.130).

(k) Describe your emission control information label (see § 1042.830).

(l) Identify the engine family's deterioration factors and describe how you developed them (see § 1042.245). Present any emission test data you used for this.

(m) State that you operated your emission-data engines as described in the application (including the test procedures, test parameters, and test fuels) to show you meet the requirements of this part.

(n) Present emission data for HC, $NO_X$, PM, and CO as required by § 1042.820. Show emission figures before and after applying adjustment factors for regeneration and deterioration factors for each pollutant and for each engine.

(o) Report all test results, including those from invalid tests, whether or not they were conducted according to the test procedures of subpart F of this part. If you measure $CO_2$, report those emission levels. We may ask you to send other information to confirm that your tests were valid under the requirements of this part and 40 CFR part 1065.

(p) Describe all adjustable operating parameters (see § 1042.115(d)), including production tolerances. Include the following in your description of each parameter:

(1) The nominal or recommended setting.

(2) The intended physically adjustable range.

(3) The limits or stops used to establish adjustable ranges.

(4) For Category 1 engines, information showing why the limits, stops, or other means of inhibiting adjustment are effective in preventing adjustment of parameters on in-use engines to settings outside your intended physically adjustable ranges.

(5) For Category 2 engines, propose a range of adjustment for each adjustable parameter, as described in § 1042.115(d). Include information showing why the limits, stops, or other means of inhibiting adjustment are effective in preventing adjustment of parameters on in-use engines to settings outside your proposed adjustable ranges.

(q) Unconditionally certify that all the engines in the engine family comply with the requirements of this part, other referenced parts of the CFR, and the Clean Air Act.

(r) Include the information required by other subparts of this part.

(s) Include other applicable information, such as information specified in this part or 40 CFR part 1068 related to requests for exemptions.

(t) Name an agent for service located in the United States. Service on this agent constitutes service on you or any of your officers or employees for any action by EPA or otherwise by the United States related to the requirements of this part.

(u) If you are not the original manufacturer of the engine, include a summary of your contact with the original manufacturer of the engine and provide to us any documentation provided to you by the original manufacturer.

### § 1042.845 Remanufactured engine families.

(a) For purposes of certification, divide your product line into families of engines that are expected to have similar emission characteristics throughout the useful life as described in this section. You may not group Category 1 and Category 2 engines in the same family.

(b) In general, group engines in the same engine family if they are the same in all the following aspects:

(1) The combustion cycle and fuel (the fuels with which the engine is intended or designed to be operated).

(2) The cooling system (for example, raw-water vs. separate-circuit cooling).

(3) Method of air aspiration.

(4) Method of exhaust aftertreatment (for example, catalytic converter or particulate trap).

(5) Combustion chamber design.

(6) Nominal bore and stroke.

(7) Method of control for engine operation other than governing (i.e., mechanical or electronic).

(8) Original engine manufacturer.

(c) Alternatively, you may ask us to allow you to include other engine configurations in your engine family, consistent with good engineering judgment.

(d) Do not include in your family any configurations for which good engineering judgment indicates that your emission controls are unlikely to provide PM emission reductions similar to the configuration(s) tested.

### § 1042.850 Exemptions and hardship relief.

This section describes exemption and hardship provisions that are available for owner/operators of engine subject to the provisions of this subpart.

(a) Vessels owned and operated by entities that meet the size criterion of this paragraph (a) are exempt from the requirements of this subpart I. To be exempt, your gross annual revenue for the calendar year before the remanufacture must be less than $5,000,000 in 2008 dollars or the equivalent value for future years based on the Bureau of Labor Statistics' Producer Price Index (see *www.bls.gov*). Include all revenues from any parent company and its subsidiaries. The exemption applies only for years in which you meet this criterion.

(b) In unusual circumstances, we may exempt you from an otherwise applicable requirement that you apply a certified remanufacturing system when remanufacturing your marine engine.

(1) To be eligible, you must demonstrate that all of the following are true:

(i) Unusual circumstances prevent you from meeting requirements from this chapter.

(ii) You have taken all reasonable steps to minimize the extent of the nonconformity.

(iii) Not having the exemption will jeopardize the solvency of your company.

(iv) No other allowances are available under the regulations in this chapter to avoid the impending violation.

(2) Send the Designated Compliance Officer a written request for an exemption before you are in violation.

(3) We may impose other conditions, including provisions to use an engine meeting less stringent emission standards or to recover the lost environmental benefit.

(4) In determining whether to grant the exemptions, we will consider all relevant factors, including the following:

(i) The number of engines to be exempted.

(ii) The size of your company and your ability to endure the hardship.

(iii) The length of time a vessel is expected to remain in service.

(c) If you believe that a remanufacturing system that we identified as being available cannot be

installed without significant modification of your vessel, you may ask us to determine that a remanufacturing system is not considered available for your vessel because the cost would be excessive.

## Subpart J—Definitions and Other Reference Information

### § 1042.901 Definitions.

The following definitions apply to this part. The definitions apply to all subparts unless we note otherwise. All undefined terms have the meaning the Clean Air Act gives to them. The definitions follow:

*Adjustable parameter* means any device, system, or element of design that someone can adjust (including those which are difficult to access) and that, if adjusted, may affect emissions or engine performance during emission testing or normal in-use operation. This includes, but is not limited to, parameters related to injection timing and fueling rate. You may ask us to exclude a parameter that is difficult to access if it cannot be adjusted to affect emissions without significantly degrading engine performance, or if you otherwise show us that it will not be adjusted in a way that affects emissions during in-use operation.

*Aftertreatment* means relating to a catalytic converter, particulate filter, or any other system, component, or technology mounted downstream of the exhaust valve (or exhaust port) whose design function is to decrease emissions in the engine exhaust before it is exhausted to the environment. Exhaust-gas recirculation and turbochargers are not aftertreatment.

*Amphibious vehicle* means a vehicle with wheels or tracks that is designed primarily for operation on land and secondarily for operation in water.

*Annex VI Technical Code* means the ''Technical Code on Control of Emission of Nitrogen Oxides from Marine Diesel Engines, 1997,'' adopted by the International Maritime Organization (incorporated by reference in § 1042.910).

*Applicable emission standard* or *applicable standard* means an emission standard to which an engine is subject; or, where an engine has been or is being certified to another standard or FEL, applicable emission standards means the FEL and other standards to which the engine has been or is being certified. This definition does not apply to subpart H of this part.

*Auxiliary emission control device* means any element of design that senses temperature, vessel speed, engine RPM, transmission gear, or any other parameter for the purpose of activating, modulating, delaying, or deactivating the operation of any part of the emission control system.

*Base engine* means a land-based engine to be marinized, as configured prior to marinization.

*Baseline emissions* has the meaning given in § 1042.825.

*Brake power* means the usable power output of the engine, not including power required to fuel, lubricate, or heat the engine, circulate coolant to the engine, or to operate aftertreatment devices.

*Calibration* means the set of specifications and tolerances specific to a particular design, version, or application of a component or assembly capable of functionally describing its operation over its working range.

*Carryover* means the process of obtaining a certificate for one model year using the same test data from the preceding model year, as described in § 1042.235(d). This generally requires that the locomotives in the engine family do not differ in any aspect related to emissions.

*Category 1* means relating to a marine engine with specific engine displacement below 7.0 liters per cylinder.

*Category 2* means relating to a marine engine with a specific engine displacement at or above 7.0 liters per cylinder but less than 30.0 liters per cylinder.

*Category 3* means relating to a marine engine with a specific engine displacement at or above 30.0 liters per cylinder.

*Certification* means relating to the process of obtaining a certificate of conformity for an engine family that complies with the emission standards and requirements in this part.

*Certified emission level* means the highest deteriorated emission level in an engine family for a given pollutant from either transient or steady-state testing.

*Clean Air Act* means the Clean Air Act, as amended, 42 U.S.C. 7401–7671q.

*Commercial* means relating to an engine or vessel that is not a recreational marine engine or a recreational vessel.

*Compression-ignition* means relating to a type of reciprocating, internal-combustion engine that is not a spark-ignition engine. Note that marine engines powered by natural gas with maximum engine power at or above 250 kW are deemed to be compression-ignition engines in § 1042.1.

*Constant-speed engine* means an engine whose certification is limited to constant-speed operation. Engines whose constant-speed governor function is removed or disabled are no longer constant-speed engines.

*Constant-speed operation* has the meaning given in 40 CFR 1065.1001.

*Crankcase emissions* means airborne substances emitted to the atmosphere from any part of the engine crankcase's ventilation or lubrication systems. The crankcase is the housing for the crankshaft and other related internal parts.

*Critical emission-related component* means any of the following components:

(1) Electronic control units, aftertreatment devices, fuel-metering components, EGR-system components, crankcase-ventilation valves, all components related to charge-air compression and cooling, and all sensors and actuators associated with any of these components.

(2) Any other component whose primary purpose is to reduce emissions.

*Days* means calendar days, unless otherwise specified. For example, where we specify working days, we mean calendar days excluding weekends and U.S. national holidays.

*Designated Compliance Officer* means the Manager, Heavy-Duty and Nonroad Engine Group (6403-J), U.S. Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460.

*Deteriorated emission level* means the emission level that results from applying the appropriate deterioration factor to the official emission result of the emission-data engine.

*Deterioration factor* means the relationship between emissions at the end of useful life and emissions at the low-hour test point (or between highest and lowest emission levels, if applicable), expressed in one of the following ways:

(1) For multiplicative deterioration factors, the ratio of emissions at the end of useful life to emissions at the low-hour test point.

(2) For additive deterioration factors, the difference between emissions at the end of useful life and emissions at the low-hour test point.

*Diesel fuel* has the meaning given in 40 CFR 80.2. This generally includes No. 1 and No. 2 petroleum diesel fuels and biodiesel fuels.

*Discrete-mode* means relating to the discrete-mode type of steady-state test described in § 1042.505.

*Emission control system* means any device, system, or element of design that controls or reduces the emissions of regulated pollutants from an engine.

*Emission-data engine* means an engine that is tested for certification. This includes engines tested to establish deterioration factors.

*Emission-related maintenance* means maintenance that substantially affects emissions or is likely to substantially affect emission deterioration.

*Engine* has the meaning given in 40 CFR 1068.30. This includes complete and partially complete engines.

*Engine configuration* means a unique combination of engine hardware and calibration within an engine family. Engines within a single engine configuration differ only with respect to normal production variability.

*Engine family* has the meaning given in § 1042.230.

*Engine manufacturer* means a manufacturer of an engine. See the definition of ''manufacturer'' in this section.

*Engineering analysis* means a summary of scientific and/or engineering principles and facts that support a conclusion made by a manufacturer, with respect to compliance with the provisions of this part.

*Excluded* means relating to an engine that either:

(1) Has been determined not to be a nonroad engine, as specified in 40 CFR 1068.30; or

(2) Is a nonroad engine that, according to § 1042.5, is not subject to this part 1042.

*Exempted* has the meaning given in 40 CFR 1068.30.

*Exhaust-gas recirculation* means a technology that reduces emissions by routing exhaust gases that had been exhausted from the combustion chamber(s) back into the engine to be mixed with incoming air before or during combustion. The use of valve timing to increase the amount of residual exhaust gas in the combustion chamber(s) that is mixed with incoming air before or during combustion is not considered exhaust-gas recirculation for the purposes of this part.

*Family emission limit (FEL)* means an emission level declared by the manufacturer to serve in place of an otherwise applicable emission standard under the ABT program in subpart H of this part. The family emission limit must be expressed to the same number of decimal places as the emission standard it replaces. The family emission limit serves as the emission standard for the engine family with respect to all required testing.

*Freshly manufactured marine engine* means a new marine engine that has not been remanufactured. An engine becomes freshly manufactured when it is originally manufactured.

*Foreign vessel* means a vessel of foreign registry or a vessel operated under the authority of a country other than the United States.

*Fuel system* means all components involved in transporting, metering, and mixing the fuel from the fuel tank to the combustion chamber(s), including the fuel tank, fuel tank cap, fuel pump, fuel filters, fuel lines, carburetor or fuel-injection components, and all fuel-system vents.

*Fuel type* means a general category of fuels such as gasoline, diesel fuel, residual fuel, or natural gas. There can be multiple grades within a single fuel type, such as high-sulfur or low-sulfur diesel fuel.

*Good engineering judgment* has the meaning given in 40 CFR 1068.30. See 40 CFR 1068.5 for the administrative process we use to evaluate good engineering judgment.

*Green Engine Factor* means a factor that is applied to emission measurements from a Category 2 engine that has had little or no service accumulation. The Green Engine Factor adjusts emission measurements to be equivalent to emission measurements from an engine that has had approximately 300 hours of use.

*High-sulfur diesel fuel* means one of the following:

(1) For in-use fuels, *high-sulfur diesel fuel* means a diesel fuel with a maximum sulfur concentration above 500 parts per million.

(2) For testing, *high-sulfur diesel fuel* has the meaning given in 40 CFR part 1065.

*Hydrocarbon (HC)* means the hydrocarbon group on which the emission standards are based for each fuel type, as described in § 1042.101(d).

*Identification number* means a unique specification (for example, a model number/serial number combination) that allows someone to distinguish a particular engine from other similar engines.

*Low-hour* means relating to an engine that has stabilized emissions and represents the undeteriorated emission level. This would generally involve less than 125 hours of operation for engines below 560 kW and less than 300 hours for engines at or above 560 kW.

*Low-sulfur diesel fuel* means one of the following:

(1) For in-use fuels, *low-sulfur diesel fuel* means a diesel fuel market as low-sulfur diesel fuel having a maximum sulfur concentration of 500 parts per million.

(2) For testing, *low-sulfur diesel fuel* has the meaning given in 40 CFR part 1065.

*Manufacture* means the physical and engineering process of designing, constructing, and assembling an engine or a vessel.

*Manufacturer* has the meaning given in section 216(1) of the Clean Air Act (42 U.S.C. 7550(1)). In general, this term includes any person who manufactures an engine or vessel for sale in the United States or otherwise introduces a new marine engine into U.S. commerce. This includes importers who import engines or vessels for resale. It also includes post-manufacture marinizers, but not dealers. All manufacturing entities under the control of the same person are considered to be a single manufacturer.

*Marine engine* means a nonroad engine that is installed or intended to be installed on a marine vessel. This includes a portable auxiliary marine engine only if its fueling, cooling, or exhaust system is an integral part of the vessel. A fueling system is considered integral to the vessel only if one or more essential elements are permanently affixed to the vessel. There are two kinds of marine engines:

(1) Propulsion marine engine means a marine engine that moves a vessel through the water or directs the vessel's movement.

(2) Auxiliary marine engine means a marine engine not used for propulsion.

*Marine vessel* has the meaning given in 1 U.S.C. 3, except that it does not include amphibious vehicles. The definition in 1 U.S.C. 3 very broadly includes every craft capable of being used as a means of transportation on water.

*Maximum engine power* has the meaning given in § 1042.140.

*Maximum test power* means the power output observed at the maximum test speed with the maximum fueling rate possible.

*Maximum test speed* has the meaning given in 40 CFR 1065.1001.

*Maximum test torque* has the meaning given in 40 CFR 1065.1001.

*Model year* means one of the following things:

(1) For freshly manufactured marine engines (see definition of ''new marine engine,'' paragraph (1)), model year means one of the following:

(i) Calendar year.

(ii) Your annual new model production period if it is different than the calendar year. This must include January 1 of the calendar year for which the model year is named. It may not begin before January 2 of the previous calendar year and it must end by December 31 of the named calendar year.

(2) For an engine that is converted to a marine engine after originally being placed into service as a motor-vehicle

engine, a nonroad engine that is not a marine engine, or a stationary engine, model year means the calendar year in which the engine was converted (see definition of ''new marine engine,'' paragraph (2)).

(3) For a marine engine excluded under § 1042.5 that is later converted to operate in an application that is not excluded, model year means the calendar year in which the engine was converted (see definition of ''new marine engine, (paragraph (3)).

(4) For engines that are not freshly manufactured but are installed in new vessels, model year means the calendar year in which the engine is installed in the new vessel (see definition of ''new marine engine,'' paragraph (4)).

(5) For imported engines:

(i) For imported engines described in paragraph (5)(i) of the definition of ''new marine engine,'' *model year* has the meaning given in paragraphs (1) through (4) of this definition.

(ii) For imported engines described in paragraph (5)(ii) of the definition of new marine engine,'' *model year* means the calendar year in which the engine is modified.

(iii) For imported engines described in paragraph (5)(iii) of the definition of ''new marine engine,'' *model year* means the calendar year in which the importation occurs.

(6) For freshly manufactured vessels, model year means the calendar year in which the keel is laid or the vessel is at a similar stage of construction. For vessels that become new as a result of substantial modifications, model year means the calendar year in which the modifications physically begin.

(7) For remanufactured engines, model year means the calendar year in which the remanufacture takes place.

*Motor vehicle* has the meaning given in 40 CFR 85.1703(a).

*New marine engine* means any of the following things:

(1) A freshly manufactured marine engine for which the ultimate purchaser has never received the equitable or legal title. This kind of engine might commonly be thought of as ''brand new.'' In the case of this paragraph (1), the engine is new from the time it is produced until the ultimate purchaser receives the title or the product is placed into service, whichever comes first.

(2) An engine intended to be installed in a vessel that was originally manufactured as a motor-vehicle engine, a nonroad engine that is not a marine engine, or a stationary engine. In this case, the engine is no longer a motor-vehicle, nonmarine, or stationary engine and becomes a ''new marine engine.'' The engine is no longer new when it is placed into marine service.

(3) A marine engine that has been previously placed into service in an application we exclude under § 1042.5, where that engine is installed in a vessel that is covered by this part 1042. The engine is no longer new when it is placed into marine service covered by this part 1042. For example, this would apply to an engine that is no longer used in a foreign vessel.

(4) An engine not covered by paragraphs (1) through (3) of this definition that is intended to be installed in a new vessel. The engine is no longer new when the ultimate purchaser receives a title for the vessel or it is placed into service, whichever comes first. This generally includes installation of used engines in new vessels.

(5) A remanufactured marine engine. An engine becomes new when it is remanufactured (as defined in this section) and ceases to be new when placed back into service.

(6) An imported marine engine, subject to the following provisions:

(i) An imported marine engine covered by a certificate of conformity issued under this part that meets the criteria of one or more of paragraphs (1) through (4) of this definition, where the original engine manufacturer holds the certificate, is new as defined by those applicable paragraphs.

(ii) An imported remanufactured engine that would have been required to be certified if it had been remanufactured in the United States.

(iii) An imported engine that will be covered by a certificate of conformity issued under this part, where someone other than the original engine manufacturer holds the certificate (such as when the engine is modified after its initial assembly), is a new marine engine when it is imported. It is no longer new when the ultimate purchaser receives a title for the engine or it is placed into service, whichever comes first.

(iv) An imported marine engine that is not covered by a certificate of conformity issued under this part at the time of importation is new, but only if it was produced on or after the dates shown in the following table. This addresses uncertified engines and vessels initially placed into service that someone seeks to import into the United States. Importation of this kind of engine (or vessel containing such an engine) is generally prohibited by 40 CFR part 1068.

APPLICABILITY OF EMISSION STANDARDS FOR COMPRESSION-IGNITION MARINE ENGINES

| Engine category and type | Power (kW) | Per-cylinder displacement (L/cyl) | Initial model year of emission standards |
|---|---|---|---|
| Category 1 | P < 19 | All | 2000 |
| Category 1 | 19 ≤ P < 37 | All | 1999 |
| Category 1, Recreational | P ≥ 37 | disp. < 0.9 | 2007 |
| Category 1, Recreational | All | 0.9 ≤ disp. < 2.5 | 2006 |
| Category 1, Recreational | All | disp. ≥ 2.5 | 2004 |
| Category 1, Commercial | P ≥ 37 | disp. < 0.9 | 2005 |
| Category 1, Commercial | All | disp. ≥ 0.9 | 2004 |
| Category 2 and 3 | All | disp. ≥ 5.0 | 2004 |

*New vessel* means any of the following:

(1) A vessel for which the ultimate purchaser has never received the equitable or legal title. The vessel is no longer new when the ultimate purchaser receives this title or it is placed into service, whichever comes first.

(2) For vessels with no Category 3 engines, a vessel that has been modified such that the value of the modifications exceeds 50 percent of the value of the modified vessel, excluding temporary modifications (as defined in this section). The value of the modification is the difference in the assessed value of the vessel before the modification and the assessed value of the vessel after the modification. The vessel is no longer new when it is placed into service. Use

the following equation to determine if the fractional value of the modification exceeds 50 percent:

Percent of value = [(Value after modification) − (Value before modification)] × 100% ÷ (Value after modification)

(3) For vessels with Category 3 engines, a vessel that has undergone a modification that substantially alters the dimensions or carrying capacity of the vessel, changes the type of vessel, or substantially prolongs the vessel's life.

(4) An imported vessel that has already been placed into service, where it has an engine not covered by a certificate of conformity issued under this part at the time of importation that was manufactured after the requirements of this part start to apply (see § 1042.1).

*Noncompliant engine* means an engine that was originally covered by a certificate of conformity but is not in the certified configuration or otherwise does not comply with the conditions of the certificate.

*Nonconforming engine* means an engine not covered by a certificate of conformity that would otherwise be subject to emission standards.

*Nonmethane hydrocarbon* has the meaning given in 40 CFR 1065.1001. This generally means the difference between the emitted mass of total hydrocarbons and the emitted mass of methane.

*Nonroad* means relating to nonroad engines, or vessels, or equipment that include nonroad engines.

*Nonroad engine* has the meaning given in 40 CFR 1068.30. In general, this means all internal-combustion engines except motor vehicle engines, stationary engines, engines used solely for competition, or engines used in aircraft.

*Official emission result* means the measured emission rate for an emission-data engine on a given duty cycle before the application of any deterioration factor, but after the applicability of regeneration adjustment factors.

*Operator demand* has the meaning given in 40 CFR 1065.1001.

*Owners manual* means a document or collection of documents prepared by the engine manufacturer for the owner or operator to describe appropriate engine maintenance, applicable warranties, and any other information related to operating or keeping the engine. The owners manual is typically provided to the ultimate purchaser at the time of sale. The owners manual may be in paper or electronic format.

*Oxides of nitrogen* has the meaning given in 40 CFR 1065.1001.

*Particulate trap* means a filtering device that is designed to physically trap particulate matter above a certain size.

*Passenger* means a person that provides payment as a condition of boarding a vessel. This does not include the owner or any paid crew members.

*Placed into service* means put into initial use for its intended purpose.

*Point of first retail sale* means the location at which the initial retail sale occurs. This generally means a vessel dealership or manufacturing facility, but may also include an engine seller or distributor in cases where loose engines are sold to the general public for uses such as replacement engines.

*Post-manufacture marinizer* means an entity that produces a marine engine by modifying a non-marine engine, whether certified or uncertified, complete or partially complete, where the entity is not controlled by the manufacturer of the base engine or by an entity that also controls the manufacturer of the base engine. In addition, vessel manufacturers that substantially modify marine engines are post-manufacture marinizers. For the purpose of this definition, ''substantially modify'' means changing an engine in a way that could change engine emission characteristics.

*Power density* has the meaning given in § 1042.140.

*Ramped-modal* means relating to the ramped-modal type of steady-state test described in § 1042.505.

*Rated speed* means the maximum full-load governed speed for governed engines and the speed of maximum power for ungoverned engines.

*Recreational marine engine* means a Category 1 propulsion marine engine that is intended by the manufacturer to be installed on a recreational vessel.

*Recreational vessel* means a vessel that is intended by the vessel manufacturer to be operated primarily for pleasure or leased, rented or chartered to another for the latter's pleasure. However, this does not include the following vessels:

(1) Vessels below 100 gross tons that carry more than 6 passengers.

(2) Vessels at or above 100 gross tons that carry one or more passengers.

(3) Vessels used solely for competition (see § 1042.620).

*Remanufacture* means to replace every cylinder liner in a commercial engine with maximum engine power at or above 600 kW, whether during a single maintenance event or cumulatively within a five-year period. For the purpose of this definition, ''replace'' includes removing, inspecting, and requalifying a liner. Rebuilding a recreational engine or an engine with maximum engine power below 600 kW is not remanufacturing.

*Remanufacture system* or *remanufacturing system* means all components (or specifications for components) and instructions necessary to remanufacture an engine in accordance with applicable requirements of this part 1042.

*Remanufacturer* has the meaning given to ''manufacturer'' in section 216(1) of the Clean Air Act (42 U.S.C. 7550(1)) with respect to remanufactured marine engines. This term includes any person that is engaged in the manufacture or assembly of remanufactured engines, such as persons who:

(1) Design or produce the emission-related parts used in remanufacturing.

(2) Install parts in or on an existing engine to remanufacture it.

(3) Own or operate the engine and provide specifications as to how an engine is to be remanufactured (i.e., specifying who will perform the work, when the work is to be performed, what parts are to be used, or how to calibrate the adjustable parameters of the engine).

*Residual fuel* has the meaning given in 40 CFR 80.2. This generally includes all RM grades of marine fuel without regard to whether they are known commercially as residual fuel. For example, fuel marketed as intermediate fuel may be residual fuel.

*Revoke* has the meaning given in 40 CFR 1068.30. In general this means to terminate the certificate or an exemption for an engine family.

*Round* has the meaning given in 40 CFR 1065.1001.

*Scheduled maintenance* means adjusting, repairing, removing, disassembling, cleaning, or replacing components or systems periodically to keep a part or system from failing, malfunctioning, or wearing prematurely. It also may mean actions you expect are necessary to correct an overt indication of failure or malfunction for which periodic maintenance is not appropriate.

*Small volume boat builder* means a boat manufacturer with fewer than 500 employees and with annual worldwide production of fewer than 100 boats. For manufacturers owned by a parent company, these limits apply to the combined production and number of employees of the parent company and all its subsidiaries.

*Small-volume engine manufacturer* means a manufacturer with annual worldwide production of fewer than 1,000 internal combustion engines (marine and nonmarine). For manufacturers owned by a parent company, the limit applies to the

production of the parent company and all its subsidiaries.

*Spark-ignition* means relating to a gasoline-fueled engine or any other type of engine with a spark plug (or other sparking device) and with operating characteristics significantly similar to the theoretical Otto combustion cycle. Spark-ignition engines usually use a throttle to regulate intake air flow to control power during normal operation.

*Specified adjustable range* means a range of adjustment for an adjustable parameter that is approved as part of certification. Note that Category 1 engines must comply with emission standards over the full physically adjustable range for any adjustable parameters.

*Steady-state* has the meaning given in 40 CFR 1065.1001.

*Sulfur-sensitive technology* means an emission control technology that experiences a significant drop in emission control performance or emission-system durability when an engine is operated on low-sulfur fuel (i.e., fuel with a sulfur concentration of 300 to 500 ppm) as compared to when it is operated on ultra low-sulfur fuel (i.e., fuel with a sulfur concentration less than 15 ppm). Exhaust-gas recirculation is not a sulfur-sensitive technology.

*Suspend* has the meaning given in 40 CFR 1068.30. In general this means to temporarily discontinue the certificate or an exemption for an engine family.

*Temporary modification* means a modification to a vessel based on a written contract for marine services such that the modifications will be removed from the vessel when the contract expires. This provision is intended to address short-term contracts that would generally be less than 12 months in duration. You may ask us to consider modifications that will be in place longer than 12 months as temporary modifications.

*Test engine* means an engine in a test sample.

*Test sample* means the collection of engines selected from the population of an engine family for emission testing. This may include testing for certification, production-line testing, or in-use testing.

*Tier 1* means relating to the Tier 1 emission standards, as shown in Appendix I.

*Tier 2* means relating to the Tier 2 emission standards, as shown in Appendix I.

*Tier 3* means relating to the Tier 3 emission standards, as shown in § 1042.101.

*Tier 4* means relating to the Tier 4 emission standards, as shown in § 1042.101.

*Total hydrocarbon* has the meaning given in 40 CFR 1065.1001. This generally means the combined mass of organic compounds measured by the specified procedure for measuring total hydrocarbon, expressed as a hydrocarbon with an atomic hydrogen-to-carbon ratio of 1.85:1.

*Total hydrocarbon equivalent* has the meaning given in 40 CFR 1065.1001. This generally means the sum of the carbon mass contributions of non-oxygenated hydrocarbons, alcohols and aldehydes, or other organic compounds that are measured separately as contained in a gas sample, expressed as exhaust hydrocarbon from petroleum-fueled locomotives. The hydrogen-to-carbon ratio of the equivalent hydrocarbon is 1.85:1.

*Ultimate purchaser* means, with respect to any new vessel or new marine engine, the first person who in good faith purchases such new vessel or new marine engine for purposes other than resale.

*Ultra low-sulfur diesel fuel* means one of the following:

(1) For in-use fuels, *ultra low-sulfur diesel fuel* means a diesel fuel marketed as ultra low-sulfur diesel fuel having a maximum sulfur concentration of 15 parts per million.

(2) For testing, *ultra low-sulfur diesel fuel* has the meaning given in 40 CFR part 1065.

*United States* has the meaning given in 40 CFR 1068.30.

*Upcoming model year* means for an engine family the model year after the one currently in production.

*U.S.-directed production volume* means the number of engine units, subject to the requirements of this part, produced by a manufacturer for which the manufacturer has a reasonable assurance that sale was or will be made to ultimate purchasers in the United States.

*Useful life* means the period during which the engine is designed to properly function in terms of reliability and fuel consumption, without being remanufactured, specified as a number of hours of operation or calendar years, whichever comes first. It is the period during which a new engine is required to comply with all applicable emission standards. See § 1042.101(e).

*Variable-speed engine* means an engine that is not a constant-speed engine.

*Vessel* means a marine vessel.

*Vessel operator* means any individual that physically operates or maintains a vessel or exercises managerial control over the operation of the vessel.

*Vessel owner* means the individual or company that holds legal title to a vessel.

*Void* has the meaning given in 40 CFR 1068.30. In general this means to invalidate a certificate or an exemption both retroactively and prospectively.

*Volatile liquid fuel* means any fuel other than diesel fuel or biodiesel that is a liquid at atmospheric pressure and has a Reid Vapor Pressure higher than 2.0 pounds per square inch.

*We (us, our)* means the Administrator of the Environmental Protection Agency and any authorized representatives.

### § 1042.905 Symbols, acronyms, and abbreviations.

The following symbols, acronyms, and abbreviations apply to this part:

ABT Averaging, banking, and trading.
AECD auxiliary-emission control device.
CFR Code of Federal Regulations.
CO carbon monoxide.
$CO_2$ carbon dioxide.
cyl cylinder.
disp. displacement.
EPA Environmental Protection Agency.
FEL Family Emission Limit.
g grams.
HC hydrocarbon.
hr hours.
kPa kilopascals.
kW kilowatts.
L liters.
LTR Limited Testing Region.
NARA National Archives and Records Administration.
NMHC nonmethane hydrocarbons.
$NO_X$ oxides of nitrogen (NO and $NO_2$).
NTE not-to-exceed.
PM particulate matter.
RPM revolutions per minute.
SAE Society of Automotive Engineers.
SCR selective catalytic reduction.
THC total hydrocarbon.
THCE total hydrocarbon equivalent.
ULSD ultra low-sulfur diesel fuel.
U.S.C. United States Code.

### § 1042.910 Reference materials.

Documents listed in this section have been incorporated by reference into this part. The Director of the Federal Register approved the incorporation by reference as prescribed in 5 U.S.C. 552(a) and 1 CFR part 51. Anyone may inspect copies at the U.S. EPA, Air and Radiation Docket and Information Center, 1301 Constitution Ave., NW., Room B102, EPA West Building, Washington, DC 20460 or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030, or go to: *http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html*.

(a) *SAE material.* Table 1 to this section lists material from the Society of Automotive Engineers that we have incorporated by reference. The first column lists the number and name of the material. The second column lists the sections of this part where we reference it. Anyone may purchase copies of these materials from the Society of Automotive Engineers, 400 Commonwealth Drive, Warrendale, PA 15096 or *www.sae.org.* Table 1 follows:

TABLE 1 TO §1042.910.—SAE MATERIALS

| Document No. and name | Part 1042 reference |
|---|---|
| SAE J1930, Electrical/Electronic Systems Diagnostic Terms, Definitions, Abbreviations, and Acronyms, revised May 1998 ..... | 1042.135 |

(b) *IMO material.* Table 2 to this section lists material from the International Maritime Organization that we have incorporated by reference. The first column lists the number and name of the material. The second column lists the section of this part where we reference it. Anyone may purchase copies of these materials from the International Maritime Organization, 4 Albert Embankment, London SE1 7SR, United Kingdom or *www.imo.org.* Table 2 follows:

TABLE 2 TO §1042.910.—IMO MATERIALS

| Document No. and name | Part 1042 reference |
|---|---|
| Resolutions of the 1997 MARPOL Conference: Resolution 2—Technical Code on Control of Emission of Nitrogen Oxides from Marine Diesel Engines, 1997 ..... | 1042.901 |

**§ 1042.915 Confidential information.**

(a) Clearly show what you consider confidential by marking, circling, bracketing, stamping, or some other method.

(b) We will store your confidential information as described in 40 CFR part 2. Also, we will disclose it only as specified in 40 CFR part 2. This applies both to any information you send us and to any information we collect from inspections, audits, or other site visits.

(c) If you send us a second copy without the confidential information, we will assume it contains nothing confidential whenever we need to release information from it.

(d) If you send us information without claiming it is confidential, we may make it available to the public without further notice to you, as described in 40 CFR 2.204.

**§ 1042.920 Hearings.**

(a) You may request a hearing under certain circumstances, as described elsewhere in this part. To do this, you must file a written request, including a description of your objection and any supporting data, within 30 days after we make a decision.

(b) For a hearing you request under the provisions of this part, we will approve your request if we find that your request raises a substantial factual issue.

(c) If we agree to hold a hearing, we will use the procedures specified in 40 CFR part 1068, subpart G.

**§ 1042.925 Reporting and recordkeeping requirements.**

Under the Paperwork Reduction Act (44 U.S.C. 3501 et seq.), the Office of Management and Budget approves the reporting and recordkeeping specified in the applicable regulations. The following items illustrate the kind of reporting and recordkeeping we require for engines regulated under this part:

(a) We specify the following requirements related to engine certification in this part 1042:

(1) In §1042.135 we require engine manufacturers to keep certain records related to duplicate labels sent to vessel manufacturers.

(2) In §1042.145 we state the requirements for interim provisions.

(3) In subpart C of this part we identify a wide range of information required to certify engines.

(4) In §§1042.345 and 1042.350 we specify certain records related to production-line testing.

(5) In subpart G of this part we identify several reporting and recordkeeping items for making demonstrations and getting approval related to various special compliance provisions.

(6) In §§1042.725, 1042.730, and 1042.735 we specify certain records related to averaging, banking, and trading.

(7) In subpart I of this part we specify certain records related to meeting requirements for remanufactured engines.

(b) We specify the following requirements related to testing in 40 CFR part 1065:

(1) In 40 CFR 1065.2 we give an overview of principles for reporting information.

(2) In 40 CFR 1065.10 and 1065.12 we specify information needs for establishing various changes to published test procedures.

(3) In 40 CFR 1065.25 we establish basic guidelines for storing test information.

(4) In 40 CFR 1065.695 we identify data that may be appropriate for collecting during testing of in-use engines using portable analyzers.

(c) We specify the following requirements related to the general compliance provisions in 40 CFR part 1068:

(1) In 40 CFR 1068.5 we establish a process for evaluating good engineering judgment related to testing and certification.

(2) In 40 CFR 1068.25 we describe general provisions related to sending and keeping information.

(3) In 40 CFR 1068.27 we require manufacturers to make engines available for our testing or inspection if we make such a request.

(4) In 40 CFR 1068.105 we require vessel manufacturers to keep certain records related to duplicate labels from engine manufacturers.

(5) In 40 CFR 1068.120 we specify recordkeeping related to rebuilding engines.

(6) In 40 CFR part 1068, subpart C, we identify several reporting and recordkeeping items for making demonstrations and getting approval related to various exemptions.

(7) In 40 CFR part 1068, subpart D, we identify several reporting and recordkeeping items for making demonstrations and getting approval related to importing engines.

(8) In 40 CFR 1068.450 and 1068.455 we specify certain records related to testing production-line engines in a selective enforcement audit.

(9) In 40 CFR 1068.501 we specify certain records related to investigating and reporting emission-related defects.

(10) In 40 CFR 1068.525 and 1068.530 we specify certain records related to recalling nonconforming engines.

## Appendix I to Part 1042.—Summary of Previous Emission Standards

The following standards apply to compression-ignition marine engines produced before the model years specified in § 1042.1:

(a) *Engines below 37 kW.* Tier 1 and Tier 2 standards for engines below 37 kW apply as specified in 40 CFR part 89 and summarized in the following table:

TABLE 1 TO APPENDIX I.—EMISSION STANDARDS FOR ENGINES BELOW 37 kW (G/kW-HR)

| Rated power (kW) | Tier | Model year | NMHC + $NO_X$ | CO | PM |
|---|---|---|---|---|---|
| kW<8 | Tier 1 | 2000 | 10.5 | 8.0 | 1.0 |
| | Tier 2 | 2005 | 7.5 | 8.0 | 0.80 |
| 8≤kW<19 | Tier 1 | 2000 | 9.5 | 6.6 | 0.80 |
| | Tier 2 | 2005 | 7.5 | 6.6 | 0.80 |
| 19≤kW<37 | Tier 1 | 1999 | 9.5 | 5.5 | 0.8 |
| | Tier 2 | 2004 | 7.5 | 5.5 | 0.6 |

(b) *Engines at or above 37 kW.* Tier 1 and Tier 2 standards for engines at or above 37 kW apply as specified in 40 CFR part 94 and summarized as follows:

(1) *Tier 1 standards.* $NO_X$ emissions from model year 2004 and later engines with displacement of 2.5 or more liters per cylinder may not exceed the following values:

(i) 17.0 g/kW-hr when maximum test speed is less than 130 rpm.

(ii) $45.0 \times N^{-0.20}$ when maximum test speed is at or above 130 but below 2000 rpm, where N is the maximum test speed of the engine in revolutions per minute. Round the calculated standard to the nearest 0.1 g/kW-hr.

(ii) 9.8 g/kW-hr when maximum test speed is 2000 rpm or more.

(2) *Tier 2 primary standards.* Exhaust emissions may not exceed the values shown in the following table:

TABLE 2 TO APPENDIX I.—PRIMARY TIER 2 EMISSION STANDARDS FOR COMMERCIAL AND RECREATIONAL MARINE ENGINES AT OR ABOVE 37 kW (G/kW-HR)

| Engine size liters/cylinder | Maximum engine power | Category | Model year | $NO_X$ + THC g/kW-hr | CO g/kW-hr | PM g/kW-hr |
|---|---|---|---|---|---|---|
| disp. < 0.9 | power ≥ 37 kW | Category 1 Commercial | 2005 | 7.5 | 5.0 | 0.40 |
| | | Category 1 Recreational | 2007 | 7.5 | 5.0 | 0.40 |
| 0.9 ≤ disp. < 1.2 | All | Category 1 Commercial | 2004 | 7.2 | 5.0 | 0.30 |
| | | Category 1 Recreational | 2006 | 7.2 | 5.0 | 0.30 |
| 1.2 ≤ disp. < 2.5 | All | Category 1 Commercial | 2004 | 7.2 | 5.0 | 0.20 |
| | | Category 1 Recreational | 2006 | 7.2 | 5.0 | 0.20 |
| 2.5 ≤ disp. < 5.0 | All | Category 1 Commercial | 2007 | 7.2 | 5.0 | 0.20 |
| | | Category 1 Recreational | 2009 | 7.2 | 5.0 | 0.20 |
| 5.0 ≤ disp. < 15.0 | All | Category 2 | 2007 | 7.8 | 5.0 | 0.27 |
| 15.0 ≤ disp. < 20.0 | power < 3300 kW | Category 2 | 2007 | 8.7 | 5.0 | 0.50 |
| | power ≥ 3300 kW | Category 2 | 2007 | 9.8 | 5.0 | 0.50 |
| 20.0 ≤ disp. < 25.0 | All | Category 2 | 2007 | 9.8 | 5.0 | 0.50 |
| 25.0 ≤ disp. < 30.0 | All | Category 2 | 2007 | 11 | 5.0 | 0.5 |

(3) *Tier 2 supplemental standards.* Not-to-exceed emission standards apply for Tier 2 engines as specified in 40 CFR 94.8(e).

## Appendix II to Part 1042—Steady-State Duty Cycles

(a) The following duty cycles apply as specified in § 1042.505(b)(1):

(1) The following duty cycle applies for discrete-mode testing:

| E3 mode No. | Engine speed [1] | Percent of maximum test power | Weighting factors |
|---|---|---|---|
| 1 | Maximum test speed | 100 | 0.2 |
| 2 | 91% | 75 | 0.5 |
| 3 | 80% | 50 | 0.15 |
| 4 | 63% | 25 | 0.15 |

[1] Speed terms are defined in 40 CFR part 1065. Percent speed values are relative to maximum test speed.

(2) The following duty cycle applies for ramped-modal testing:

| RMC mode | Time in mode (seconds) | Engine speed [1, 3] | Power (percent) [2, 3] |
|---|---|---|---|
| 1a Steady-state | 229 | Maximum test speed | 100%. |
| 1b Transition | 20 | Linear transition | Linear transition in torque. |
| 2a Steady-state | 166 | 63% | 25%. |
| 2b Transition | 20 | Linear transition | Linear transition in torque. |
| 3a Steady-state | 570 | 91% | 75%. |
| 3b Transition | 20 | Linear transition | Linear transition in torque. |
| 4a Steady-state | 175 | 80% | 50%. |

[1] Speed terms are defined in 40 CFR part 1065. Percent speed is relative to maximum test speed.
[2] The percent power is relative to the maximum test power.

[3] Advance from one mode to the next within a 20-second transition phase. During the transition phase, command a linear progression from the torque setting of the current mode to the torque setting of the next mode, and simultaneously command a similar linear progression for engine speed if there is a change in speed setting.

(b) The following duty cycles apply as specified in § 1042.505(b)(2):

(1) The following duty cycle applies for discrete-mode testing:

| E5 mode No. | Engine speed [1] | Percent of maximum test power | Weighting factors |
|---|---|---|---|
| 1 | Maximum test speed | 100 | 0.08 |
| 2 | 91% | 75 | 0.13 |
| 3 | 80% | 50 | 0.17 |
| 4 | 63% | 25 | 0.32 |
| 5 | Warm idle | 0 | 0.3 |

[1] Speed terms are defined in 40 CFR part 1065. Percent speed values are relative to maximum test speed.

(2) The following duty cycle applies for ramped-modal testing:

| RMC mode | Time in mode (seconds) | Engine speed [1, 3] | Power (percent) [2, 3] |
|---|---|---|---|
| 1a Steady-state | 167 | Warm idle | 0. |
| 1b Transition | 20 | Linear transition | Linear transition in torque. |
| 2a Steady-state | 85 | Maximum test speed | 100%. |
| 2b Transition | 20 | Linear transition | Linear transition in torque. |
| 3a Steady-state | 354 | 63% | 25%. |
| 3b Transition | 20 | Linear transition | Linear transition in torque. |
| 4a Steady-state | 141 | 91% | 75%. |
| 4b Transition | 20 | Linear transition | Linear transition in torque. |
| 5a Steady-state | 182 | 80% | 50%. |
| 5b Transition | 20 | Linear transition | Linear transition in torque. |
| 6 Steady-state | 171 | Warm idle | 0. |

[1] Speed terms are defined in 40 CFR part 1065. Percent speed is relative to maximum test speed.
[2] The percent power is relative to the maximum test power.
[3] Advance from one mode to the next within a 20-second transition phase. During the transition phase, command a linear progression from the torque setting of the current mode to the torque setting of the next mode, and simultaneously command a similar linear progression for engine speed if there is a change in speed setting.

(c) The following duty cycles apply as specified in § 1042.505(b)(3):

(1) The following duty cycle applies for discrete-mode testing:

| E2 mode No. | Engine speed [1] | Torque (percent) [2] | Weighting factors |
|---|---|---|---|
| 1 | Engine Governed | 100 | 0.2 |
| 2 | Engine Governed | 75 | 0.5 |
| 3 | Engine Governed | 50 | 0.15 |
| 4 | Engine Governed | 25 | 0.15 |

[1] Speed terms are defined in 40 CFR part 1065.
[2] The percent torque is relative to the maximum test torque as defined in 40 CFR part 1065.

(2) The following duty cycle applies for ramped-modal testing:

| RMC mode | Time in mode (seconds) | Engine speed | Torque (percent) [1, 2] |
|---|---|---|---|
| 1a Steady-state | 234 | Engine Governed | 100%. |
| 1b Transition | 20 | Engine Governed | Linear transition. |
| 2a Steady-state | 571 | Engine Governed | 25%. |
| 2b Transition | 20 | Engine Governed | Linear transition. |
| 3a Steady-state | 165 | Engine Governed | 75%. |
| 3b Transition | 20 | Engine Governed | Linear transition. |
| 4a Steady-state | 170 | Engine Governed | 50%. |

[1] The percent torque is relative to the maximum test torque as defined in 40 CFR part 1065.
[2] Advance from one mode to the next within a 20-second transition phase. During the transition phase, command a linear progression from the torque setting of the current mode to the torque setting of the next mode.

**Appendix III to Part 1042—Not-to-Exceed Zones**

(a) The following definitions apply for this Appendix III:

(1) *Percent power* means the percentage of the maximum power achieved at Maximum Test Speed (or at Maximum Test Torque for constant-speed engines).

(2) *Percent speed* means the percentage of Maximum Test Speed.

(b) Figure 1 of this Appendix illustrates the default NTE zone for commercial marine engines certified using the duty cycle specified in § 1042.505(b)(1), except for variable-speed propulsion marine engines used with controllable-pitch propellers or with electrically coupled propellers, as follows:

(1) Subzone 1 is defined by the following boundaries:

(i) Percent power ≥ 0.7 · (percent speed)$^{2.5}$.

(ii) Percent power ≤ (percent speed/0.9)$^{3.5}$.

(iii) Percent power ≥ 3.0 · (100%—percent speed).

(2) Subzone 2 is defined by the following boundaries:

(i) Percent power ≥ 0.7 · (percent speed)$^{2.5}$.

(ii) Percent power ≤ (percent speed/0.9)$^{3.5}$.

(iii) Percent power < 3.0 · (100% − percent speed).

(iv) Percent speed ≥ 70 percent.

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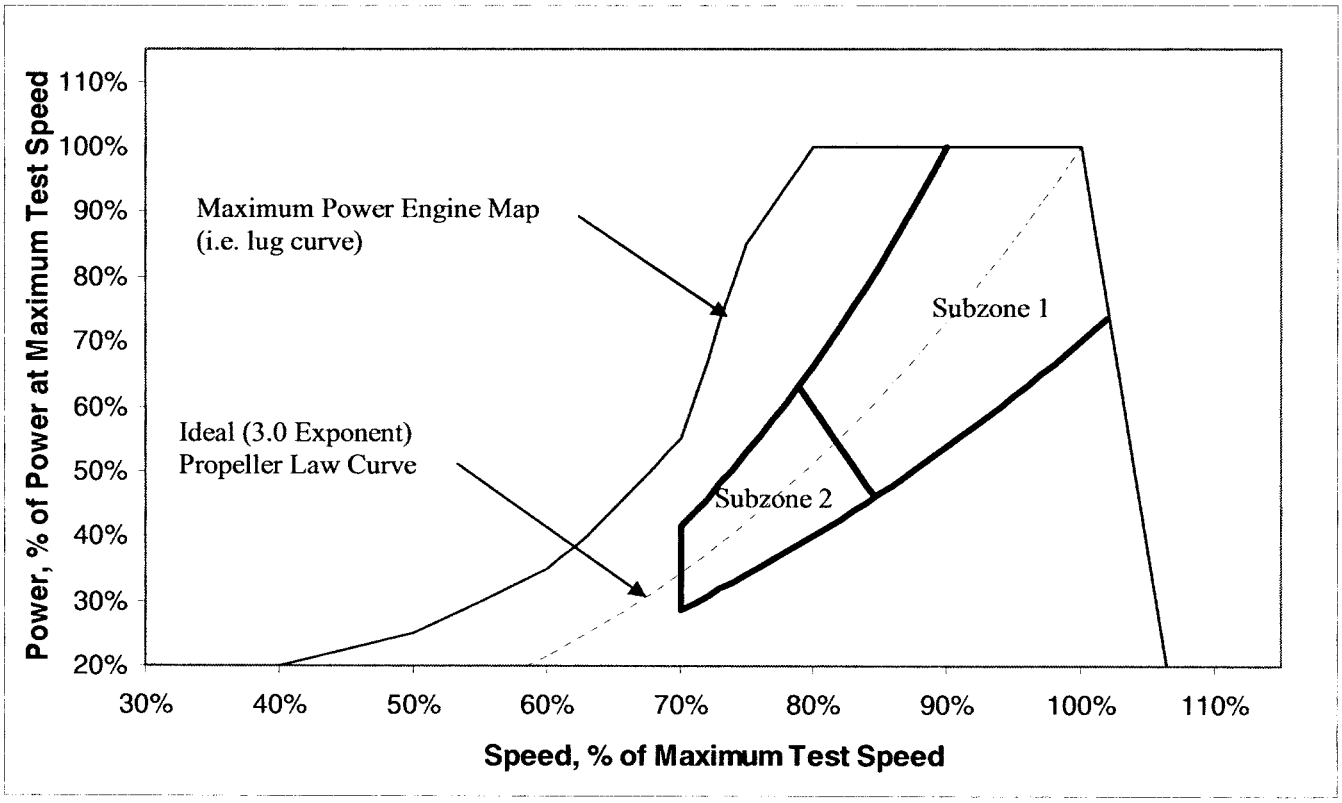
Figure 1 of Appendix III — NTE Zone and Subzones for Propeller-Law Commercial Marine Engines




(c) Figure 2 of this Appendix illustrates the default NTE zone for recreational marine engines certified using the duty cycle specified in § 1042.505(b)(2), except for variable-speed marine engines used with controllable-pitch propellers or with electrically coupled propellers, as follows:

(1) Subzone 1 is defined by the following boundaries:

(i) Percent power ≥ 0.7 · (percent speed)$^{2.5}$.

(ii) Percent power ≤ (percent speed/0.9)$^{3.5}$.

(iii) Percent power ≥ 3.0 · (100% − percent speed).

(iv) Percent power ≤ 95 percent.

(2) Subzone 2 is defined by the following boundaries:

(i) Percent power ≥ 0.7 · (percent speed)$^{2.5}$.

(ii) Percent power ≤ (percent speed/0.9)$^{3.5}$.

(iii) Percent power < 3.0 · (100% − percent speed).

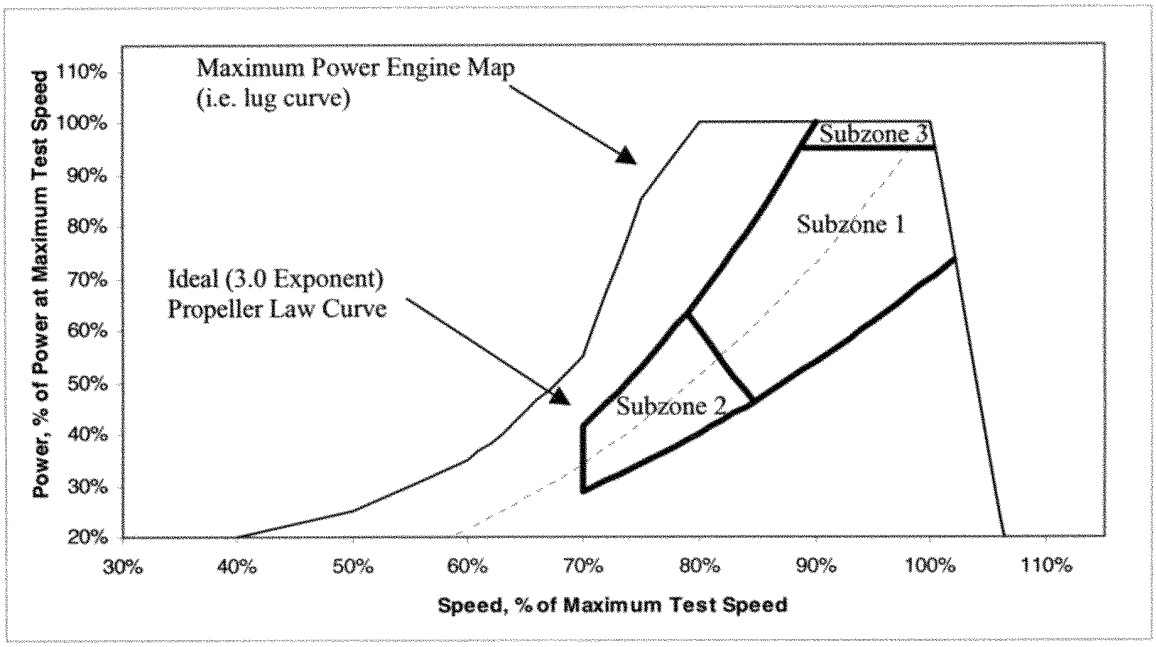
(iv) Percent speed ≥ 70 percent.

(3) Subzone 3 is defined by the following boundaries:

(i) Percent power ≤ (percent speed/0.9)$^{3.5}$.

(ii) Percent power > 95 percent.

Figure 2 of Appendix III — NTE Zone and Subzones for Propeller-Law Recreational Marine Engines




(d) Figure 3 of this Appendix illustrates the default NTE zone for variable-speed marine engines used with controllable-pitch propellers or with electrically coupled propellers that are certified using the duty cycle specified in § 1042.505(b)(1), (2), or (3), as follows:

(1) Subzone 1 is defined by the following boundaries:

(i) Percent power ≥ 0.7 · (percent speed)$^{2.5}$.

(ii) Percent power ≥ 3.0 · (100% − percent speed).

(iii) Percent speed ≥ 78.9 percent.

(2) Subzone 2a is defined by the following boundaries:

(i) Percent power ≥ 0.7 · (percent speed)$^{2.5}$.

(ii) Percent speed ≥ 70 percent.

(iii) Percent speed < 78.9 percent, for Percent power > 63.3 percent.

(iv) Percent power < 3.0 · (100% − percent speed), for Percent speed ≥ 78.9 percent.

(3) Subzone 2b is defined by the following boundaries:

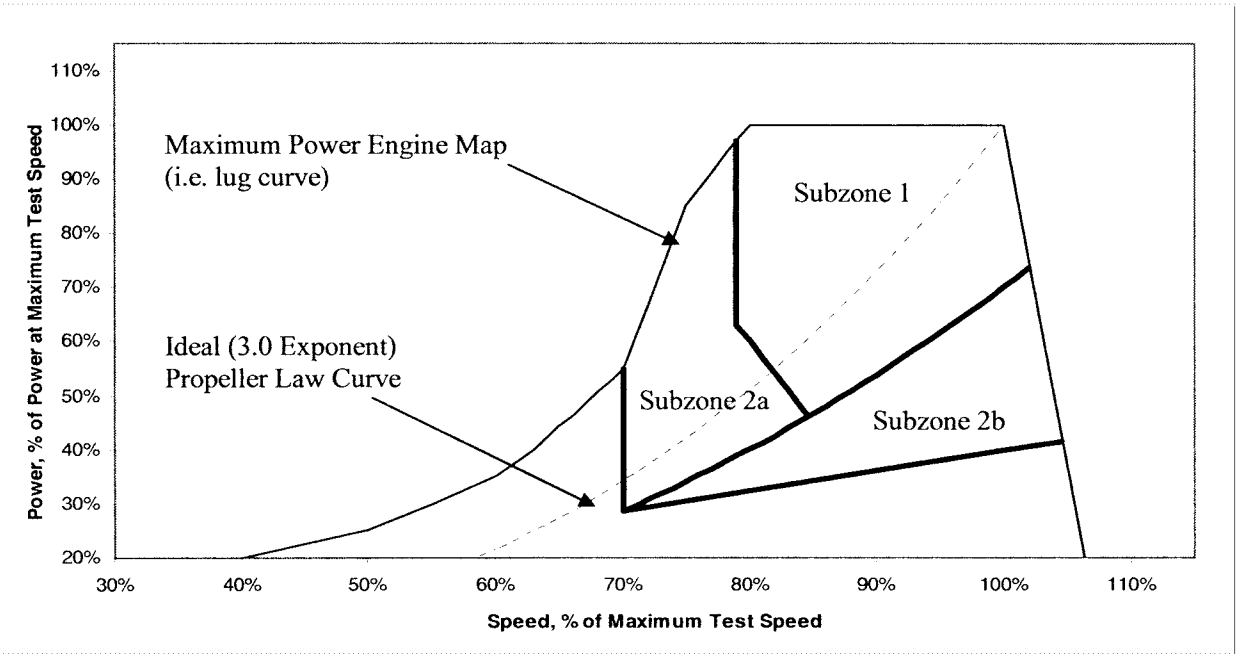
(i) The line formed by connecting the following two points on a plot of speed-vs.-power:

(A) Percent speed = 70 percent; Percent power = 28.7 percent.

(B) Percent speed = 40 percent at governed speed; Percent power = 40 percent.

(ii) Percent power < 0.7 · (percent speed)$^{2.5}$.

Figure 3 of Appendix III — NTE Zone and Subzones for Variable-Pitch or Electronically Coupled Engines*




*shown for engines capable of operating on the E3 Duty Cycle

(e) Figure 4 of this Appendix illustrates the default NTE zone for constant-speed engines certified using a duty cycle specified in § 1042.505(b)(3) or (b)(4), as follows:

(1) Subzone 1 is defined by the following boundaries:

(i) Percent power ≥ 70 percent.

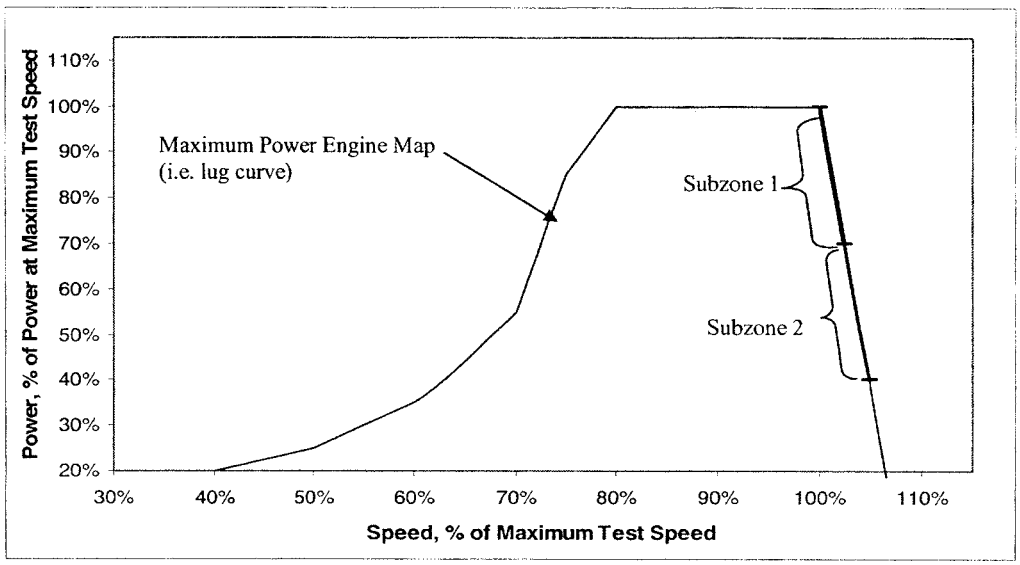
(ii) [Reserved]

(2) Subzone 2 is defined by the following boundaries:

(i) Percent power < 70 percent.

(ii) Percent power ≥ 40 percent.

Figure 4 of Appendix III — NTE Zone and Subzones for Constant-Speed Marine Engines



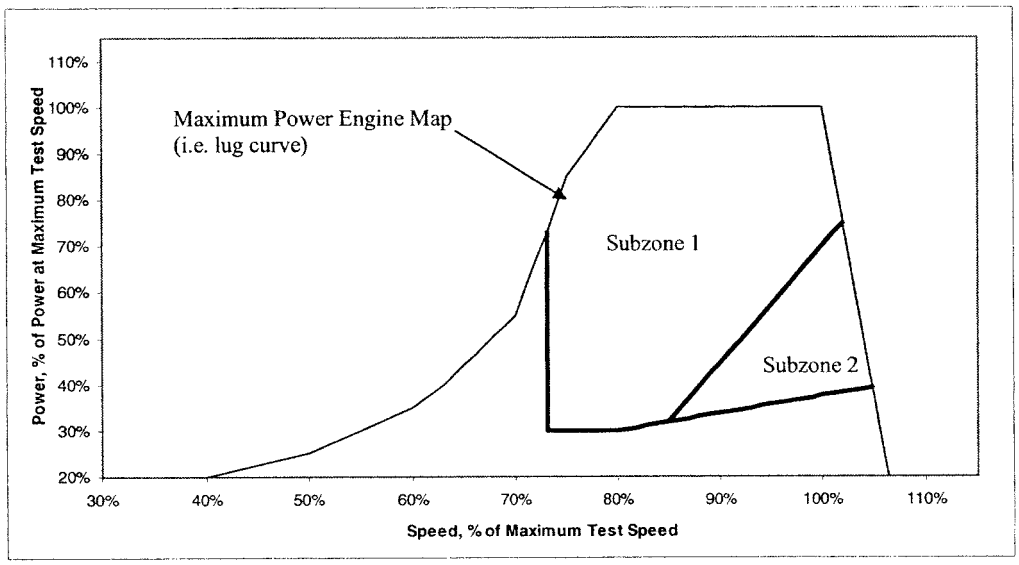
(f) Figure 5 of this Appendix illustrates the default NTE zone for variable-speed auxiliary marine engines certified using the duty cycle specified in § 1042.505(b)(5)(ii) or (iii), as follows:

(1) The default NTE zone is defined by the boundaries specified in 40 CFR 86.1370–2007(b)(1) and (2).

(2) A special PM subzone is defined in 40 CFR 1039.515(b).

Figure 5 of Appendix III — NTE Zone and Subzones for

Variable-Speed Auxiliary Marine Engines (nonpropeller-law)




## PART 1065—ENGINE-TESTING PROCEDURES

■ 45. The authority citation for part 1065 continues to read as follows:

**Authority:** 42 U.S.C. 7401–7671q.

## Subpart A—[Amended]

■ 46. Section 1065.1 is revised to read as follows:

### § 1065.1 Applicability.

(a) This part describes the procedures that apply to testing we require for the following engines or for vehicles using the following engines:

(1) Locomotives we regulate under 40 CFR part 1033. For earlier model years, manufacturers may use the test procedures in this part or those specified in 40 CFR part 92 according to § 1065.10.

(2) Model year 2010 and later heavy-duty highway engines we regulate under 40 CFR part 86. For earlier model years, manufacturers may use the test procedures in this part or those specified in 40 CFR part 86, subpart N, according to § 1065.10.

(3) Nonroad diesel engines we regulate under 40 CFR part 1039 and stationary diesel engines that are certified to the standards in 40 CFR part 1039 as specified in 40 CFR part 60, subpart IIII. For earlier model years, manufacturers may use the test procedures in this part or those specified in 40 CFR part 89 according to § 1065.10.

(4) Marine diesel engines we regulate under 40 CFR part 1042. For earlier model years, manufacturers may use the test procedures in this part or those specified in 40 CFR part 94 according to § 1065.10.

(5) [Reserved]

(6) Large nonroad spark-ignition engines we regulate under 40 CFR part 1048, and stationary engines that are certified to the standards in 40 CFR part 1048 or as otherwise specified in 40 CFR part 60, subpart JJJJ.

(7) Vehicles we regulate under 40 CFR part 1051 (such as snowmobiles and off-highway motorcycles) based on engine testing. See 40 CFR part 1051, subpart F, for standards and procedures that are based on vehicle testing.

(8) [Reserved]

(b) The procedures of this part may apply to other types of engines, as described in this part and in the standard-setting part.

(c) The term ''you'' means anyone performing testing under this part other than EPA.

(1) This part is addressed primarily to manufacturers of engines, vehicles, equipment, and vessels, but it applies equally to anyone who does testing under this part for such manufacturers.

(2) This part applies to any manufacturer or supplier of test equipment, instruments, supplies, or any other goods or services related to the procedures, requirements, recommendations, or options in this part.

(d) Paragraph (a) of this section identifies the parts of the CFR that define emission standards and other requirements for particular types of engines. In this part, we refer to each of these other parts generically as the ''standard-setting part.'' For example, 40 CFR part 1051 is always the standard-setting part for snowmobiles and part 86 is the standard-setting part for heavy-duty highway engines.

(e) Unless we specify otherwise, the terms ''procedures'' and ''test procedures'' in this part include all aspects of engine testing, including the equipment specifications, calibrations, calculations, and other protocols and procedural specifications needed to measure emissions.

(f) For vehicles, equipment, or vessels subject to this part and regulated under

vehicle-based, equipment-based, or vessel-based standards, use good engineering judgment to interpret the term ''engine'' in this part to include vehicles, equipment, or vessels, where appropriate.

(g) For additional information regarding these test procedures, visit our Web site at *www.epa.gov*, and in particular *http://www.epa.gov/otaq/testingregs.htm*.

■ 47. Section 1065.2 is revised to read as follows:

**§ 1065.2 Submitting information to EPA under this part.**

(a) You are responsible for statements and information in your applications for certification, requests for approved procedures, selective enforcement audits, laboratory audits, production-line test reports, field test reports, or any other statements you make to us related to this part 1065.

(b) In the standard-setting part and in 40 CFR 1068.101, we describe your obligation to report truthful and complete information and the consequences of failing to meet this obligation. See also 18 U.S.C. 1001 and 42 U.S.C. 7413(c)(2).

(c) We may void any certificates or approvals associated with a submission of information if we find that you intentionally submitted false, incomplete, or misleading information. For example, if we find that you intentionally submitted incomplete information to mislead EPA when requesting approval to use alternate test procedures, we may void the certificates for all engines families certified based on emission data collected using the alternate procedures. This would also apply if you ignore data from incomplete tests or from repeat tests with higher emission results.

(d) We may require an authorized representative of your company to approve and sign the submission, and to certify that all of the information submitted is accurate and complete. This includes everyone who submits information, including manufacturers and others.

(e) See 40 CFR 1068.10 for provisions related to confidential information. Note however that under 40 CFR 2.301, emission data is generally not eligible for confidential treatment.

(f) Nothing in this part should be interpreted to limit our ability under Clean Air Act section 208 (42 U.S.C. 7542) to verify that engines conform to the regulations.

■ 48. Section 1065.5 is revised to read as follows:

**§ 1065.5 Overview of this part 1065 and its relationship to the standard-setting part.**

(a) This part specifies procedures that apply generally to testing various categories of engines. See the standard-setting part for directions in applying specific provisions in this part for a particular type of engine. Before using this part's procedures, read the standard-setting part to answer at least the following questions:

(1) What duty cycles must I use for laboratory testing?

(2) Should I warm up the test engine before measuring emissions, or do I need to measure cold-start emissions during a warm-up segment of the duty cycle?

(3) Which exhaust gases do I need to measure?

(4) Do any unique specifications apply for test fuels?

(5) What maintenance steps may I take before or between tests on an emission-data engine?

(6) Do any unique requirements apply to stabilizing emission levels on a new engine?

(7) Do any unique requirements apply to test limits, such as ambient temperatures or pressures?

(8) Is field testing required or allowed, and are there different emission standards or procedures that apply to field testing?

(9) Are there any emission standards specified at particular engine-operating conditions or ambient conditions?

(10) Do any unique requirements apply for durability testing?

(b) The testing specifications in the standard-setting part may differ from the specifications in this part. In cases where it is not possible to comply with both the standard-setting part and this part, you must comply with the specifications in the standard-setting part. The standard-setting part may also allow you to deviate from the procedures of this part for other reasons.

(c) The following table shows how this part divides testing specifications into subparts:

TABLE 1 OF § 1065.5.—DESCRIPTION OF PART 1065 SUBPARTS

| This subpart | Describes these specifications or procedures |
|---|---|
| Subpart A | Applicability and general provisions. |
| Subpart B | Equipment for testing. |
| Subpart C | Measurement instruments for testing. |
| Subpart D | Calibration and performance verifications for measurement systems. |
| Subpart E | How to prepare engines for testing, including service accumulation. |
| Subpart F | How to run an emission test over a predetermined duty cycle. |
| Subpart G | Test procedure calculations. |
| Subpart H | Fuels, engine fluids, analytical gases, and other calibration standards. |
| Subpart I | Special procedures related to oxygenated fuels. |
| Subpart J | How to test with portable emission measurement systems (PEMS). |

■ 49. Section 1065.10 is amended by revising paragraphs (c)(1), (c)(2), (c)(6), and (c)(7) introductory text to read as follows:

**§ 1065.10 Other procedures.**

* * * * *

(c) * * *

(1) The objective of the procedures in this part is to produce emission measurements equivalent to those that would result from measuring emissions during in-use operation using the same engine configuration as installed in a vehicle, equipment, or vessel. However, in unusual circumstances where these procedures may result in measurements that do not represent in-use operation, you must notify us if good engineering judgment indicates that the specified procedures cause unrepresentative emission measurements for your engines. Note that you need not notify us of unrepresentative aspects of the test procedure if measured emissions are equivalent to in-use emissions. This provision does not obligate you to pursue new information regarding the different ways your engine might operate in use, nor does it obligate you to collect any other in-use information to verify whether or not these test procedures are representative of your engine's in-use operation. If you notify us of unrepresentative procedures under this paragraph (c)(1), we will cooperate

with you to establish whether and how the procedures should be appropriately changed to result in more representative measurements. While the provisions of this paragraph (c)(1) allow us to be responsive to issues as they arise, we would generally work toward making these testing changes generally applicable through rulemaking. We will allow reasonable lead time for compliance with any resulting change in procedures. We will consider the following factors in determining the importance of pursuing changes to the procedures:

(i) Whether supplemental emission standards or other requirements in the standard-setting part address the type of operation of concern or otherwise prevent inappropriate design strategies.

(ii) Whether the unrepresentative aspect of the procedures affect your ability to show compliance with the applicable emission standards.

(iii) The extent to which the established procedures require the use of emission-control technologies or strategies that are expected to ensure a comparable degree of emission control under the in-use operation that differs from the specified procedures.

(2) You may request to use special procedures if your engine cannot be tested using the specified procedures. For example, this may apply if your engine cannot operate on the specified duty cycle. In this case, tell us in writing why you cannot satisfactorily test your engine using this part's procedures and ask to use a different approach. We will approve your request if we determine that it would produce emission measurements that represent in-use operation and we determine that it can be used to show compliance with the requirements of the standard-setting part.

* * * * *

(6) During the 12 months following the effective date of any change in the provisions of this part 1065, you may use data collected using procedures specified in the previously applicable version of this part 1065. This paragraph (c)(6) does not restrict the use of carryover certification data otherwise allowed by the standard-setting part.

(7) You may request to use alternate procedures, or procedures that are more accurate or more precise than the allowed procedures. The following provisions apply to requests for alternate procedures:

* * * * *

■ 50. Section 1065.12 is amended by revising paragraphs (a) and (d)(1) to read as follows:

**§ 1065.12 Approval of alternate procedures.**

(a) To get approval for an alternate procedure under § 1065.10(c), send the Designated Compliance Officer an initial written request describing the alternate procedure and why you believe it is equivalent to the specified procedure. Anyone may request alternate procedure approval. This means that an individual engine manufacturer may request to use an alternate procedure. This also means that an instrument manufacturer may request to have an instrument, equipment, or procedure approved as an alternate procedure to those specified in this part. We may approve your request based on this information alone, or, as described in this section, we may ask you to submit to us in writing supplemental information showing that your alternate procedure is consistently and reliably at least as accurate and repeatable as the specified procedure.

* * * * *

(d) * * *

(1) *Theoretical basis.* Give a brief technical description explaining why you believe the proposed alternate procedure should result in emission measurements equivalent to those using the specified procedure. You may include equations, figures, and references. You should consider the full range of parameters that may affect equivalence. For example, for a request to use a different $NO_X$ measurement procedure, you should theoretically relate the alternate detection principle to the specified detection principle over the expected concentration ranges for NO, $NO_2$, and interference gases. For a request to use a different PM measurement procedure, you should explain the principles by which the alternate procedure quantifies particulate mass similarly to the specified procedures.

* * * * *

■ 51. Section 1065.15 is amended by revising paragraphs (c)(1) and (e) and adding paragraph (f) to read as follows:

**§ 1065.15 Overview of procedures for laboratory and field testing.**

* * * * *

(c) * * *

(1) Engine operation. Engine operation is specified over a test interval. A test interval is the time over which an engine's total mass of emissions and its total work are determined. Refer to the standard-setting part for the specific test intervals that apply to each engine. Testing may involve measuring emissions and work in a laboratory-type environment or in the field, as described in paragraph (f) of this section.

* * * * *

(e) The following figure illustrates the allowed measurement configurations described in this part 1065:

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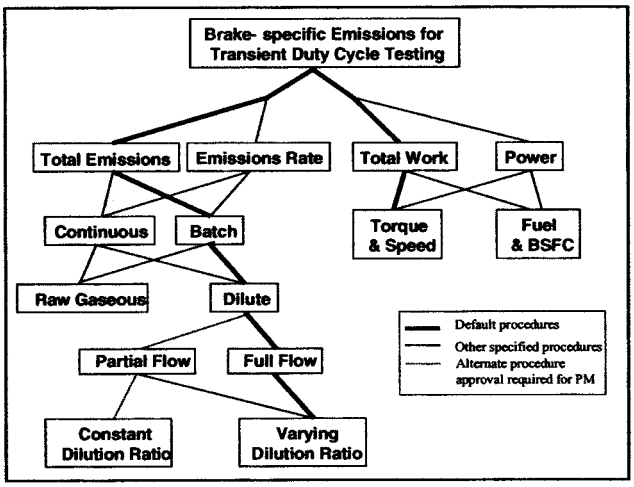
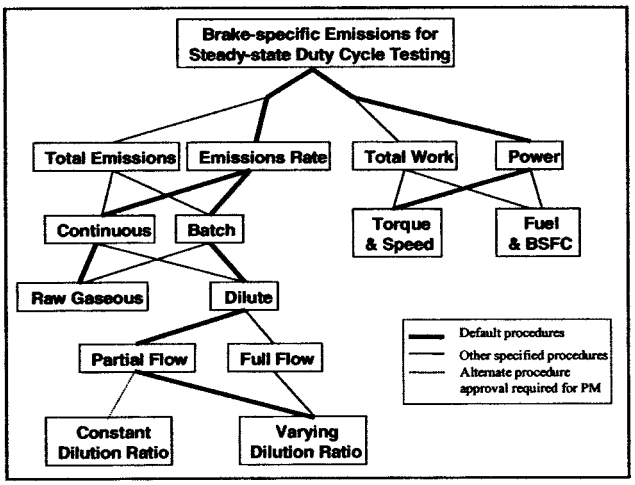
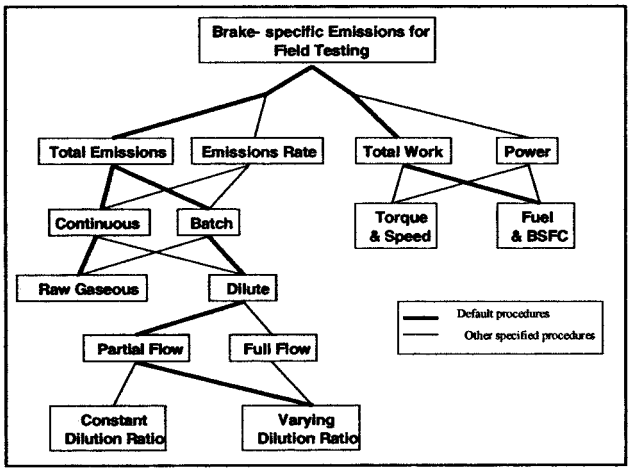
Figure 1 of §1065.15—Default test procedures and other specified procedures.

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(f) This part 1065 describes how to test engines in a laboratory-type environment or in the field.

(1) This affects test intervals and duty cycles as follows:

(i) For laboratory testing, you generally determine brake-specific emissions for duty-cycle testing by using an engine dynamometer in a laboratory or other environment. This typically consists of one or more test intervals, each defined by a duty cycle, which is a sequence of modes, speeds, and/or torques (or powers) that an engine must follow. If the standard-setting part allows it, you may also simulate field testing with an engine dynamometer in a laboratory or other environment.

(ii) Field testing consists of normal in-use engine operation while an engine is installed in a vehicle, equipment, or vessel rather than following a specific engine duty cycle. The standard-setting part specifies how test intervals are defined for field testing.

(2) The type of testing may also affect what test equipment may be used. You may use ''lab-grade'' test equipment for any testing. The term ''lab-grade'' refers to equipment that fully conforms to the applicable specifications of this part. For some testing you may alternatively use ''field-grade'' equipment. The term ''field-grade'' refers to equipment that fully conforms to the applicable specifications of subpart J of this part, but does not fully conform to other specifications of this part. You may use ''field-grade'' equipment for field testing. We also specify in this part and in the standard-setting parts certain cases in which you may use ''field-grade'' equipment for testing in a laboratory-type environment. (**Note:** Although ''field-grade'' equipment is generally more portable than ''lab-grade'' test equipment, portability is not relevant to whether equipment is considered to be ''field-grade'' or ''lab-grade''.)

■ 52. Section 1065.20 is amended by revising paragraphs (a)(2), (b)(2), (f), and (g) to read as follows:

### § 1065.20 Units of measure and overview of calculations.

(a) * * *

(2) We designate brake-specific emissions in grams per kilowatt-hour (g/(kW·hr)), rather than the SI unit of grams per megajoule (g/MJ). In addition, we use the symbol hr to identify hour, rather than the SI convention of using h. This is based on the fact that engines are generally subject to emission standards expressed in g/kW·hr. If we specify engine standards in grams per horsepower·hour (g/(hp·hr)) in the standard-setting part, convert units as specified in paragraph (d) of this section.

* * * * *

(b) * * *

(2) For all substances, $cm^3/m^3$, formerly ppm (volume).

* * * * *

(f) Interpretation of ranges. Interpret a range as a tolerance unless we explicitly identify it as an accuracy, repeatability, linearity, or noise specification. See § 1065.1001 for the definition of tolerance. In this part, we specify two types of ranges:

(1) Whenever we specify a range by a single value and corresponding limit values above and below that value, target any associated control point to that single value. Examples of this type of range include ''± 10% of maximum pressure'', or ''(30 ± 10) kPa''.

(2) Whenever we specify a range by the interval between two values, you may target any associated control point to any value within that range. An example of this type of range is ''(40 to 50) kPa''.

(g) Scaling of specifications with respect to an applicable standard. Because this part 1065 is applicable to a wide range of engines and emission standards, some of the specifications in this part are scaled with respect to an engine's applicable standard or maximum power. This ensures that the specification will be adequate to determine compliance, but not overly burdensome by requiring unnecessarily high-precision equipment. Many of these specifications are given with respect to a ''flow-weighted mean'' that is expected at the standard or during testing. Flow-weighted mean is the mean of a quantity after it is weighted proportional to a corresponding flow rate. For example, if a gas concentration is measured continuously from the raw exhaust of an engine, its flow-weighted mean concentration is the sum of the products of each recorded concentration times its respective exhaust flow rate, divided by the sum of the recorded flow rates. As another example, the bag concentration from a CVS system is the same as the flow-weighted mean concentration, because the CVS system itself flow-weights the bag concentration. Refer to § 1065.602 for information needed to estimate and calculate flow-weighted means. Wherever a specification is scaled to a value based upon an applicable standard, interpret the standard to be the family emission limit if the engine is certified under an emission credit program in the standard-setting part.

## Subpart B—[Amended]

■ 53. Section 1065.101 is amended by revising paragraph (a) and adding paragraph (e) before the figures to read as follows:

### § 1065.101 Overview.

(a) This subpart specifies equipment, other than measurement instruments, related to emission testing. The provisions of this subpart apply for all engine dynamometer testing where engine speeds and loads are controlled to follow a prescribed duty cycle. See subpart J of this part to determine which of the provisions of this subpart apply for field testing. This equipment includes three broad categories-dynamometers, engine fluid systems (such as fuel and intake-air systems), and emission-sampling hardware.

* * * * *

(e) Dynamometer testing involves engine operation over speeds and loads that are controlled to a prescribed duty cycle. Field testing involves measuring emissions over normal in-use operation of a vehicle or piece of equipment. Field testing does not involve operating an engine over a prescribed duty cycle.

* * * * *

■ 54. Section 1065.110 is amended by revising paragraphs (a) introductory text and (e) and adding paragraphs (a)(1)(iv) and (f) to read as follows:

### § 1065.110 Work inputs and outputs, accessory work, and operator demand.

(a) *Work.* Use good engineering judgment to simulate all engine work inputs and outputs as they typically would operate in use. Account for work inputs and outputs during an emission test by measuring them; or, if they are small, you may show by engineering analysis that disregarding them does not affect your ability to determine the net work output by more than ± 0.5% of the net expected work output over the test interval. Use equipment to simulate the specific types of work, as follows:

(1) * * *

(iv) You may use any device that is already installed on a vehicle, equipment, or vessel to absorb work from the engine's output shaft(s). Examples of these types of devices include a vessel's propeller and a locomotive's generator.

* * * * *

(e) *Operator demand for shaft work.* Operator demand is defined in § 1065.1001. Command the operator demand and the dynamometer(s) to follow a prescribed duty cycle with set points for engine speed and torque as specified in § 1065.512. Refer to the

standard-setting part to determine the specifications for your duty cycle(s). Use a mechanical or electronic input to control operator demand such that the engine is able to meet the validation criteria in § 1065.514 over each applicable duty cycle. Record feedback values for engine speed and torque as specified in § 1065.512. Using good engineering judgment, you may improve control of operator demand by altering on-engine speed and torque controls. However, if these changes result in unrepresentative testing, you must notify us and recommend other test procedures under § 1065.10(c)(1).

(f) *Other engine inputs.* If your electronic control module requires specific input signals that are not available during dynamometer testing, such as vehicle speed or transmission signals, you may simulate the signals using good engineering judgment. Keep records that describe what signals you simulate and explain why these signals are necessary for representative testing.

■ 55. Section 1065.120 is amended by revising paragraph (a) to read as follows:

**§ 1065.120 Fuel properties and fuel temperature and pressure.**

(a) Use fuels as specified in the standard-setting part, or as specified in subpart H of this part if fuels are not specified in the standard-setting part.

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■ 56. Section 1065.122 is amended by revising paragraphs (a) introductory text, (a)(1), and (c) to read as follows:

**§ 1065.122 Engine cooling and lubrication.**

(a) *Engine cooling.* Cool the engine during testing so its intake-air, oil, coolant, block, and head temperatures are within their expected ranges for normal operation. You may use auxiliary coolers and fans.

(1) For air-cooled engines only, if you use auxiliary fans you must account for work input to the fan(s) according to § 1065.110.

* * * * *

(c) *Lubricating oil.* Use lubricating oils specified in § 1065.740. For two-stroke engines that involve a specified mixture of fuel and lubricating oil, mix the lubricating oil with the fuel according to the manufacturer's specifications.

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■ 57. Section 1065.125 is amended by revising paragraphs (c) and (d) and adding paragraph (e) to read as follows:

**§ 1065.125 Engine intake air.**

* * * * *

(c) Unless stated otherwise in the standard-setting part, maintain the temperature of intake air to (25 ± 5) °C, as measured upstream of any engine component.

(d) Use an intake-air restriction that represents production engines. Make sure the intake-air restriction is between the manufacturer's specified maximum for a clean filter and the manufacturer's specified maximum allowed. Measure the static differential pressure of the restriction at the location and at the speed and torque set points specified by the manufacturer. If the manufacturer does not specify a location, measure this pressure upstream of any turbocharger or exhaust gas recirculation system connection to the intake air system. If the manufacturer does not specify speed and torque points, measure this pressure while the engine outputs maximum power. As the manufacturer, you are liable for emission compliance for all values up to the maximum restriction you specify for a particular engine.

(e) This paragraph (e) includes provisions for simulating charge-air cooling in the laboratory. This approach is described in paragraph (e)(1) of this section. Limits on using this approach are described in paragraphs (e)(2) and (3) of this section.

(1) Use a charge-air cooling system with a total intake-air capacity that represents production engines' in-use installation. Design any laboratory charge-air cooling system to minimize accumulation of condensate. Drain any accumulated condensate and completely close all drains before emission testing. Keep the drains closed during the emission test. Maintain coolant conditions as follows:

(i) Maintain a coolant temperature of at least 20 °C at the inlet to the charge-air cooler throughout testing.

(ii) At the engine conditions specified by the manufacturer, set the coolant flow rate to achieve an air temperature within ± 5 °C of the value specified by the manufacturer after the charge-air cooler's outlet. Measure the air-outlet temperature at the location specified by the manufacturer. Use this coolant flow rate set point throughout testing. If the engine manufacturer does not specify engine conditions or the corresponding charge-air cooler air outlet temperature, set the coolant flow rate at maximum engine power to achieve a charge-air cooler air outlet temperature that represents in-use operation.

(iii) If the engine manufacturer specifies pressure-drop limits across the charge-air cooling system, ensure that the pressure drop across the charge-air cooling system at engine conditions specified by the manufacturer is within the manufacturer's specified limit(s). Measure the pressure drop at the manufacturer's specified locations.

(2) The objective of this section is to produce emission results that are representative of in-use operation. If good engineering judgment indicates that the specifications in this section would result in unrepresentative testing (such as overcooling of the intake air), you may use more sophisticated setpoints and controls of charge-air pressure drop, coolant temperature, and flowrate to achieve more representative results.

(3) This approach does not apply for field testing. You may not correct measured emission levels from field testing to account for any differences caused by the simulated cooling in the laboratory.

■ 58. Section 1065.130 is revised to read as follows:

**§ 1065.130 Engine exhaust.**

(a) *General.* Use the exhaust system installed with the engine or one that represents a typical in-use configuration. This includes any applicable aftertreatment devices.

(b) *Aftertreatment configuration.* If you do not use the exhaust system installed with the engine, configure any aftertreatment devices as follows:

(1) Position any aftertreatment device so its distance from the nearest exhaust manifold flange or turbocharger outlet is within the range specified by the engine manufacturer in the application for certification. If this distance is not specified, position aftertreatment devices to represent typical in-use vehicle configurations.

(2) You may use exhaust tubing that is not from the in-use exhaust system upstream of any aftertreatment device that is of diameter(s) typical of in-use configurations. If you use exhaust tubing that is not from the in-use exhaust system upstream of any aftertreatment device, position each aftertreatment device according to paragraph (b)(1) of this section.

(c) *Sampling system connections.* Connect an engine's exhaust system to any raw sampling location or dilution stage, as follows:

(1) Minimize laboratory exhaust tubing lengths and use a total length of laboratory tubing of no more than 10 m or 50 outside diameters, whichever is greater. The start of laboratory exhaust tubing should be specified as the exit of the exhaust manifold, turbocharger outlet, last aftertreatment device, or the in-use exhaust system, whichever is furthest downstream. The end of laboratory exhaust tubing should be specified as the sample point, or first point of dilution. If laboratory exhaust tubing consists of several different outside tubing diameters, count the

number of diameters of length of each individual diameter, then sum all the diameters to determine the total length of exhaust tubing in diameters. Use the mean outside diameter of any converging or diverging sections of tubing. Use outside hydraulic diameters of any noncircular sections. For multiple stack configurations where all the exhaust stacks are combined, the start of the laboratory exhaust tubing may be taken at the last joint of where all the stacks are combined.

(2) You may install short sections of flexible laboratory exhaust tubing at any location in the engine or laboratory exhaust systems. You may use up to a combined total of 2 m or 10 outside diameters of flexible exhaust tubing.

(3) Insulate any laboratory exhaust tubing downstream of the first 25 outside diameters of length.

(4) Use laboratory exhaust tubing materials that are smooth-walled, electrically conductive, and not reactive with exhaust constituents. Stainless steel is an acceptable material.

(5) We recommend that you use laboratory exhaust tubing that has either a wall thickness of less than 2 mm or is air gap-insulated to minimize temperature differences between the wall and the exhaust.

(6) We recommend that you connect multiple exhaust stacks from a single engine into one stack upstream of any emission sampling. To ensure mixing of the multiple exhaust streams before emission sampling, you may configure the exhaust system with turbulence generators, such as orifice plates or fins, to achieve good mixing. We recommend a minimum Reynolds number, *Re*#, of 4000 for the combined exhaust stream, where *Re*# is based on the inside diameter of the single stack. *Re*# is defined in § 1065.640.

(d) *In-line instruments.* You may insert instruments into the laboratory exhaust tubing, such as an in-line smoke meter. If you do this, you may leave a length of up to 5 outside diameters of laboratory exhaust tubing uninsulated on each side of each instrument, but you must leave a length of no more than 25 outside diameters of laboratory exhaust tubing uninsulated in total, including any lengths adjacent to in-line instruments.

(e) *Leaks.* Minimize leaks sufficiently to ensure your ability to demonstrate compliance with the applicable standards. We recommend performing a chemical balance of fuel, intake air, and exhaust according to § 1065.655 to verify exhaust system integrity.

(f) *Grounding.* Electrically ground the entire exhaust system.

(g) *Forced cooldown.* You may install a forced cooldown system for an exhaust aftertreatment device according to § 1065.530(a)(1)(i).

(h) *Exhaust restriction.* As the manufacturer, you are liable for emission compliance for all values up to the maximum restriction(s) you specify for a particular engine. Measure and set exhaust restriction(s) at the location(s) and at the engine speed and torque values specified by the manufacturer. Also, for variable-restriction aftertreatment devices, measure and set exhaust restriction(s) at the aftertreatment condition (degreening/aging and regeneration/loading level) specified by the manufacturer. If the manufacturer does not specify a location, measure this pressure downstream of any turbocharger. If the manufacturer does not specify speed and torque points, measure pressure while the engine produces maximum power. Use an exhaust-restriction setpoint that represents a typical in-use value, if available. If a typical in-use value for exhaust restriction is not available, set the exhaust restriction at (80 to 100)% of the maximum exhaust restriction specified by the manufacturer, or if the maximum is 5 kPa or less, the set point must be no less than 1.0 kPa from the maximum. For example, if the maximum back pressure is 4.5 kPa, do not use an exhaust restriction set point that is less than 3.5 kPa.

(i) *Open crankcase emissions.* If the standard-setting part requires measuring open crankcase emissions, you may either measure open crankcase emissions separately using a method that we approve in advance, or route open crankcase emissions directly into the exhaust system for emission measurement. If the engine is not already configured to route open crankcase emissions for emission measurement, route open crankcase emissions as follows:

(1) Use laboratory tubing materials that are smooth-walled, electrically conductive, and not reactive with crankcase emissions. Stainless steel is an acceptable material. Minimize tube lengths. We also recommend using heated or thin-walled or air gap-insulated tubing to minimize temperature differences between the wall and the crankcase emission constituents.

(2) Minimize the number of bends in the laboratory crankcase tubing and maximize the radius of any unavoidable bend.

(3) Use laboratory crankcase exhaust tubing that meets the engine manufacturer's specifications for crankcase back pressure.

(4) Connect the crankcase exhaust tubing into the raw exhaust downstream of any aftertreatment system, downstream of any installed exhaust restriction, and sufficiently upstream of any sample probes to ensure complete mixing with the engine's exhaust before sampling. Extend the crankcase exhaust tube into the free stream of exhaust to avoid boundary-layer effects and to promote mixing. You may orient the crankcase exhaust tube's outlet in any direction relative to the raw exhaust flow.

■ 59. Section 1065.140 is revised to read as follows:

**§ 1065.140 Dilution for gaseous and PM constituents.**

(a) *General.* You may dilute exhaust with ambient air, synthetic air, or nitrogen. For gaseous emission measurement the diluent must be at least 15°C. Note that the composition of the diluent affects some gaseous emission measurement instruments' response to emissions. We recommend diluting exhaust at a location as close as possible to the location where ambient air dilution would occur in use.

(b) *Dilution-air conditions and background concentrations.* Before a diluent is mixed with exhaust, you may precondition it by increasing or decreasing its temperature or humidity. You may also remove constituents to reduce their background concentrations. The following provisions apply to removing constituents or accounting for background concentrations:

(1) You may measure constituent concentrations in the diluent and compensate for background effects on test results. See § 1065.650 for calculations that compensate for background concentrations.

(2) Either measure these background concentrations the same way you measure diluted exhaust constituents, or measure them in a way that does not affect your ability to demonstrate compliance with the applicable standards. For example, you may use the following simplifications for background sampling:

(i) You may disregard any proportional sampling requirements.

(ii) You may use unheated gaseous sampling systems.

(iii) You may use unheated PM sampling systems.

(iv) You may use continuous sampling if you use batch sampling for diluted emissions.

(v) You may use batch sampling if you use continuous sampling for diluted emissions.

(3) For removing background PM, we recommend that you filter all dilution air, including primary full-flow dilution air, with high-efficiency particulate air (HEPA) filters that have an initial minimum collection efficiency specification of 99.97% (see § 1065.1001 for procedures related to HEPA-filtration efficiencies). Ensure that HEPA filters are installed properly so that background PM does not leak past the HEPA filters. If you choose to correct for background PM without using HEPA filtration, demonstrate that the background PM in the dilution air contributes less than 50% to the net PM collected on the sample filter. You may correct net PM without restriction if you use HEPA filtration.

(c) *Full-flow dilution; constant-volume sampling (CVS).* You may dilute the full flow of raw exhaust in a dilution tunnel that maintains a nominally constant volume flow rate, molar flow rate or mass flow rate of diluted exhaust, as follows:

(1) *Construction.* Use a tunnel with inside surfaces of 300 series stainless steel. Electrically ground the entire dilution tunnel. We recommend a thin-walled and insulated dilution tunnel to minimize temperature differences between the wall and the exhaust gases.

(2) *Pressure control.* Maintain static pressure at the location where raw exhaust is introduced into the tunnel within ± 1.2 kPa of atmospheric pressure. You may use a booster blower to control this pressure. If you test an engine using more careful pressure control and you show by engineering analysis or by test data that you require this level of control to demonstrate compliance at the applicable standards, we will maintain the same level of static pressure control when we test that engine.

(3) *Mixing.* Introduce raw exhaust into the tunnel by directing it downstream along the centerline of the tunnel. You may introduce a fraction of dilution air radially from the tunnel's inner surface to minimize exhaust interaction with the tunnel walls. You may configure the system with turbulence generators such as orifice plates or fins to achieve good mixing. We recommend a minimum Reynolds number, *Re#,* of 4000 for the diluted exhaust stream, where Re# is based on the inside diameter of the dilution tunnel. *Re#* is defined in § 1065.640.

(4) *Flow measurement preconditioning.* You may condition the diluted exhaust before measuring its flow rate, as long as this conditioning takes place downstream of any heated HC or PM sample probes, as follows:

(i) You may use flow straighteners, pulsation dampeners, or both of these.

(ii) You may use a filter.

(iii) You may use a heat exchanger to control the temperature upstream of any flow meter, but you must take steps to prevent aqueous condensation as described in paragraph (c)(6) of this section.

(5) *Flow measurement.* Section 1065.240 describes measurement instruments for diluted exhaust flow.

(6) *Aqueous condensation.* To ensure that you measure a flow that corresponds to a measured concentration, you may either prevent aqueous condensation between the sample probe location and the flow meter inlet in the dilution tunnel or you may allow aqueous condensation to occur and then measure humidity at the flow meter inlet. You may heat or insulate the dilution tunnel walls, as well as the bulk stream tubing downstream of the tunnel to prevent aqueous condensation. Calculations in § 1065.645 and § 1065.650 account for either method of addressing humidity in the diluted exhaust. Note that preventing aqueous condensation involves more than keeping pure water in a vapor phase (see § 1065.1001).

(7) *Flow compensation.* Maintain nominally constant molar, volumetric or mass flow of diluted exhaust. You may maintain nominally constant flow by either maintaining the temperature and pressure at the flow meter or by directly controlling the flow of diluted exhaust. You may also directly control the flow of proportional samplers to maintain proportional sampling. For an individual test, validate proportional sampling as described in § 1065.545.

(d) *Partial-flow dilution (PFD).* Except as specified in this paragraph (d), you may dilute a partial flow of raw or previously diluted exhaust before measuring emissions. § 1065.240 describes PFD-related flow measurement instruments. PFD may consist of constant or varying dilution ratios as described in paragraphs (d)(2) and (3) of this section. An example of a constant dilution ratio PFD is a ''secondary dilution PM'' measurement system.

(1) Applicability. (i) You may not use PFD if the standard-setting part prohibits it.

(ii) You may use PFD to extract a proportional raw exhaust sample for any batch or continuous PM emission sampling over any transient duty cycle only if we have explicitly approved it according to § 1065.10 as an alternative procedure to the specified procedure for full-flow CVS.

(iii) You may use PFD to extract a proportional raw exhaust sample for any batch or continuous gaseous emission sampling.

(iv) You may use PFD to extract a proportional raw exhaust sample for any batch or continuous PM emission sampling over any steady-state duty cycle or its ramped-modal cycle (RMC) equivalent.

(v) You may use PFD to extract a proportional raw exhaust sample for any batch or continuous field-testing.

(vi) You may use PFD to extract a proportional diluted exhaust sample from a CVS for any batch or continuous emission sampling.

(vii) You may use PFD to extract a constant raw or diluted exhaust sample for any continuous emission sampling.

(2) Constant dilution-ratio PFD. Do one of the following for constant dilution-ratio PFD:

(i) Dilute an already proportional flow. For example, you may do this as a way of performing secondary dilution from a CVS tunnel to achieve overall dilution ratio for PM sampling.

(ii) Continuously measure constituent concentrations. For example, you might dilute to precondition a sample of raw exhaust to control its temperature, humidity, or constituent concentrations upstream of continuous analyzers. In this case, you must take into account the dilution ratio before multiplying the continuous concentration by the sampled exhaust flow rate.

(iii) Extract a proportional sample from a separate constant dilution ratio PFD system. For example, you might use a variable-flow pump to proportionally fill a gaseous storage medium such as a bag from a PFD system. In this case, the proportional sampling must meet the same specifications as varying dilution ratio PFD in paragraph (d)(3) of this section.

(iv) For each mode of a discrete-mode test (such as a locomotive notch setting or a specific setting for speed and torque), use a constant dilution ratio for any PM sampling. You must change the overall PM sampling system dilution ratio between modes so that the dilution ratio on the mode with the highest exhaust flow rate meets § 1065.140(e)(2) and the dilution ratios on all other modes is higher than this (minimum) dilution ratio by the ratio of the maximum exhaust flow rate to the exhaust flow rate of the corresponding other mode. This is the same dilution ratio requirement for RMC or field transient testing. You must account for this change in dilution ratio in your emission calculations.

(3) Varying dilution-ratio PFD. All the following provisions apply for varying dilution-ratio PFD:

(i) Use a control system with sensors and actuators that can maintain proportional sampling over intervals as short as 200 ms (i.e., 5 Hz control).

(ii) For control input, you may use any sensor output from one or more measurements; for example, intake-air flow, fuel flow, exhaust flow, engine speed, and intake manifold temperature and pressure.

(iii) Account for any emission transit time in the PFD system, as necessary.

(iv) You may use preprogrammed data if they have been determined for the specific test site, duty cycle, and test engine from which you dilute emissions.

(v) We recommend that you run practice cycles to meet the validation criteria in § 1065.545. Note that you must validate every emission test by meeting the validation criteria with the data from that specific test. Data from previously validated practice cycles or other tests may not be used to validate a different emission test.

(vi) You may not use a PFD system that requires preparatory tuning or calibration with a CVS or with the emission results from a CVS. Rather, you must be able to independently calibrate the PFD.

(e) *Dilution air temperature, dilution ratio, residence time, and temperature control of PM samples.* Dilute PM samples at least once upstream of transfer lines. You may dilute PM samples upstream of a transfer line using full-flow dilution, or partial-flow dilution immediately downstream of a PM probe. In the case of partial-flow dilution, you may have up to 26 cm of insulated length between the end of the probe and the dilution stage, but we recommend that the length be as short as practical. Configure dilution systems as follows:

(1) Set the diluent (i.e., dilution air) temperature to (25 ± 5) °C. Use good engineering judgment to select a location to measure this temperature. We recommend that you measure this temperature as close as practical upstream of the point where diluent mixes with raw exhaust.

(2) For any PM dilution system (i.e., CVS or PFD), dilute raw exhaust with diluent such that the minimum overall ratio of diluted exhaust to raw exhaust is within the range of (5:1–7:1) and is at least 2:1 for any primary dilution stage. Base this minimum value on the maximum engine exhaust flow rate for a given test interval. Either measure the maximum exhaust flow during a practice run of the test interval or estimate it based on good engineering judgment (for example, you might rely on manufacturer-published literature).

(3) Configure any PM dilution system to have an overall residence time of (1 to 5) s, as measured from the location of initial diluent introduction to the location where PM is collected on the sample media. Also configure the system to have a residence time of at least 0.5 s, as measured from the location of final diluent introduction to the location where PM is collected on the sample media. When determining residence times within sampling system volumes, use an assumed flow temperature of 25 °C and pressure of 101.325 kPa.

(4) Control sample temperature to a (47 ± 5) °C tolerance, as measured anywhere within 20 cm upstream or downstream of the PM storage media (such as a filter). Measure this temperature with a bare-wire junction thermocouple with wires that are (0.500 ± 0.025) mm diameter, or with another suitable instrument that has equivalent performance. The intent of these specifications is to minimize heat transfer to or from the emissions sample prior to the final stage of dilution. This is accomplished by initially cooling the sample through dilution.

■ 60. Section 1065.145 is revised to read as follows:

**§ 1065.145 Gaseous and PM probes, transfer lines, and sampling system components.**

(a) *Continuous and batch sampling.* Determine the total mass of each constituent with continuous or batch sampling, as described in § 1065.15(c)(2). Both types of sampling systems have probes, transfer lines, and other sampling system components that are described in this section.

(b) *Gaseous and PM sample probes.* A probe is the first fitting in a sampling system. It protrudes into a raw or diluted exhaust stream to extract a sample, such that its inside and outside surfaces are in contact with the exhaust. A sample is transported out of a probe into a transfer line, as described in paragraph (c) of this section. The following provisions apply to sample probes:

(1) *Probe design and construction.* Use sample probes with inside surfaces of 300 series stainless steel or, for raw exhaust sampling, use any nonreactive material capable of withstanding raw exhaust temperatures. Locate sample probes where constituents are mixed to their mean sample concentration. Take into account the mixing of any crankcase emissions that may be routed into the raw exhaust. Locate each probe to minimize interference with the flow to other probes. We recommend that all probes remain free from influences of boundary layers, wakes, and eddies—especially near the outlet of a raw-exhaust tailpipe where unintended dilution might occur. Make sure that purging or back-flushing of a probe does not influence another probe during testing. You may use a single probe to extract a sample of more than one constituent as long as the probe meets all the specifications for each constituent.

(2) *Probe installation on multi-stack engines.* We recommend combining multiple exhaust streams from multi-stack engines before emission sampling as described in § 1065.130(c)(6). If this is impractical, you may install symmetrical probes and transfer lines in each stack. In this case, each stack must be installed such that similar exhaust velocities are expected at each probe location. Use identical probe and transfer line diameters, lengths, and bends for each stack. Minimize the individual transfer line lengths, and manifold the individual transfer lines into a single transfer line to route the combined exhaust sample to analyzers and/or batch samplers. For PM sampling the manifold design must merge the individual sample streams with a maximum angle of 12.5° relative to the single sample stream's flow. Note that the manifold must meet the same specifications as the transfer line according to paragraph (c) of this section. If you use this probe configuration and you determine your exhaust flow rates with a chemical balance of exhaust gas concentrations and either intake air flow or fuel flow, then show by prior testing that the concentration of $O_2$ in each stack remains within 5% of the mean $O_2$ concentration throughout the entire duty cycle.

(3) *Gaseous sample probes.* Use either single-port or multi-port probes for sampling gaseous emissions. You may orient these probes in any direction relative to the raw or diluted exhaust flow. For some probes, you must control sample temperatures, as follows:

(i) For probes that extract $NO_X$ from diluted exhaust, control the probe's wall temperature to prevent aqueous condensation.

(ii) For probes that extract hydrocarbons for THC or NMHC analysis from the diluted exhaust of compression-ignition engines, 2-stroke spark-ignition engines, or 4-stroke spark-ignition engines below 19 kW, we recommend heating the probe to minimize hydrocarbon contamination consistent with good engineering

judgment. If you routinely fail the contamination check in the 1065.520 pretest check, we recommend heating the probe section to approximately 190 °C to minimize contamination.

(4) *PM sample probes.* Use PM probes with a single opening at the end. Orient PM probes to face directly upstream. If you shield a PM probe's opening with a PM pre-classifier such as a hat, you may not use the preclassifier we specify in paragraph (e)(1) of this section. We recommend sizing the inside diameter of PM probes to approximate isokinetic sampling at the expected mean flow rate.

(c) *Transfer lines.* You may use transfer lines to transport an extracted sample from a probe to an analyzer, storage medium, or dilution system, noting certain restrictions for PM sampling in § 1065.140(e). Minimize the length of all transfer lines by locating analyzers, storage media, and dilution systems as close to probes as practical. We recommend that you minimize the number of bends in transfer lines and that you maximize the radius of any unavoidable bend. Avoid using 90° elbows, tees, and cross-fittings in transfer lines. Where such connections and fittings are necessary, take steps, using good engineering judgment, to ensure that you meet the temperature tolerances in this paragraph (c). This may involve measuring temperature at various locations within transfer lines and fittings. You may use a single transfer line to transport a sample of more than one constituent, as long as the transfer line meets all the specifications for each constituent. The following construction and temperature tolerances apply to transfer lines:

(1) *Gaseous samples.* Use transfer lines with inside surfaces of 300 series stainless steel, PTFE, Viton™, or any other material that you demonstrate has better properties for emission sampling. For raw exhaust sampling, use a non-reactive material capable of withstanding raw exhaust temperatures. You may use in-line filters if they do not react with exhaust constituents and if the filter and its housing meet the same temperature requirements as the transfer lines, as follows:

(i) For $NO_X$ transfer lines upstream of either an $NO_2$-to-NO converter that meets the specifications of § 1065.378 or a chiller that meets the specifications of § 1065.376, maintain a sample temperature that prevents aqueous condensation.

(ii) For THC transfer lines for testing compression-ignition engines, 2-stroke spark-ignition engines, or 4-stroke spark-ignition engines below 19 kW, maintain a wall temperature tolerance throughout the entire line of (191 ±11) °C. If you sample from raw exhaust, you may connect an unheated, insulated transfer line directly to a probe. Design the length and insulation of the transfer line to cool the highest expected raw exhaust temperature to no lower than 191 °C, as measured at the transfer line's outlet. For dilute sampling, you may use a transition zone between the probe and transfer line of up to 92 cm to allow your wall temperature to transition to (191 ±11) °C.

(2) *PM samples.* We recommend heated transfer lines or a heated enclosure to minimize temperature differences between transfer lines and exhaust constituents. Use transfer lines that are inert with respect to PM and are electrically conductive on the inside surfaces. We recommend using PM transfer lines made of 300 series stainless steel. Electrically ground the inside surface of PM transfer lines.

(d) *Optional sample-conditioning components for gaseous sampling.* You may use the following sample-conditioning components to prepare gaseous samples for analysis, as long as you do not install or use them in a way that adversely affects your ability to show that your engines comply with all applicable gaseous emission standards.

(1) *$NO_2$-to-NO converter.* You may use an $NO_2$-to-NO converter that meets the efficiency-performance check specified in § 1065.378 at any point upstream of a $NO_X$ analyzer, sample bag, or other storage medium.

(2) *Sample dryer.* You may use either type of sample dryer described in this paragraph (d)(2) to decrease the effects of water on gaseous emission measurements. You may not use a chemical dryer, or use dryers upstream of PM sample filters.

(i) *Osmotic-membrane.* You may use an osmotic-membrane dryer upstream of any gaseous analyzer or storage medium, as long as it meets the temperature specifications in paragraph (c)(1) of this section. Because osmotic-membrane dryers may deteriorate after prolonged exposure to certain exhaust constituents, consult with the membrane manufacturer regarding your application before incorporating an osmotic-membrane dryer. Monitor the dewpoint, $T_{dew}$, and absolute pressure, $p_{total}$, downstream of an osmotic-membrane dryer. You may use continuously recorded values of $T_{dew}$ and $p_{total}$ in the amount of water calculations specified in § 1065.645. If you do not continuously record these values, you may use their peak values observed during a test or their alarm setpoints as constant values in the calculations specified in § 1065.645. You may also use a nominal $p_{total}$, which you may estimate as the dryer's lowest absolute pressure expected during testing.

(ii) *Thermal chiller.* You may use a thermal chiller upstream of some gas analyzers and storage media. You may not use a thermal chiller upstream of a THC measurement system for compression-ignition engines, 2-stroke spark-ignition engines, or 4-stroke spark-ignition engines below 19 kW. If you use a thermal chiller upstream of an $NO_2$-to-NO converter or in a sampling system without an $NO_2$-to-NO converter, the chiller must meet the $NO_2$ loss-performance check specified in § 1065.376. Monitor the dewpoint, $T_{dew}$, and absolute pressure, $p_{total}$, downstream of a thermal chiller. You may use continuously recorded values of $T_{dew}$ and $p_{total}$ in the emission calculations specified in § 1065.650. If you do not continuously record these values, you may use the maximum temperature and minimum pressure values observed during a test or the high alarm temperature setpoint and the low alarm pressure setpoint as constant values in the amount of water calculations specified in § 1065.645. You may also use a nominal $p_{total}$, which you may estimate as the dryer's lowest absolute pressure expected during testing. If it is valid to assume the degree of saturation in the thermal chiller, you may calculate $T_{dew}$ based on the known chiller performance and continuous monitoring of chiller temperature, $T_{chiller}$. If you do not continuously record values of $T_{chiller}$, you may use its peak value observed during a test, or its alarm setpoint, as a constant value to determine a constant amount of water according to § 1065.645. If it is valid to assume that $T_{chiller}$ is equal to $T_{dew}$, you may use $T_{chiller}$ in lieu of $T_{dew}$ according to § 1065.645. If it is valid to assume a constant temperature offset between $T_{chiller}$ and $T_{dew}$, due to a known and fixed amount of sample reheat between the chiller outlet and the temperature measurement location, you may factor in this assumed temperature offset value into emission calculations. If we ask for it, you must show by engineering analysis or by data the validity of any assumptions allowed by this paragraph (d)(2)(ii).

(3) *Sample pumps.* You may use sample pumps upstream of an analyzer or storage medium for any gas. Use sample pumps with inside surfaces of 300 series stainless steel, PTFE, or any other material that you demonstrate has better properties for emission sampling. For some sample pumps, you must control temperatures, as follows:

(i) If you use a $NO_X$ sample pump upstream of either an $NO_2$-to-NO converter that meets § 1065.378 or a chiller that meets § 1065.376, it must be heated to prevent aqueous condensation.

(ii) For testing compression-ignition engines, 2-stroke spark-ignition engines, or 4-stroke spark-ignition engines below 19 kW, if you use a THC sample pump upstream of a THC analyzer or storage medium, its inner surfaces must be heated to a tolerance of (191 ±11) °C.

(4) *Ammonia Scrubber.* You may use ammonia scrubbers for any or all gaseous sampling systems to prevent interference with $NH_3$, poisoning of the $NO_2$-to-NO converter, and deposits in the sampling system or analyzers. Follow the ammonia scrubber manufacturer's recommendations or use good engineering judgment in applying ammonia scrubbers.

(e) *Optional sample-conditioning components for PM sampling.* You may use the following sample-conditioning components to prepare PM samples for analysis, as long as you do not install or use them in a way that adversely affects your ability to show that your engines comply with the applicable PM emission standards. You may condition PM samples to minimize positive and negative biases to PM results, as follows:

(1) *PM preclassifier.* You may use a PM preclassifier to remove large-diameter particles. The PM preclassifier may be either an inertial impactor or a cyclonic separator. It must be constructed of 300 series stainless steel. The preclassifier must be rated to remove at least 50% of PM at an aerodynamic diameter of 10 μm and no more than 1% of PM at an aerodynamic diameter of 1 μm over the range of flow rates for which you use it. Follow the preclassifier manufacturer's instructions for any periodic servicing that may be necessary to prevent a buildup of PM. Install the preclassifier in the dilution system downstream of the last dilution stage. Configure the preclassifier outlet with a means of bypassing any PM sample media so the preclassifier flow may be stabilized before starting a test. Locate PM sample media within 75 cm downstream of the preclassifier's exit. You may not use this preclassifier if you use a PM probe that already has a preclassifier. For example, if you use a hat-shaped preclassifier that is located immediately upstream of the probe in such a way that it forces the sample flow to change direction before entering the probe, you may not use any other preclassifier in your PM sampling system.

(2) *Other components.* You may request to use other PM conditioning components upstream of a PM preclassifier, such as components that condition humidity or remove gaseous-phase hydrocarbons from the diluted exhaust stream. You may use such components only if we approve them under § 1065.10.

■ 61. Section 1065.170 is amended by revising the introductory text and paragraphs (a) and (c)(1) to read as follows:

**§ 1065.170 Batch sampling for gaseous and PM constituents.**

Batch sampling involves collecting and storing emissions for later analysis. Examples of batch sampling include collecting and storing gaseous emissions in a bag or collecting and storing PM on a filter. You may use batch sampling to store emissions that have been diluted at least once in some way, such as with CVS, PFD, or BMD. You may use batch-sampling to store undiluted emissions.

(a) *Sampling methods.* If you extract from a constant-volume flow rate, sample at a constant-volume flow rate as follows:

(1) Validate proportional sampling after an emission test as described in § 1065.545. Use good engineering judgment to select storage media that will not significantly change measured emission levels (either up or down). For example, do not use sample bags for storing emissions if the bags are permeable with respect to emissions or if they offgas emissions to the extent that it affects your ability to demonstrate compliance with the applicable gaseous emission standards. As another example, do not use PM filters that irreversibly absorb or adsorb gases to the extent that it affects your ability to demonstrate compliance with the applicable PM emission standard.

(2) You must follow the requirements in § 1065.140(e)(2) related to PM dilution ratios. For each filter, if you expect the net PM mass on the filter to exceed 400 μg, assuming a 38 mm diameter filter stain area, you may take the following actions in sequence:

(i) First, reduce filter face velocity as needed to target a filter loading of 400 μg, down to 50 cm/s or less.

(ii) Then, for discrete-mode testing only, you may reduce sample time as needed to target a filter loading of 400 μg, but not below the minimum sample time specified in the standard-setting part.

(iii) Then, increase overall dilution ratio above the values specified in § 1065.140(e)(2) to target a filter loading of 400 μg.

* * * * *

(c) * * *

(1) If you use filter-based sampling media to extract and store PM for measurement, your procedure must meet the following specifications:

(i) If you expect that a filter's total surface concentration of PM will exceed 400 μg, assuming a 38 mm diameter filter stain area, for a given test interval, you may use filter media with a minimum initial collection efficiency of 98%; otherwise you must use a filter media with a minimum initial collection efficiency of 99.7%. Collection efficiency must be measured as described in ASTM D2986–95a (incorporated by reference in § 1065.1010), though you may rely on the sample-media manufacturer's measurements reflected in their product ratings to show that you meet this requirement.

(ii) The filter must be circular, with an overall diameter of 46.50 ± 0.6 mm and an exposed diameter of at least 38 mm. See the cassette specifications in paragraph (c)(1)(vii) of this section.

(iii) We highly recommend that you use a pure PTFE filter material that does not have any flow-through support bonded to the back and has an overall thickness of 40 ± 20 μm. An inert polymer ring may be bonded to the periphery of the filter material for support and for sealing between the filter cassette parts. We consider Polymethylpentene (PMP) and PTFE inert materials for a support ring, but other inert materials may be used. See the cassette specifications in paragraph (c)(1)(vii) of this section. We allow the use of PTFE-coated glass fiber filter material, as long as this filter media selection does not affect your ability to demonstrate compliance with the applicable standards, which we base on a pure PTFE filter material. Note that we will use pure PTFE filter material for compliance testing, and we may require you to use pure PTFE filter material for any compliance testing we require, such as for selective enforcement audits.

(iv) You may request to use other filter materials or sizes under the provisions of § 1065.10.

(v) To minimize turbulent deposition and to deposit PM evenly on a filter, use a 12.5° (from center) divergent cone angle to transition from the transfer-line inside diameter to the exposed diameter of the filter face. Use 300 series stainless steel for this transition.

(vi) Maintain a filter face velocity near 100 cm/s with less than 5% of the recorded flow values exceeding 100 cm/s, unless you expect either the net PM mass on the filter to exceed 400 μg, assuming a 38 mm diameter filter stain area. Measure face velocity as the volumetric flow rate of the sample at the

pressure upstream of the filter and temperature of the filter face as measured in § 1065.140(e), divided by the filter's exposed area. You may use the exhaust stack or CVS tunnel pressure for the upstream pressure if the pressure drop through the PM sampler up to the filter is less than 2 kPa.

(vii) Use a clean cassette designed to the specifications of Figure 1 of § 1065.170 and made of any of the following materials: Delrin™, 300 series stainless steel, polycarbonate, acrylonitrile-butadiene-styrene (ABS) resin, or conductive polypropylene. We recommend that you keep filter cassettes clean by periodically washing or wiping them with a compatible solvent applied using a lint-free cloth. Depending upon your cassette material, ethanol ($C_2H_5OH$) might be an acceptable solvent. Your cleaning frequency will depend on your engine's PM and HC emissions.

(viii) If you store filters in cassettes in an automatic PM sampler, cover or seal individual filter cassettes after sampling to prevent communication of semi-volatile matter from one filter to another.

* * * * *

■ 62. Section 1065.190 is amended by revising paragraphs (c), (e), (f) and (g) to read as follows:

**§ 1065.190 PM-stabilization and weighing environments for gravimetric analysis.**

* * * * *

(c) Verify the cleanliness of the PM-stabilization environment using reference filters, as described in § 1065.390(d).

* * * * *

(e) Verify the following ambient conditions using measurement instruments that meet the specifications in subpart C of this part:

(1) Continuously measure dewpoint and ambient temperature. Use these values to determine if the stabilization and weighing environments have remained within the tolerances specified in paragraph (d) of this section for at least 60 min. before weighing sample media (e.g., filters). We recommend that you use an interlock that automatically prevents the balance from reporting values if either of the environments have not been within the applicable tolerances for the past 60 min.

(2) Continuously measure atmospheric pressure within the weighing environment. An acceptable alternative is to use a barometer that measures atmospheric pressure outside the weighing environment, as long as you can ensure that atmospheric pressure at the balance is always within ±100 Pa of that outside environment during weighing operations. Record atmospheric pressure as you weigh filters, and use these pressure values to perform the buoyancy correction in § 1065.690.

(f) We recommend that you install a balance as follows:

(1) Install the balance on a vibration-isolation platform to isolate it from external noise and vibration.

(2) Shield the balance from convective airflow with a static-dissipating draft shield that is electrically grounded.

(3) Follow the balance manufacturer's specifications for all preventive maintenance.

(4) Operate the balance manually or as part of an automated weighing system.

(g) Minimize static electric charge in the balance environment, as follows:

(1) Electrically ground the balance.

(2) Use 300 series stainless steel tweezers if PM sample media (e.g., filters) must be handled manually.

(3) Ground tweezers with a grounding strap, or provide a grounding strap for the operator such that the grounding strap shares a common ground with the balance. Make sure grounding straps have an appropriate resistor to protect operators from accidental shock.

(4) Provide a static-electricity neutralizer that is electrically grounded in common with the balance to remove static charge from PM sample media (e.g., filters), as follows:

(i) You may use radioactive neutralizers such as a Polonium ($^{210}Po$) source. Replace radioactive sources at the intervals recommended by the neutralizer manufacturer.

(ii) You may use other neutralizers, such as corona-discharge ionizers. If you use a corona-discharge ionizer, we recommend that you monitor it for neutral net charge according to the ionizer manufacturer's recommendations.

(5) We recommend that you use a device to monitor the static charge of PM sample media (e.g., filter) surface.

(6) We recommend that you neutralize PM sample media (e.g., filters) to within ±2.0 V of neutral. Measure static voltages as follows:

(i) Measure static voltage of PM sample media (e.g., filters) according to the electrostatic voltmeter manufacturer's instructions.

(ii) Measure static voltage of PM sample media (e.g., filters) while the media is at least 15 cm away from any grounded surfaces to avoid mirror image charge interference.

■ 63. Section 1065.195 is amended by revising paragraphs (a) and (c)(4) to read as follows:

**§ 1065.195 PM-stabilization environment for in-situ analyzers.**

(a) This section describes the environment required to determine PM in-situ. For in-situ analyzers, such as an inertial balance, this is the environment within a PM sampling system that surrounds the PM sample media (e.g., filters). This is typically a very small volume.

* * * * *

(c) * * *

(4) *Absolute pressure.* Use good engineering judgment to maintain a tolerance of absolute pressure if your PM measurement instrument requires it.

* * * * *

## Subpart C—[Amended]

■ 64. Section 1065.201 is amended by revising paragraphs (a) and (b) and adding paragraph (h) to read as follows:

**§ 1065.201 Overview and general provisions.**

(a) *Scope.* This subpart specifies measurement instruments and associated system requirements related to emission testing in a laboratory or similar environment and in the field. This includes laboratory instruments and portable emission measurement systems (PEMS) for measuring engine parameters, ambient conditions, flow-related parameters, and emission concentrations.

(b) *Instrument types.* You may use any of the specified instruments as described in this subpart to perform emission tests. If you want to use one of these instruments in a way that is not specified in this subpart, or if you want to use a different instrument, you must first get us to approve your alternate procedure under § 1065.10. Where we specify more than one instrument for a particular measurement, we may identify which instrument serves as the reference for comparing with an alternate procedure.

* * * * *

(h) *Recommended practices.* This subpart identifies a variety of recommended but not required practices for proper measurements. We believe in most cases it is necessary to follow these recommended practices for accurate and repeatable measurements and we intend to follow them as much as possible for our testing. However, we do not specifically require you to follow these recommended practices to perform a valid test, as long as you meet the required calibrations and verifications of measurement systems specified in subpart D of this part.

■ 65. Section 1065.210 is amended by revising paragraph (a) before the figure to read as follows:

**§ 1065.210 Work input and output sensors.**

(a) *Application.* Use instruments as specified in this section to measure work inputs and outputs during engine operation. We recommend that you use sensors, transducers, and meters that meet the specifications in Table 1 of § 1065.205. Note that your overall systems for measuring work inputs and outputs must meet the linearity verifications in § 1065.307. We recommend that you measure work inputs and outputs where they cross the system boundary as shown in Figure 1 of § 1065.210. The system boundary is different for air-cooled engines than for liquid-cooled engines. If you choose to measure work before or after a work conversion, relative to the system boundary, use good engineering judgment to estimate any work-conversion losses in a way that avoids overestimation of total work. For example, if it is impractical to instrument the shaft of an exhaust turbine generating electrical work, you may decide to measure its converted electrical work. As another example, you may decide to measure the tractive (i.e., electrical output) power of a locomotive, rather than the brake power of the locomotive engine. In these cases, divide the electrical work by accurate values of electrical generator efficiency ($\eta<1$), or assume an efficiency of 1 ($\eta=1$), which would over-estimate brake-specific emissions. For the example of using locomotive tractive power with a generator efficiency of 1 ($\eta=1$), this means using the tractive power as the brake power in emission calculations. Do not underestimate any work conversion efficiencies for any components outside the system boundary that do not return work into the system boundary. And do not overestimate any work conversion efficiencies for components outside the system boundary that do return work into the system boundary. In all cases, ensure that you are able to accurately demonstrate compliance with the applicable standards.

* * * * *

■ 66. Section 1065.215 is amended by revising paragraph (e) to read as follows:

**§ 1065.215 Pressure transducers, temperature sensors, and dewpoint sensors.**

* * * * *

(e) *Dewpoint.* For PM-stabilization environments, we recommend chilled-surface hygrometers, which include chilled mirror detectors and chilled surface acoustic wave (SAW) detectors. For other applications, we recommend thin-film capacitance sensors. You may use other dewpoint sensors, such as a wet-bulb/dry-bulb psychrometer, where appropriate.

■ 67. Section 1065.220 is amended by revising paragraph (d) to read as follows:

**§ 1065.220 Fuel flow meter.**

* * * * *

(d) *Flow conditioning.* For any type of fuel flow meter, condition the flow as needed to prevent wakes, eddies, circulating flows, or flow pulsations from affecting the accuracy or repeatability of the meter. You may accomplish this by using a sufficient length of straight tubing (such as a length equal to at least 10 pipe diameters) or by using specially designed tubing bends, straightening fins, or pneumatic pulsation dampeners to establish a steady and predictable velocity profile upstream of the meter. Condition the flow as needed to prevent any gas bubbles in the fuel from affecting the fuel meter.

■ 68. Section 1065.265 is amended by revising paragraph (c) to read as follows:

**§ 1065.265 Nonmethane cutter.**

* * * * *

(c) *Configuration.* Configure the nonmethane cutter with a bypass line if it is needed for the verification described in § 1065.365.

* * * * *

■ 69. Section 1065.270 is amended by revising paragraphs (c) and (d) introductory text to read as follows:

**§ 1065.270 Chemiluminescent detector.**

* * * * *

(c) *$NO_2$-to-NO converter.* Place upstream of the CLD an internal or external $NO_2$-to-NO converter that meets the verification in § 1065.378. Configure the converter with a bypass line if it is needed to facilitate this verification.

(d) *Humidity effects.* You must maintain all CLD temperatures to prevent aqueous condensation. If you remove humidity from a sample upstream of a CLD, use one of the following configurations:

* * * * *

■ 70. Section 1065.280 is revised to read as follows:

**§ 1065.280 Paramagnetic and magnetopneumatic $O_2$ detection analyzers.**

(a) *Application.* You may use a paramagnetic detection (PMD) or magnetopneumatic detection (MPD) analyzer to measure $O_2$ concentration in raw or diluted exhaust for batch or continuous sampling. You may use $O_2$ measurements with intake air or fuel flow measurements to calculate exhaust flow rate according to § 1065.650.

(b) *Component requirements.* We recommend that you use a PMD or MPD analyzer that meets the specifications in Table 1 of § 1065.205. Note that it must meet the linearity verification in § 1065.307. You may use a PMD or MPD that has compensation algorithms that are functions of other gaseous measurements and the engine's known or assumed fuel properties. The target value for any compensation algorithm is 0.0% (that is, no bias high and no bias low), regardless of the uncompensated signal's bias.

■ 71. Section 1065.290 is amended by revising paragraph (c)(1) to read as follows:

**§ 1065.290 PM gravimetric balance.**

* * * * *

(c) * * *

(1) Use a pan that centers the PM sample media (such as a filter) on the weighing pan. For example, use a pan in the shape of a cross that has upswept tips that center the PM sample media on the pan.

* * * * *

## Subpart D—[Amended]

■ 72. Section 1065.303 is revised to read as follows:

**§ 1065.303 Summary of required calibration and verifications.**

The following table summarizes the required and recommended calibrations and verifications described in this subpart and indicates when these have to be performed:

TABLE 1 OF § 1065.303.—SUMMARY OF REQUIRED CALIBRATION AND VERIFICATIONS

| Type of calibration or verification | Minimum frequency [a] |
|---|---|
| § 1065.305: Accuracy, repeatability and noise ... | Accuracy: Not required, but recommended for initial installation.<br>Repeatability: Not required, but recommended for initial installation.<br>Noise: Not required, but recommended for initial installation. |

TABLE 1 OF § 1065.303.—SUMMARY OF REQUIRED CALIBRATION AND VERIFICATIONS—Continued

| Type of calibration or verification | Minimum frequency [a] |
|---|---|
| § 1065.307: Linearity | Speed: Upon initial installation, within 370 days before testing and after major maintenance.<br>Torque: Upon initial installation, within 370 days before testing and after major maintenance.<br>Electrical power: Upon initial installation, within 370 days before testing and after major maintenance.<br>Clean gas and diluted exhaust flows: Upon initial installation, within 370 days before testing and after major maintenance, unless flow is verified by propane check or by carbon or oxygen balance.<br>Raw exhaust flow: Upon initial installation, within 185 days before testing and after major maintenance, unless flow is verified by propane check or by carbon or oxygen balance.<br>Gas analyzers: Upon initial installation, within 35 days before testing and after major maintenance.<br>PM balance: Upon initial installation, within 370 days before testing and after major maintenance.<br>Stand-alone pressure and temperature: Upon initial installation, within 370 days before testing and after major maintenance. |
| § 1065.308: Continuous analyzer system response and recording. | Upon initial installation, after system reconfiguration, and after major maintenance. |
| § 1065.309: Continuous analyzer uniform response. | Upon initial installation, after system reconfiguration, and after major maintenance. |
| § 1065.310: Torque | Upon initial installation and after major maintenance. |
| § 1065.315: Pressure, temperature, dewpoint | Upon initial installation and after major maintenance. |
| § 1065.320: Fuel flow | Upon initial installation and after major maintenance. |
| § 1065.325: Intake flow | Upon initial installation and after major maintenance. |
| § 1065.330: Exhaust flow | Upon initial installation and after major maintenance. |
| § 1065.340: Diluted exhaust flow (CVS) | Upon initial installation and after major maintenance. |
| § 1065.341: CVS and batch sampler verification [b]. | Upon initial installation, within 35 days before testing, and after major maintenance. |
| § 1065.345: Vacuum leak | Before each laboratory test according to subpart F of this part and before each field test according to subpart J of this part. |
| § 1065.350: $CO_2$ NDIR $H_2O$ interference | Upon initial installation and after major maintenance. |
| § 1065.355: CO NDIR $CO_2$ and $H_2O$ interference. | Upon initial installation and after major maintenance. |
| § 1065.360: FID calibration THC FID optimization, and THC FID verification. | Calibrate all FID analyzers: Upon initial installation and after major maintenance.<br>Optimize and determine $CH_4$ response for THC FID analyzers: upon initial installation and after major maintenance.<br>Verify $CH_4$ response for THC FID analyzers: Upon initial installation, within 185 days before testing, and after major maintenance. |
| § 1065.362: Raw exhaust FID $O_2$ interference | For all FID analyzers: Upon initial installation, and after major maintenance.<br>For THC FID analyzers: Upon initial installation, after major maintenance, and after FID optimization according to § 1065.360. |
| § 1065.365: Nonmethane cutter penetration | Upon initial installation, within 185 days before testing, and after major maintenance. |
| § 1065.370: CLD $CO_2$ and $H_2O$ quench | Upon initial installation and after major maintenance. |
| § 1065.372: NDUV HC and $H_2O$ interference | Upon initial installation and after major maintenance. |
| § 1065.376: Chiller $NO_2$ penetration | Upon initial installation and after major maintenance. |
| § 1065.378: $NO_2$-to-NO converter conversion | Upon initial installation, within 35 days before testing, and after major maintenance. |
| § 1065.390: PM balance and weighing | Independent verification: Upon initial installation, within 370 days before testing, and after major maintenance.<br>Zero, span, and reference sample verifications: Within 12 hours of weighing, and after major maintenance. |
| § 1065.395: Inertial PM balance and weighing | Independent verification: Upon initial installation, within 370 days before testing, and after major maintenance.<br>Other verifications: Upon initial installation and after major maintenance. |

[a] Perform calibrations and verifications more frequently, according to measurement system manufacturer instructions and good engineering judgment.

[b] The CVS verification described in § 1065.341 is not required for systems that agree within ± 2% based on a chemical balance of carbon or oxygen of the intake air, fuel, and diluted exhaust.

■ 73. Section 1065.305 is amended by revising paragraphs (d)(4), (d)(8), and (d)(9)(iii) to read as follows:

**§ 1065.305 Verifications for accuracy, repeatability, and noise.**

* * * * *

(d) * * *

(4) Use the instrument to quantify a NIST-traceable reference quantity, $y_{ref}$. For gas analyzers the reference gas must meet the specifications of § 1065.750. Select a reference quantity near the mean value expected during testing. For all gas analyzers, use a quantity near the flow-weighted mean concentration expected at the standard or expected during testing, whichever is greater. For noise verification, use the same zero gas from paragraph (e) of this section as the reference quantity. In all cases, allow time for the instrument to stabilize while it measures the reference quantity. Stabilization time may include time to purge an instrument and time to account for its response.

* * * * *

(8) Repeat the steps specified in paragraphs (d)(2) through (7) of this section until you have ten arithmetic means ($\bar{y}_1$, $\bar{y}_2$, $\bar{y}_i$,...$\bar{y}_{10}$), ten standard deviations, ($\sigma_1$, $\sigma_2$, $\sigma_i$,...$\sigma_{10}$), and ten errors ($\varepsilon_1$, $\varepsilon_2$, $\varepsilon_i$,...$\varepsilon_{10}$).

(9) * * *

(iii) *Noise.* Noise is two times the root-mean-square of the ten standard

deviations (that is, noise = $2 \cdot rms_{\sigma}$) when the reference signal is a zero-quantity signal. Refer to the example of a root-mean-square calculation in § 1065.602. We recommend that instrument noise be within the specifications in Table 1 of § 1065.205.

* * * * *

■ 74. Section 1065.307 is amended by revising paragraphs (b), (c)(6), (c)(13), and Table 1 and adding paragraphs (d)(8) and (e) before the newly revised table to read as follows:

**§ 1065.307 Linearity verification.**

* * * * *

(b) *Performance requirements.* If a measurement system does not meet the applicable linearity criteria in Table 1 of this section, correct the deficiency by re-calibrating, servicing, or replacing components as needed. Repeat the linearity verification after correcting the deficiency to ensure that the measurement system meets the linearity criteria. Before you may use a measurement system that does not meet linearity criteria, you must demonstrate to us that the deficiency does not adversely affect your ability to demonstrate compliance with the applicable standards.

(c) * * *

(6) For all measured quantities, use instrument manufacturer recommendations and good engineering judgment to select reference values, $y_{refi}$, that cover a range of values that you expect would prevent extrapolation beyond these values during emission testing. We recommend selecting a zero reference signal as one of the reference values of the linearity verification. For stand-alone pressure and temperature linearity verifications, we recommend at least three reference values. For all other linearity verifications select at least ten reference values.

* * * * *

(13) Use the arithmetic means, $\bar{y}_i$, and reference values, $\bar{y}_{refi}$, to calculate least-squares linear regression parameters and statistical values to compare to the minimum performance criteria specified in Table 1 of this section. Use the calculations described in § 1065.602. Using good engineering judgment, you may weight the results of individual data pairs (i.e., ($y_{refi}$, $\bar{y}_i$)), in the linear regression calculations.

(d) * * *

(8) *Temperature.* You may perform the linearity verification for temperature measurement systems with thermocouples, RTDs, and thermistors by removing the sensor from the system and using a simulator in its place. Use a NIST-traceable simulator that is independently calibrated and, as appropriate, cold-junction compensated. The simulator uncertainty scaled to temperature must be less than 0.5% of $T_{max}$. If you use this option, you must use sensors that the supplier states are accurate to better than 0.5% of $T_{max}$ compared with their standard calibration curve.

(e) *Measurement systems that require linearity verification.* Table 1 of this section indicates measurement systems that require linearity verifications, subject to the following provisions:

(1) Perform a linearity verification more frequently based on the instrument manufacturer's recommendation or good engineering judgment.

(2) The expression ''min'' refers to the minimum reference value used during the linearity verification. Note that this value may be zero or a negative value depending on the signal.

(3) The expression ''max'' generally refers to the maximum reference value used during the linearity verification. For example for gas dividers, $x_{max}$ is the undivided, undiluted, span gas concentration. The following are special cases where ''max'' refers to a different value:

(i) For linearity verification with a PM balance, $m_{max}$ refers to the typical mass of a PM filter.

(ii) For linearity verification of torque, $T_{max}$ refers to the manufacturer's specified engine torque peak value of the lowest torque engine to be tested.

(4) The specified ranges are inclusive. For example, a specified range of 0.98–1.02 for $a_1$ means $0.98 \leq a_1 \leq 1.02$.

(5) These linearity verifications are optional for systems that pass the flow-rate verification for diluted exhaust as described in § 1065.341 (the propane check) or for systems that agree within ±2% based on a chemical balance of carbon or oxygen of the intake air, fuel, and exhaust.

(6) You must meet the $a_1$ criteria for these quantities only if the absolute value of the quantity is required, as opposed to a signal that is only linearly proportional to the actual value.

(7) The following provisions apply for stand-alone temperature measurements:

(i) The following temperature linearity checks are required:

(A) Air intake.

(B) Aftertreatment bed(s), for engines tested with aftertreatment devices subject to cold-start testing.

(C) Dilution air for PM sampling, including CVS, double-dilution, and partial-flow systems.

(D) PM sample, if applicable.

(E) Chiller sample, for gaseous sampling systems that use chillers to dry samples.

(ii) The following temperature linearity checks are required only if specified by the engine manufacturer:

(A) Fuel inlet.

(B) Air outlet to the test cell's charge air cooler air outlet, for engines tested with a laboratory heat exchanger that simulates an installed charge air cooler.

(C) Coolant inlet to the test cell's charge air cooler, for engines tested with a laboratory heat exchanger that simulates an installed charge air cooler.

(D) Oil in the sump/pan.

(E) Coolant before the thermostat, for liquid-cooled engines.

(8) The following provisions apply for stand-alone pressure measurements:

(i) The following pressure linearity checks are required:

(A) Air intake restriction.

(B) Exhaust back pressure.

(C) Barometer.

(D) CVS inlet gage pressure.

(E) Chiller sample, for gaseous sampling systems that use chillers to dry samples.

(ii) The following pressure linearity checks are required only if specified by the engine manufacturer:

(A) The test cell's charge air cooler and interconnecting pipe pressure drop, for turbo-charged engines tested with a laboratory heat exchanger that simulates an installed charge air cooler.

(B) Fuel outlet.

TABLE 1 OF § 1065.307.—MEASUREMENT SYSTEMS THAT REQUIRE LINEARITY VERIFICATIONS

| Measurement system | Quantity | Minimum verification frequency | Linearity criteria | | | |
|---|---|---|---|---|---|---|
| | | | $\lvert x_{min}(a_1-1)+a_0 \rvert$ | $a_1$ | *SEE* | $r^2$ |
| Engine speed | $f_n$ | Within 370 days before testing | ≤0.05 % $f_{nmax}$ | 0.98–1.02 | ≤2 % · $f_{nmax}$ | ≥0.990 |
| Engine torque | $T$ | Within 370 days before testing | ≤1 % · $T_{max}$ | 0.98–1.02 | ≤2 % · $T_{max}$ | ≥0.990 |
| Electrical work | $W$ | Within 370 days before testing | ≤1 % · $T_{max}$ | 0.98–1.02 | ≤2 % · $T_{max}$ | ≥0.990 |
| Fuel flow rate | $\dot{m}$ | Within 370 days before testing [d] | ≤1 % · $\dot{m}_{max}$ | 0.98–1.02 | ≤2 % · $\dot{m}_{max}$ | ≥0.990 |

TABLE 1 OF § 1065.307.—MEASUREMENT SYSTEMS THAT REQUIRE LINEARITY VERIFICATIONS—Continued

| Measurement system | Quantity | Minimum verification frequency | Linearity criteria | | | |
|---|---|---|---|---|---|---|
| | | | $\lvert x_{min}(a_1-1)+a_0 \rvert$ | $a_1$ | *SEE* | $r^2$ |
| Intake-air flow rate | $\dot{n}$ | Within 370 days before testing | $\leq 1\ \% \cdot \dot{n}_{max}$ | 0.98–1.02 | $\leq 2\ \% \cdot \dot{n}_{max}$ | ≥0.990 |
| Dilution air flow rate | $\dot{n}$ | Within 370 days before testing | $\leq 1\ \% \cdot \dot{n}_{max}$ | 0.98–1.02 | $\leq 2\ \% \cdot \dot{n}_{max}$ | ≥0.990 |
| Diluted exhaust flow rate | $\dot{n}$ | Within 370 days before testing | $\leq 1\ \% \cdot \dot{n}_{max}$ | 0.98–1.02 | $\leq 2\ \% \cdot \dot{n}_{max}$ | ≥0.990 |
| Raw exhaust flow rate | $\dot{n}$ | Within 185 days before testing | $\leq 1\ \% \cdot \dot{n}_{max}$ | 0.98–1.02 | $\leq 2\ \% \cdot \dot{n}_{max}$ | ≥0.990 |
| Batch sampler flow rates | $\dot{n}$ | Within 370 days before testing | $\leq 1\ \% \cdot \dot{n}_{max}$ | 0.98–1.02 | $\leq 2\ \% \cdot \dot{n}_{max}$ | ≥0.990 |
| Gas dividers | $x/x_{span}$ | Within 370 days before testing | $\leq 0.5\ \% \cdot x_{max}$ | 0.98–1.02 | $\leq 2\ \% \cdot x_{max}$ | ≥0.990 |
| Gas analyzers for laboratory testing. | $x$ | Within 35 days before testing | $\leq 0.5\ \% \cdot x_{max}$ | 0.99–1.01 | $\leq 1\ \% \cdot x_{max}$ | ≥0.998 |
| Gas analyzers for field testing | $x$ | Within 35 days before testing | $\leq 1\ \% \cdot x_{max}$ | 0.99–1.01 | $\leq 1\ \% \cdot x_{max}$ | ≥0.998 |
| PM balance | $m$ | Within 370 days before testing | $\leq 1\ \% \cdot m_{max}$ | 0.99–1.01 | $\leq 1\ \% \cdot m_{max}$ | ≥0.998 |
| Stand-alone pressures | $p$ | Within 370 days before testing | $\leq 1\ \% \cdot p_{max}$ | 0.99–1.01 | $\leq 1\ \% \cdot p_{max}$ | ≥0.998 |
| Analog-to-digital conversion of stand-alone temperature signals. | $T$ | Within 370 days before testing | $\leq 1\ \% \cdot T_{max}$ | 0.99–1.01 | $\leq 1\ \% \cdot T_{max}$ | ≥0.998 |

■ 75. Section 1065.308 is revised to read as follows:

**§ 1065.308 Continuous gas analyzer system-response and updating-recording verification—general.**

This section describes a general verification procedure for continuous gas analyzer system response and update recording. See § 1065.309 for verification procedures that apply for systems or components involving $H_2O$ correction.

(a) *Scope and frequency.* Perform this verification after installing or replacing a gas analyzer that you use for continuous sampling. Also perform this verification if you reconfigure your system in a way that would change system response. For example, perform this verification if you add a significant volume to the transfer lines by increasing their length or adding a filter; or if you reduce the frequency at which you sample and record gas-analyzer concentrations. You do not have to perform this verification for gas analyzer systems used only for discrete-mode testing.

(b) *Measurement principles.* This test verifies that the updating and recording frequencies match the overall system response to a rapid change in the value of concentrations at the sample probe. Gas analyzer systems must be optimized such that their overall response to a rapid change in concentration is updated and recorded at an appropriate frequency to prevent loss of information. This test also verifies that continuous gas analyzer systems meet a minimum response time.

(c) *System requirements.* To demonstrate acceptable updating and recording with respect to the system's overall response, use good engineering judgment to select one of the following criteria that your system must meet:

(1) The product of the mean rise time and the frequency at which the system records an updated concentration must be at least 5, and the product of the mean fall time and the frequency at which the system records an updated concentration must be at least 5. This criterion makes no assumption regarding the frequency content of changes in emission concentrations during emission testing; therefore, it is valid for any testing. In any case the mean rise time and the mean fall time must be no more than 10 seconds.

(2) The frequency at which the system records an updated concentration must be at least 5 Hz. This criterion assumes that the frequency content of significant changes in emission concentrations during emission testing do not exceed 1 Hz. In any case the mean rise time and the mean fall time must be no more than 10 seconds.

(3) You may use other criteria if we approve the criteria in advance.

(4) You may meet the overall PEMS verification in § 1065.920 instead of the verification in this section for field testing with PEMS.

(d) *Procedure.* Use the following procedure to verify the response of a continuous gas analyzer system:

(1) *Instrument setup.* Follow the analyzer system manufacturer's start-up and operating instructions. Adjust the system as needed to optimize performance.

(2) *Equipment setup.* We recommend using minimal lengths of gas transfer lines between all connections and fast-acting three-way valves (2 inlets, 1 outlet) to control the flow of zero and blended span gases to the analyzers. You may use a gas mixing or blending device to equally blend an NO-CO-$CO_2$-$C_3H_8$-$CH_4$, balance $N_2$ span gas with a span gas of $NO_2$, balance purified synthetic air. Standard binary span gases may also be used, where applicable, in place of blended NO-CO-$CO_2$-$C_3H_8$-$CH_4$, balance $N_2$ span gas, but separate response tests must then be run for each analyzer. In designing your experimental setup, avoid pressure pulsations due to stopping the flow through the gas-blending device. Note that you may omit any of these gas constituents if they are not relevant to your analyzers for this verification.

(3) *Data collection.* (i) Start the flow of zero gas.

(ii) Allow for stabilization, accounting for transport delays and the slowest instrument's full response.

(iii) Start recording data at the frequency used during emission testing. Each recorded value must be a unique updated concentration measured by the analyzer; you may not use interpolation to increase the number of recorded values.

(iv) Switch the flow to allow the blended span gases to flow to the analyzer.

(v) Allow for transport delays and the slowest instrument's full response.

(vi) Repeat the steps in paragraphs (d)(3)(i) through (v) of this section to record seven full cycles, ending with zero gas flowing to the analyzers.

(vii) Stop recording.

(e) *Performance evaluation.* (1) If you chose to demonstrate compliance with paragraph (c)(1) of this section, use the data from paragraph (d)(3) of this section to calculate the mean rise time, $t_{10-90}$, and mean fall time, $t_{10-90}$, for each of the analyzers. Multiply these times (in seconds) by their respective recording frequencies in Hertz (1/second). The value for each result must be at least 5. If the value is less than 5, increase the recording frequency or adjust the flows or design of the sampling system to increase the rise time and fall time as needed. You may

also configure digital filters to increase rise and fall times. The mean rise time and mean fall time must be no greater than 10 seconds.

(2) If a measurement system fails the criterion in paragraph (e)(1) of this section, ensure that signals from the system are updated and recorded at a frequency of at least 5 Hz. In any case, the mean rise time and mean fall time must be no greater than 10 seconds.

(3) If a measurement system fails the criteria in paragraphs (e)(1) and (2) of this section, you may use the continuous analyzer system only if the deficiency does not adversely affect your ability to show compliance with the applicable standards.

■ 76. Section 1065.309 is revised to read as follows:

**§ 1065.309 Continuous gas analyzer system-response and updating-recording verification—with humidified-response verification.**

This section describes a verification procedure for continuous gas analyzer system response and update recording for systems or components involving $H_2O$ correction. See § 1065.308 for verification procedures that apply for systems not involving humidification.

(a) *Scope and frequency.* Perform this verification to determine a continuous gas analyzer's response, where one analyzer's response is compensated by another's to quantify a gaseous emission. For this check we consider water vapor a gaseous constituent. You do not have to perform this verification for batch gas analyzer systems or for continuous analyzer systems that are only used for discrete-mode testing. Perform this verification after initial installation (i.e. test cell commissioning). The verification in this section is required for initial installation of systems or components involving $H_2O$ correction. For later verifications, you may use the procedures specified in § 1065.308, as long as your system includes no replacement components involving $H_2O$ correction that have never been verified using the procedures in this section.

(b) *Measurement principles.* This procedure verifies the time-alignment and uniform response of continuously combined gas measurements. For this procedure, ensure that all compensation algorithms and humidity corrections are turned on.

(c) *System requirements.* Demonstrate that continuously combined concentration measurements have a uniform rise and fall during a system response to a rapid change in multiple gas concentrations. You must meet one of the following criteria:

(1) The product of the mean rise time and the frequency at which the system records an updated concentration must be at least 5, and the product of the mean fall time and the frequency at which the system records an updated concentration must be at least 5. This criterion makes no assumption regarding the frequency content of changes in emission concentrations during emission testing; therefore, it is valid for any testing. In no case may the mean rise time or the mean fall time be more than 10 seconds.

(2) The frequency at which the system records an updated concentration must be at least 5 Hz. This criterion assumes that the frequency content of significant changes in emission concentrations during emission testing do not exceed 1 Hz. In no case may the mean rise time or the mean fall time be more than 10 seconds.

(3) You may use other criteria if we approve them in advance.

(4) You may meet the overall PEMS verification in § 1065.920 instead of the verification in this section for field testing with PEMS.

(d) *Procedure.* Use the following procedure to verify the response of a continuous gas analyzer system:

(1) *Instrument setup.* Follow the analyzer system manufacturer's start-up and operating instructions. Adjust the system as needed to optimize performance.

(2) *Equipment setup.* We recommend using minimal lengths of gas transfer lines between all connections and fast-acting three-way valves (2 inlets, 1 outlet) to control the flow of zero and blended span gases to the analyzers. You may use a gas blending or mixing device to equally blend a span gas of $NO$-$CO$-$CO_2$-$C_3H_8$-$CH_4$, balance $N_2$, with a span gas of $NO_2$, balance purified synthetic air. Standard binary span gases may be used, where applicable, in place of blended $NO$-$CO$-$CO_2$-$C_3H_8$-$CH_4$, balance $N_2$ span gas, but separate response tests must then be run for each analyzer. In designing your experimental setup, avoid pressure pulsations due to stopping the flow through the gas blending device. Span gases must be humidified before entering the analyzer; however, you may not humidify $NO_2$ span gas by passing it through a sealed humidification vessel that contains water. We recommend humidifying your $NO$-$CO$-$CO_2$-$C_3H_8$-$CH_4$, balance $N_2$ blended gas by flowing the gas mixture through a sealed vessel that humidifies the gas by bubbling it through distilled water and then mixing the gas with dry $NO_2$ gas, balance purified synthetic air. If your system does not use a sample dryer to remove water from the sample gas, you must humidify your span gas by flowing the gas mixture through a sealed vessel that humidifies the gas to the highest sample dewpoint that you estimate during emission sampling by bubbling it through distilled water. If your system uses a sample dryer during testing that has passed the sample dryer verification check in § 1065.342, you may introduce the humidified gas mixture downstream of the sample dryer by bubbling it through distilled water in a sealed vessel at (25 ± 10) °C, or a temperature greater than the dewpoint determined in § 1065.145(d)(2). In all cases, maintain the humidified gas temperature downstream of the vessel at least 5 °C above its local dewpoint in the line. We recommend that you heat all gas transfer lines and valves located downstream of the vessel as needed to avoid condensation. Note that you may omit any of these gas constituents if they are not relevant to your analyzers for this verification. If any of your gas constituents are not susceptible to water compensation, you may perform the response check for these analyzers without humidification.

(3) *Data collection.* (i) Start the flow of zero gas.

(ii) Allow for stabilization, accounting for transport delays and the slowest instrument's full response.

(iii) Start recording data at the frequency used during emission testing. Each recorded value must be a unique updated concentration measured by the analyzer; you may not use interpolation to increase the number of recorded values.

(iv) Switch the flow to allow the blended span gases to flow to the analyzers.

(v) Allow for transport delays and the slowest instrument's full response.

(vi) Repeat the steps in paragraphs (d)(3)(i) through (v) of this section to record seven full cycles, ending with zero gas flowing to the analyzers.

(vii) Stop recording.

(e) *Performance evaluations.* (1) If you chose to demonstrate compliance with paragraph (c)(1) of this section, use the data from paragraph (d)(3) of this section to calculate the mean rise time, $t_{10-90}$, and mean fall time, $t_{S90-10}$, for each of the analyzers. Multiply these times (in seconds) by their respective recording frequencies in Hz (1/second). The value for each result must be at least 5. If the value is less than 5, increase the recording frequency or adjust the flows or design of the sampling system to increase the rise time and fall time as needed. You may also configure digital filters to increase rise and fall times. In no case may the

mean rise time or mean fall time be greater than 10 seconds.

(2) If a measurement system fails the criterion in paragraph (e)(1) of this section, ensure that signals from the system are updated and recorded at a frequency of at least 5 Hz. In no case may the mean rise time or mean fall time be greater than 10 seconds.

(3) If a measurement system fails the criteria in paragraphs (e)(1) and (2) of this section, you may use the continuous analyzer system only if the deficiency does not adversely affect your ability to show compliance with the applicable standards.

■ 77. Section 1065.310 is amended by revising paragraph (d) to read as follows:

**§ 1065.310 Torque calibration.**

* * * * *

(d) *Strain gage or proving ring calibration.* This technique applies force either by hanging weights on a lever arm (these weights and their lever arm length are not used as part of the reference torque determination) or by operating the dynamometer at different torques. Apply at least six force combinations for each applicable torque-measuring range, spacing the force quantities about equally over the range. Oscillate or rotate the dynamometer during calibration to reduce frictional static hysteresis. In this case, the reference torque is determined by multiplying the force output from the reference meter (such as a strain gage or proving ring) by its effective lever-arm length, which you measure from the point where the force measurement is made to the dynamometer's rotational axis. Make sure you measure this length perpendicular to the reference meter's measurement axis and perpendicular to the dynamometer's rotational axis.

■ 78. Section 1065.315 is amended by revising paragraph (a)(2) to read as follows:

**§ 1065.315 Pressure, temperature, and dewpoint calibration.**

(a) * * *

(2) *Temperature.* We recommend digital dry-block or stirred-liquid temperature calibrators, with data logging capabilities to minimize transcription errors. We recommend using calibration reference quantities that are NIST-traceable within 0.5% uncertainty. You may perform the linearity verification for temperature measurement systems with thermocouples, RTDs, and thermistors by removing the sensor from the system and using a simulator in its place. Use a NIST-traceable simulator that is independently calibrated and, as appropriate, cold-junction compensated. The simulator uncertainty scaled to temperature must be less than 0.5% of $T_{max.}$ If you use this option, you must use sensors that the supplier states are accurate to better than 0.5% of $T_{max}$ compared with their standard calibration curve.

* * * * *

■ 79. Section 1065.340 is amended by revising paragraphs (f)(5), (f)(6)(ii), (f)(7), (f)(9), (f)(10), (g)(6)(i), and Figure 1 to read as follows:

**§ 1065.340 Diluted exhaust flow (CVS) calibration.**

* * * * *

(f) * * *

(5) Set the variable restrictor to its wide-open position. Instead of a variable restrictor, you may alternately vary the pressure downstream of the CFV by varying blower speed or by introducing a controlled leak. Note that some blowers have limitations on nonloaded conditions.

(6) * * *

(ii) The mean dewpoint of the calibration air, $\bar{T}_{dew}$. See § 1065.640 for permissible assumptions during emission measurements.

* * * * *

(7) Incrementally close the restrictor valve or decrease the downstream pressure to decrease the differential pressure across the CFV, $\Delta\bar{p}_{CFV}$.

* * * * *

(9) Determine $C_d$ and the lowest allowable pressure ratio, $r$, according to § 1065.640.

(10) Use $C_d$ to determine CFV flow during an emission test. Do not use the CFV below the lowest allowed $r$, as determined in § 1065.640.

* * * * *

(g) * * *

(6) * * *

(i) The mean flow rate of the reference flow meter, $\bar{\dot{n}}_{ref}$. This may include several measurements of different quantities, such as reference meter pressures and temperatures, for calculating $\bar{\dot{n}}_{ref}$.

* * * * *

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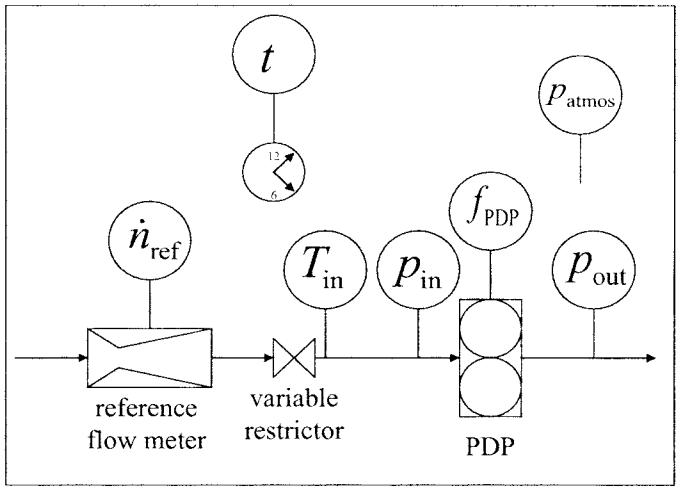
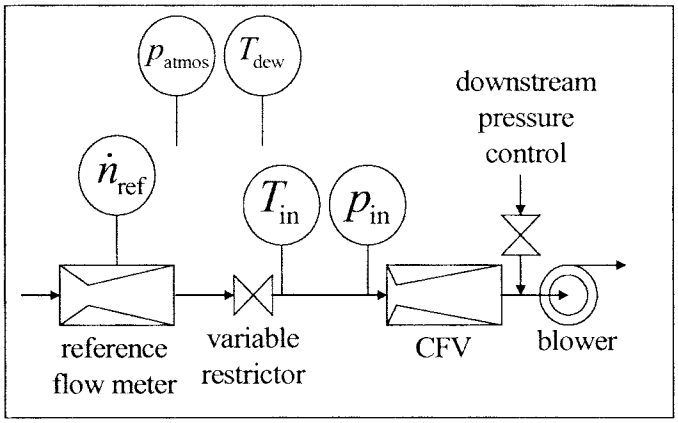
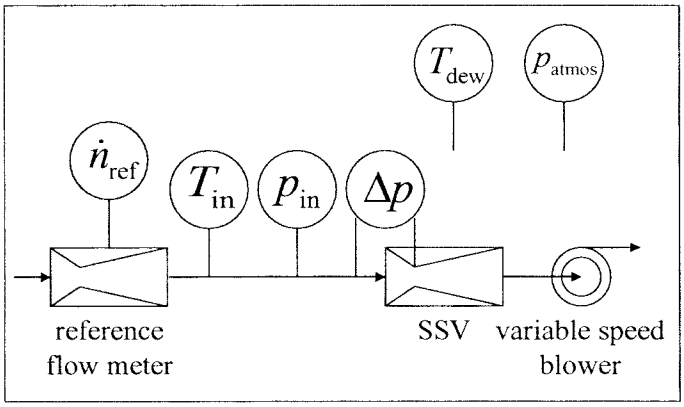
Figure 1 of 1065.340 CVS calibration configurations.

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■ 80. Section 1065.341 is amended by revising paragraphs (d) introductory text, (d)(7), and (g) introductory text to read as follows:

**§ 1065.341 CVS and batch sampler verification (propane check).**

* * * * *

(d) If you performed the vacuum-side leak verification of the HC sampling system as described in paragraph (c)(8) of this section, you may use the HC contamination procedure in § 1065.520(g) to verify HC contamination. Otherwise, zero, span, and verify contamination of the HC sampling system, as follows:

* * * * *

(7) When the overflow HC concentration does not exceed 2 μmol/mol, record this value as $x_{THCinit}$ and use it to correct for HC contamination as described in § 1065.660.

* * * * *

(g) You may repeat the propane check to verify a batch sampler, such as a PM secondary dilution system.

* * * * *

■ 81. A new § 1065.342 is added to read as follows:

**§ 1065.342 Sample dryer verification.**

(a) *Scope and frequency.* If you use a sample dryer as allowed in § 1065.145(d)(2) to remove water from the sample gas, verify the performance upon installation, after major maintenance, for thermal chiller. For osmotic membrane dryers, verify the performance upon installation, after major maintenance, and within 35 days of testing.

(b) *Measurement principles.* Water can inhibit an analyzer's ability to properly measure the exhaust component of interest and thus is sometimes removed before the sample gas reaches the analyzer. For example water can negatively interfere with a CLD's $NO_X$ response through collisional quenching and can positively interfere with an NDIR analyzer by causing a response similar to CO.

(c) *System requirements.* The sample dryer must meet the specifications as determined in § 1065.145(d)(2) for dewpoint, $T_{dew}$, and absolute pressure, $p_{total}$, downstream of the osmotic-membrane dryer or thermal chiller.

(d) *Sample dryer verification procedure.* Use the following method to determine sample dryer performance, or use good engineering judgment to develop a different protocol:

(1) Use PTFE or stainless steel tubing to make necessary connections.

(2) Humidify $N_2$ or purified air by bubbling it through distilled water in a sealed vessel that humidifies the gas to the highest sample dewpoint that you estimate during emission sampling.

(3) Introduce the humidified gas upstream of the sample dryer.

(4) Downstream of the vessel, maintain the humidified gas temperature at least 5 °C above its dewpoint.

(5) Measure the humidified gas dewpoint, $T_{dew}$, and pressure, $p_{total}$, as close as possible to the inlet of the sample dryer to verify the dewpoint is the highest that you estimated during emission sampling.

(6) Measure the humidified gas dewpoint, $T_{dew}$, and pressure, $p_{total}$, as close as possible to the outlet of the sample dryer.

(7) The sample dryer meets the verification if the results of paragraph (d)(6) of this section are less than the dew point corresponding to the sample dryer specifications as determined in § 1065.145(d)(2) plus 2 °C or if the mole fraction from (d)(6) is less than the corresponding sample dryer specifications plus 0.002 mol/mol.

(e) *Alternate sample dryer verification procedure.* The following method may be used in place of the sample dryer verification procedure in (d) of this section. If you use a humidity sensor for continuous monitoring of dewpoint at the sample dryer outlet you may skip the performance check in § 1065.342(d), but you must make sure that the dryer outlet humidity is below the minimum values used for quench, interference, and compensation checks.

■ 82. Section 1065.345 is revised to read as follows:

**§ 1065.345 Vacuum-side leak verification.**

(a) *Scope and frequency.* Verify that there are no significant vacuum-side leaks using one of the leak tests described in this section upon initial sampling system installation, after maintenance such as pre-filter changes, and within eight hours before each duty-cycle sequence. This verification does not apply to any full-flow portion of a CVS dilution system.

(b) *Measurement principles.* A leak may be detected either by measuring a small amount of flow when there should be zero flow, or by detecting the dilution of a known concentration of span gas when it flows through the vacuum side of a sampling system.

(c) *Low-flow leak test.* Test a sampling system for low-flow leaks as follows:

(1) Seal the probe end of the system by taking one of the following steps:

(i) Cap or plug the end of the sample probe.

(ii) Disconnect the transfer line at the probe and cap or plug the transfer line.

(iii) Close a leak-tight valve located in the sample transfer line within 92 cm of the probe.

(2) Operate all vacuum pumps. After stabilizing, verify that the flow through the vacuum-side of the sampling system is less than 0.5% of the system's normal in-use flow rate. You may estimate typical analyzer and bypass flows as an approximation of the system's normal in-use flow rate.

(d) *Dilution-of-span-gas leak test.* You may use any gas analyzer for this test. If you use a FID for this test, correct for any HC contamination in the sampling system according to § 1065.660. To avoid misleading results from this test, we recommend using only analyzers that have a repeatability of 0.5% or better at the span gas concentration used for this test. Perform a vacuum-side leak test as follows:

(1) Prepare a gas analyzer as you would for emission testing.

(2) Supply span gas to the analyzer port and verify that it measures the span gas concentration within its expected measurement accuracy and repeatability.

(3) Route overflow span gas to one of the following locations in the sampling system:

(i) The end of the sample probe.

(ii) Disconnect the transfer line at the probe connection, and overflow the span gas at the open end of the transfer line.

(iii) A three-way valve installed in-line between a probe and its transfer line, such as a system overflow zero and span port.

(4) Verify that the measured overflow span gas concentration is within ± 0.5% of the span gas concentration. A measured value lower than expected indicates a leak, but a value higher than expected may indicate a problem with the span gas or the analyzer itself. A measured value higher than expected does not indicate a leak.

(e) *Vacuum-decay leak test.* To perform this test you must apply a vacuum to the vacuum-side volume of your sampling system and then observe the leak rate of your system as a decay in the applied vacuum. To perform this test you must know the vacuum-side volume of your sampling system to within ± 10% of its true volume. For this test you must also use measurement instruments that meet the specifications of subpart C of this part and of this subpart D. Perform a vacuum-decay leak test as follows:

(1) Seal the probe end of the system as close to the probe opening as possible by taking one of the following steps:

(i) Cap or plug the end of the sample probe.

(ii) Disconnect the transfer line at the probe and cap or plug the transfer line.

(iii) Close a leak-tight valve in-line between a probe and transfer line.

(2) Operate all vacuum pumps. Draw a vacuum that is representative of normal operating conditions. In the case of sample bags, we recommend that you repeat your normal sample bag pump-down procedure twice to minimize any trapped volumes.

(3) Turn off the sample pumps and seal the system. Measure and record the absolute pressure of the trapped gas and optionally the system absolute temperature. Wait long enough for any transients to settle and long enough for a leak at 0.5% to have caused a pressure change of at least 10 times the resolution of the pressure transducer, then again record the pressure and optionally temperature.

(4) Calculate the leak flow rate based on an assumed value of zero for pumped-down bag volumes and based on known values for the sample system volume, the initial and final pressures, optional temperatures, and elapsed time. Using the calculations specified in 1065.644, verify that the vacuum-decay leak flow rate is less than 0.5% of the system's normal in-use flow rate.

■ 83. Section 1065.350 is amended by revising paragraphs (c) and (d) to read as follows:

**§ 1065.350 $H_2O$ interference verification for $CO_2$ NDIR analyzers.**

* * * * *

(c) *System requirements.* A $CO_2$ NDIR analyzer must have an $H_2O$ interference that is within (0.0 ±0.4) mmol/mol, though we strongly recommend a lower interference that is within (0.0 ±0.2) mmol/mol.

(d) *Procedure.* Perform the interference verification as follows:

(1) Start, operate, zero, and span the $CO_2$ NDIR analyzer as you would before an emission test.

(2) Create a humidified test gas by bubbling zero air that meets the specifications in § 1065.750 through distilled water in a sealed vessel. If the sample is not passed through a dryer, control the vessel temperature to generate an $H_2O$ level at least as high as the maximum expected during testing. If the sample is passed through a dryer during testing, control the vessel temperature to generate an $H_2O$ level at least as high as the level determined in § 1065.145(d)(2).

(3) Introduce the humidified test gas into the sample system. You may introduce it downstream of any sample dryer, if one is used during testing.

(4) Measure the humidified test gas dewpoint, $T_{dew}$, and pressure, $p_{total}$, as close as possible to the inlet of the analyzer.

(5) Downstream of the vessel, maintain the humidified test gas temperature at least 5 °C above its dewpoint.

(6) Allow time for the analyzer response to stabilize. Stabilization time may include time to purge the transfer line and to account for analyzer response.

(7) While the analyzer measures the sample's concentration, record 30 seconds of sampled data. Calculate the arithmetic mean of this data. The analyzer meets the interference verification if this value is within (0 ±0.4) mmol/mol.

* * * * *

■ 84. Section 1065.355 is amended by revising paragraph (d) to read as follows:

**§ 1065.355 $H_2O$ and $CO_2$ interference verification for CO NDIR analyzers.**

* * * * *

(d) *Procedure.* Perform the interference verification as follows:

(1) Start, operate, zero, and span the CO NDIR analyzer as you would before an emission test.

(2) Create a humidified $CO_2$ test gas by bubbling a $CO_2$ span gas through distilled water in a sealed vessel. If the sample is not passed through a dryer, control the vessel temperature to generate an $H_2O$ level at least as high as the maximum expected during testing. If the sample is passed through a dryer during testing, control the vessel temperature to generate an $H_2O$ level at least as high as the level determined in § 1065.145(d)(2). Use a $CO_2$ span gas concentration at least as high as the maximum expected during testing.

(3) Introduce the humidified $CO_2$ test gas into the sample system. You may introduce it downstream of any sample dryer, if one is used during testing.

(4) Measure the humidified $CO_2$ test gas dewpoint, $T_{dew}$, and pressure, $p_{total}$, as close as possible to the inlet of the analyzer.

(5) Downstream of the vessel, maintain the humidified gas temperature at least 5 °C above its dewpoint.

(6) Allow time for the analyzer response to stabilize. Stabilization time may include time to purge the transfer line and to account for analyzer response.

(7) While the analyzer measures the sample's concentration, record its output for 30 seconds. Calculate the arithmetic mean of this data.

(8) The analyzer meets the interference verification if the result of paragraph (d)(7) of this section meets the tolerance in paragraph (c) of this section.

(9) You may also run interference procedures for $CO_2$ and $H_2O$ separately. If the $CO_2$ and $H_2O$ levels used are higher than the maximum levels expected during testing, you may scale down each observed interference value by multiplying the observed interference by the ratio of the maximum expected concentration value to the actual value used during this procedure. You may run the separate interference procedures concentrations of $H_2O$ (down to 0.025 mol/mol $H_2O$ content) that are lower than the maximum levels expected during testing, but you must scale up the observed $H_2O$ interference by multiplying the observed interference by the ratio of the maximum expected $H_2O$ concentration value to the actual value used during this procedure. The sum of the two scaled interference values must meet the tolerance in paragraph (c) of this section.

* * * * *

■ 85. Section 1065.360 is revised to read as follows:

**§ 1065.360 FID optimization and verification.**

(a) *Scope and frequency.* For all FID analyzers, calibrate the FID upon initial installation. Repeat the calibration as needed using good engineering judgment. For a FID that measures THC, perform the following steps:

(1) Optimize the response to various hydrocarbons after initial analyzer installation and after major maintenance as described in paragraph (c) of this section.

(2) Determine the methane ($CH_4$) response factor after initial analyzer installation and after major maintenance as described in paragraph (d) of this section.

(3) Verify the methane ($CH_4$) response within 185 days before testing as described in paragraph (e) of this section.

(b) *Calibration.* Use good engineering judgment to develop a calibration procedure, such as one based on the FID-analyzer manufacturer's instructions and recommended frequency for calibrating the FID. Alternately, you may remove system components for off-site calibration. For a FID that measures THC, calibrate using $C_3H_8$ calibration gases that meet the specifications of § 1065.750. For a FID that measures $CH_4$, calibrate using $CH_4$ calibration gases that meet the specifications of § 1065.750. We recommend FID analyzer zero and span gases that contain approximately the flow-weighted mean concentration of $O_2$

expected during testing. If you use a FID to measure methane ($CH_4$) downstream of a nonmethane cutter, you may calibrate that FID using $CH_4$ calibration gases with the cutter. Regardless of the calibration gas composition, calibrate on a carbon number basis of one ($C_1$). For example, if you use a $C_3H_8$ span gas of concentration 200 µmol/mol, span the FID to respond with a value of 600 µmol/mol. As another example, if you use a $CH_4$ span gas with a concentration of 200 µmol/mol, span the FID to respond with a value of 200 µmol/mol.

(c) *THC FID response optimization.* This procedure is only for FID analyzers that measure THC. Use good engineering judgment for initial instrument start-up and basic operating adjustment using FID fuel and zero air. Heated FIDs must be within their required operating temperature ranges. Optimize FID response at the most common analyzer range expected during emission testing. Optimization involves adjusting flows and pressures of FID fuel, burner air, and sample to minimize response variations to various hydrocarbon species in the exhaust. Use good engineering judgment to trade off peak FID response to propane calibration gases to achieve minimal response variations to different hydrocarbon species. For an example of trading off response to propane for relative responses to other hydrocarbon species, see SAE 770141 (incorporated by reference in § 1065.1010). Determine the optimum flow rates and/or pressures for FID fuel, burner air, and sample and record them for future reference.

(d) *THC FID $CH_4$ response factor determination.* This procedure is only for FID analyzers that measure THC. Since FID analyzers generally have a different response to $CH_4$ versus $C_3H_8$, determine each THC FID analyzer's $CH_4$ response factor, $RF_{CH4[THC–FID]}$, after FID optimization. Use the most recent $RF_{CH4[THC–FID]}$ measured according to this section in the calculations for HC determination described in § 1065.660 to compensate for $CH_4$ response. Determine $RF_{CH4[THC–FID]}$ as follows, noting that you do not determine $RF_{CH4[THC–FID]}$ for FIDs that are calibrated and spanned using $CH_4$ with a nonmethane cutter:

(1) Select a $C_3H_8$ span gas concentration that you use to span your analyzers before emission testing. Use only span gases that meet the specifications of § 1065.750. Record the $C_3H_8$ concentration of the gas.

(2) Select a $CH_4$ span gas concentration that you use to span your analyzers before emission testing. Use only span gases that meet the specifications of § 1065.750. Record the $CH_4$ concentration of the gas.

(3) Start and operate the FID analyzer according to the manufacturer's instructions.

(4) Confirm that the FID analyzer has been calibrated using $C_3H_8$. Calibrate on a carbon number basis of one ($C_1$). For example, if you use a $C_3H_8$ span gas of concentration 200 µmol/mol, span the FID to respond with a value of 600 µmol/mol.

(5) Zero the FID with a zero gas that you use for emission testing.

(6) Span the FID with the $C_3H_8$ span gas that you selected under paragraph (d)(1) of this section.

(7) Introduce at the sample port of the FID analyzer, the $CH_4$ span gas that you selected under paragraph (d)(2) of this section.

(8) Allow time for the analyzer response to stabilize. Stabilization time may include time to purge the analyzer and to account for its response.

(9) While the analyzer measures the $CH_4$ concentration, record 30 seconds of sampled data. Calculate the arithmetic mean of these values.

(10) Divide the mean measured concentration by the recorded span concentration of the $CH_4$ calibration gas. The result is the FID analyzer's response factor for $CH_4$, $RF_{CH4[THC–FID]}$.

(e) *THC FID methane ($CH_4$) response verification.* This procedure is only for FID analyzers that measure THC. If the value of $RF_{CH4[THC–FID]}$ from paragraph (d) of this section is within ±5.0% of its most recent previously determined value, the THC FID passes the methane response verification. For example, if the most recent previous value for $RF_{CH4[THC–FID]}$ was 1.05 and it changed by ±0.05 to become 1.10 or it changed by −0.05 to become 1.00, either case would be acceptable because ±4.8% is less than ±5.0%. Verify $RF_{CH4[THC–FID]}$ as follows:

(1) First verify that the flow rates and/or pressures of FID fuel, burner air, and sample are each within ±0.5% of their most recent previously recorded values, as described in paragraph (c) of this section. You may adjust these flow rates as necessary. Then determine the $RF_{CH4[THC–FID]}$ as described in paragraph (d) of this section and verify that it is within the tolerance specified in this paragraph (e).

(2) If $RF_{CH4[THC–FID]}$ is is not within the tolerance specified in this paragraph (e), re-optimize the FID response as described in paragraph (c) of this section.

(3) Determine a new $RF_{CH4[THC–FID]}$ as described in paragraph (d) of this section. Use this new value of $RF_{CH4[THC–FID]}$ in the calculations for HC determination, as described in § 1065.660.

■ 86. Section 1065.362 is amended by revising paragraph (d) to read as follows:

**§ 1065.362 Non-stoichiometric raw exhaust FID $O_2$ interference verification.**

* * * * *

(d) *Procedure.* Determine FID $O_2$ interference as follows, noting that you may use one or more gas dividers to create the reference gas concentrations that are required to perform this verification:

(1) Select three span reference gases that contain a $C_3H_8$ concentration that you use to span your analyzers before emission testing. Use only span gases that meet the specifications of § 1065.750. You may use $CH_4$ span reference gases for FIDs calibrated on $CH_4$ with a nonmethane cutter. Select the three balance gas concentrations such that the concentrations of $O_2$ and $N_2$ represent the minimum, maximum, and average $O_2$ concentrations expected during testing. The requirement for using the average $O_2$ concentration can be removed if you choose to calibrate the FID with span gas balanced with the average expected oxygen concentration.

(2) Confirm that the FID analyzer meets all the specifications of § 1065.360.

(3) Start and operate the FID analyzer as you would before an emission test. Regardless of the FID burner's air source during testing, use zero air as the FID burner's air source for this verification.

(4) Zero the FID analyzer using the zero gas used during emission testing.

(5) Span the FID analyzer using a span gas that you use during emission testing.

(6) Check the zero response of the FID analyzer using the zero gas used during emission testing. If the mean zero response of 30 seconds of sampled data is within ±0.5% of the span reference value used in paragraph (d)(5) of this section, then proceed to the next step; otherwise restart the procedure at paragraph (d)(4) of this section.

(7) Check the analyzer response using the span gas that has the minimum concentration of $O_2$ expected during testing. Record the mean response of 30 seconds of stabilized sample data as $x_{O2minHC}$.

(8) Check the zero response of the FID analyzer using the zero gas used during emission testing. If the mean zero response of 30 seconds of stabilized sample data is within ±0.5% of the span reference value used in paragraph (d)(5) of this section, then proceed to the next step; otherwise restart the procedure at paragraph (d)(4) of this section.

(9) Check the analyzer response using the span gas that has the average concentration of $O_2$ expected during testing. Record the mean response of 30 seconds of stabilized sample data as $x_{O2avgHC}$.

(10) Check the zero response of the FID analyzer using the zero gas used during emission testing. If the mean zero response of 30 seconds of stabilized sample data is within ±0.5% of the span reference value used in paragraph (d)(5) of this section, proceed to the next step; otherwise restart the procedure at paragraph (d)(4) of this section.

(11) Check the analyzer response using the span gas that has the maximum concentration of $O_2$ expected during testing. Record the mean response of 30 seconds of stabilized sample data as $x_{O2maxHC}$.

(12) Check the zero response of the FID analyzer using the zero gas used during emission testing. If the mean zero response of 30 seconds of stabilized sample data is within ±0.5% of the span reference value used in paragraph (d)(5) of this section, then proceed to the next step; otherwise restart the procedure at paragraph (d)(4) of this section.

(13) Calculate the percent difference between $x_{O2maxHC}$ and its reference gas concentration. Calculate the percent difference between $x_{O2avgHC}$ and its reference gas concentration. Calculate the percent difference between $x_{O2minHC}$ and its reference gas concentration. Determine the maximum percent difference of the three. This is the $O_2$ interference.

(14) If the $O_2$ interference is within ±2%, the FID passes the $O_2$ interference verification; otherwise perform one or more of the following to address the deficiency:

(i) Repeat the verification to determine if a mistake was made during the procedure.

(ii) Select zero and span gases for emission testing that contain higher or lower $O_2$ concentrations and repeat the verification.

(iii) Adjust FID burner air, fuel, and sample flow rates. Note that if you adjust these flow rates on a THC FID to meet the $O_2$ interference verification, you have reset $RF_{CH4}$ for the next $RF_{CH4}$ verification according to § 1065.360. Repeat the $O_2$ interference verification after adjustment and determine $RF_{CH4}$.

(iv) Repair or replace the FID and repeat the $O_2$ interference verification.

(v) Demonstrate that the deficiency does not adversely affect your ability to demonstrate compliance with the applicable emission standards.

■ 87. Section 1065.365 is revised to read as follows:

**§ 1065.365 Nonmethane cutter penetration fractions.**

(a) *Scope and frequency.* If you use a FID analyzer and a nonmethane cutter (NMC) to measure methane ($CH_4$), determine the nonmethane cutter's penetration fractions of methane, $PF_{CH4}$, and ethane, $PF_{C2H6}$. As detailed in this section, these penetration fractions may be determined as a combination of NMC penetration fractions and FID analyzer response factors, depending on your particular NMC and FID analyzer configuration. Perform this verification after installing the nonmethane cutter. Repeat this verification within 185 days of testing to verify that the catalytic activity of the cutter has not deteriorated. Note that because nonmethane cutters can deteriorate rapidly and without warning if they are operated outside of certain ranges of gas concentrations and outside of certain temperature ranges, good engineering judgment may dictate that you determine a nonmethane cutter's penetration fractions more frequently.

(b) *Measurement principles.* A nonmethane cutter is a heated catalyst that removes nonmethane hydrocarbons from an exhaust sample stream before the FID analyzer measures the remaining hydrocarbon concentration. An ideal nonmethane cutter would have a methane penetration fraction, $PF_{CH4}$, of 1.000, and the penetration fraction for all other nonmethane hydrocarbons would be 0.000, as represented by $PF_{C2H6}$. The emission calculations in § 1065.660 use the measured values from this verification to account for less than ideal NMC performance.

(c) *System requirements.* We do not limit NMC penetration fractions to a certain range. However, we recommend that you optimize a nonmethane cutter by adjusting its temperature to achieve a $PF_{CH4} > 0.85$ and a $PF_{C2H6} < 0.02$, as determined by paragraphs (d), (e), or (f) of this section, as applicable. If we use a nonmethane cutter for testing, it will meet this recommendation. If adjusting NMC temperature does not result in achieving both of these specifications simultaneously, we recommend that you replace the catalyst material. Use the most recently determined penetration values from this section to calculate HC emissions according to § 1065.660 and § 1065.665 as applicable.

(d) *Procedure for a FID calibrated with the NMC.* The method described in this paragraph (d) is recommended over the procedures specified in paragraphs (e) and (f) of this section. If your FID arrangement is such that a FID is always calibrated to measure $CH_4$ with the NMC, then span that FID with the NMC using a $CH_4$ span gas, set the product of that FID's $CH_4$ response factor and $CH_4$ penetration fraction, $RFPF_{CH4[NMC-FID]}$, equal to 1.0 for all emission calculations, and determine its combined ethane ($C_2H_6$) response factor and penetration fraction, $RFPF_{C2H6[NMC-FID]}$ as follows:

(1) Select a $CH_4$ gas mixture and a $C_2H_6$ analytical gas mixture and ensure that both mixtures meet the specifications of § 1065.750. Select a $CH_4$ concentration that you would use for spanning the FID during emission testing and select a $C_2H_6$ concentration that is typical of the peak NMHC concentration expected at the hydrocarbon standard or equal to THC analyzer's span value.

(2) Start, operate, and optimize the nonmethane cutter according to the manufacturer's instructions, including any temperature optimization.

(3) Confirm that the FID analyzer meets all the specifications of § 1065.360.

(4) Start and operate the FID analyzer according to the manufacturer's instructions.

(5) Zero and span the FID with the cutter and use $CH_4$ span gas to span the FID with the cutter. Note that you must span the FID on a $C_1$ basis. For example, if your span gas has a $CH_4$ reference value of 100 µmol/mol, the correct FID response to that span gas is 100 µmol/mol because there is one carbon atom per $CH_4$ molecule.

(6) Introduce the $C_2H_6$ analytical gas mixture upstream of the nonmethane cutter.

(7) Allow time for the analyzer response to stabilize. Stabilization time may include time to purge the nonmethane cutter and to account for the analyzer's response.

(8) While the analyzer measures a stable concentration, record 30 seconds of sampled data. Calculate the arithmetic mean of these data points.

(9) Divide the mean by the reference value of $C_2H_6$, converted to a $C_1$ basis. The result is the $C_2H_6$ combined response factor and penetration fraction, $RFPF_{C2H6[NMC-FID]}$. Use this combined response factor and penetration fraction and the product of the $CH_4$ response factor and $CH_4$ penetration fraction, $RFPF_{CH4[NMC-FID]}$, set to 1.0 in emission calculations according to § 1065.660(b)(2)(i) or § 1065.665, as applicable.

(e) *Procedure for a FID calibrated with propane, bypassing the NMC.* If you use a FID with an NMC that is calibrated with propane, $C_3H_8$, by bypassing the NMC, determine its penetration fractions, $PF_{C2H6[NMC-FID]}$ and $PF_{CH4[NMC-FID]}$, as follows:

(1) Select $CH_4$ and $C_2H_6$ analytical gas mixtures that meet the specifications of § 1065.750 with the $CH_4$ concentration typical of its peak concentration expected at the hydrocarbon standard and the $C_2H_6$ concentration typical of the peak total hydrocarbon (THC) concentration expected at the hydrocarbon standard or the THC analyzer span value.

(2) Start and operate the nonmethane cutter according to the manufacturer's instructions, including any temperature optimization.

(3) Confirm that the FID analyzer meets all the specifications of § 1065.360.

(4) Start and operate the FID analyzer according to the manufacturer's instructions.

(5) Zero and span the FID as you would during emission testing. Span the FID by bypassing the cutter and by using $C_3H_8$ span gas to span the FID. Note that you must span the FID on a $C_1$ basis. For example, if your span gas has a propane reference value of 100 μmol/mol, the correct FID response to that span gas is 300 μmol/mol because there are three carbon atoms per $C_3H_8$ molecule.

(6) Introduce the $C_2H_6$ analytical gas mixture upstream of the nonmethane cutter at the same point the zero gas was introduced.

(7) Allow time for the analyzer response to stabilize. Stabilization time may include time to purge the nonmethane cutter and to account for the analyzer's response.

(8) While the analyzer measures a stable concentration, record 30 seconds of sampled data. Calculate the arithmetic mean of these data points.

(9) Reroute the flow path to bypass the nonmethane cutter, introduce the $C_2H_6$ analytical gas mixture to the bypass, and repeat the steps in paragraphs (e)(7) through (8) of this section.

(10) Divide the mean $C_2H_6$ concentration measured through the nonmethane cutter by the mean concentration measured after bypassing the nonmethane cutter. The result is the $C_2H_6$ penetration fraction, $PF_{C2H6[NMC-FID]}$. Use this penetration fraction according to § 1065.660(b)(2)(ii) or § 1065.665, as applicable.

(11) Repeat the steps in paragraphs (e)(6) through (10) of this section, but with the $CH_4$ analytical gas mixture instead of $C_2H_6$. The result will be the $CH_4$ penetration fraction, $PF_{CH4[NMC-FID]}$. Use this penetration fraction according to § 1065.660(b)(2)(ii) or § 1065.665, as applicable.

(f) *Procedure for a FID calibrated with methane, bypassing the NMC.* If you use a FID with an NMC that is calibrated with methane, $CH_4$, by bypassing the NMC, determine its combined ethane ($C_2H_6$) response factor and penetration fraction, $RFPF_{C2H6[NMC-FID]}$, as well as its $CH_4$ penetration fraction, $PF_{CH4[NMC-FID]}$, as follows:

(1) Select $CH_4$ and $C_2H_6$ analytical gas mixtures that meet the specifications of § 1065.750, with the $CH_4$ concentration typical of its peak concentration expected at the hydrocarbon standard and the $C_2H_6$ concentration typical of the peak total hydrocarbon (THC) concentration expected at the hydrocarbon standard or the THC analyzer span value.

(2) Start and operate the nonmethane cutter according to the manufacturer's instructions, including any temperature optimization.

(3) Confirm that the FID analyzer meets all the specifications of § 1065.360.

(4) Start and operate the FID analyzer according to the manufacturer's instructions.

(5) Zero and span the FID as you would during emission testing. Span the FID with $CH_4$ span gas by bypassing the cutter. Note that you must span the FID on a $C_1$ basis. For example, if your span gas has a methane reference value of 100 μmol/mol, the correct FID response to that span gas is 100 μmol/mol because there is one carbon atom per $CH_4$ molecule.

(6) Introduce the $C_2H_6$ analytical gas mixture upstream of the nonmethane cutter at the same point the zero gas was introduced.

(7) Allow time for the analyzer response to stabilize. Stabilization time may include time to purge the nonmethane cutter and to account for the analyzer's response.

(8) While the analyzer measures a stable concentration, record 30 seconds of sampled data. Calculate the arithmetic mean of these data points.

(9) Reroute the flow path to bypass the nonmethane cutter, introduce the $C_2H_6$ analytical gas mixture to the bypass, and repeat the steps in paragraphs (e)(7) and (8) of this section.

(10) Divide the mean $C_2H_6$ concentration measured through the nonmethane cutter by the mean concentration measured after bypassing the nonmethane cutter. The result is the $C_2H_6$ combined response factor and penetration fraction, $RFPF_{C2H6[NMC-FID]}$. Use this combined response factor and penetration fraction according to § 1065.660(b)(2)(iii) or § 1065.665, as applicable.

(11) Repeat the steps in paragraphs (e)(6) through (10) of this section, but with the $CH_4$ analytical gas mixture instead of $C_2H_6$. The result will be the $CH_4$ penetration fraction, $PF_{CH4[NMC-FID]}$. Use this penetration fraction according to § 1065.660(b)(2)(iii) or § 1065.665, as applicable.

■ 88. Section 1065.370 is amended by revising paragraphs (d), (e), and (g)(1) to read as follows:

**§ 1065.370 CLD $CO_2$ and $H_2O$ quench verification.**

* * * * *

(d) *$CO_2$ quench verification procedure.* Use the following method to determine $CO_2$ quench, or use good engineering judgment to develop a different protocol:

(1) Use PTFE or stainless steel tubing to make necessary connections.

(2) Connect a pressure-regulated $CO_2$ span gas to the port of a gas divider that meets the specifications in § 1065.248 at the appropriate time. Use a $CO_2$ span gas that meets the specifications of § 1065.750 and attempt to use a concentration that is approximately twice the maximum $CO_2$ concentration expected to enter the CLD sample port during testing, if available.

(3) Connect a pressure-regulated purified $N_2$ gas to the port of a gas divider that meets the specifications in § 1065.248 at the appropriate time. Use a purified $N_2$ gas that meets the specifications of § 1065.750.

(4) Connect a pressure-regulated NO span gas to the port of the gas divider that meets the specifications in § 1065.248. Use an NO span gas that meets the specifications of § 1065.750. Attempt to use an NO concentration that is approximately twice the maximum NO concentration expected during testing, if available.

(5) Configure the gas divider such that nearly equal amounts of the span gas and balance gas are blended with each other. Apply viscosity corrections as necessary to appropriately ensure correct gas division.

(6) While flowing NO and $CO_2$ through the gas divider, stabilize the $CO_2$ concentration downstream of the gas divider and measure the $CO_2$ concentration with an NDIR analyzer that has been prepared for emission testing. You may alternatively determine the $CO_2$ concentration from the gas divider cut-point, applying viscosity correction as necessary to ensure accurate gas division. Record this concentration, $x_{CO2meas}$, and use it in the quench verification calculations in § 1065.675.

(7) Measure the NO concentration downstream of the gas divider. If the CLD has an operating mode in which it detects NO-only, as opposed to total $NO_X$, operate the CLD in the NO-only

operating mode. Record this concentration, $x_{NO,CO2}$, and use it in the quench verification calculations in § 1065.675.

(8) Switch the flow of $CO_2$ off and start the flow of 100% purified $N_2$ to the inlet port of the gas divider. Monitor the $CO_2$ at the gas divider's outlet until its concentration stabilizes at zero.

(9) Measure NO concentration at the gas divider's outlet. Record this value, $x_{NO,N2}$, and use it in the quench verification calculations in § 1065.675.

(10) Use the values recorded according to this paragraph (d) of this section and paragraph (e) of this section to calculate quench as described in § 1065.675.

(e) *$H_2O$ quench verification procedure.* Use the following method to determine $H_2O$ quench, or use good engineering judgment to develop a different protocol:

(1) Use PTFE or stainless steel tubing to make necessary connections.

(2) If the CLD has an operating mode in which it detects NO-only, as opposed to total $NO_X$, operate the CLD in the NO-only operating mode.

(3) Measure an NO calibration span gas that meets the specifications of § 1065.750 and is near the maximum concentration expected during testing. Record this concentration, $x_{NOdry}$.

(4) Humidify the NO span gas by bubbling it through distilled water in a sealed vessel. If the sample is not passed through a dryer, control the vessel temperature to generate an $H_2O$ level at least as high as the maximum expected during testing. If the sample is passed through a dryer during testing, control the vessel temperature to generate an $H_2O$ level at least as high as the level determined in § 1065.145(d)(2). We recommend that you humidify the gas to the highest sample dewpoint that you estimate at the CLD inlet during emission sampling. Regardless of the humidity during this test, the quench verification calculations in § 1065.675 scale the recorded quench to the highest dewpoint expected for flow entering the CLD sample port during emission sampling.

(5) Introduce the humidified NO test gas into the sample system. You may introduce it downstream of any sample dryer, if one is used during testing.

(6) Measure the humidified gas dewpoint, $T_{dew}$, and pressure, $p_{total}$, as close as possible to the analyzer inlet.

(7) Downstream of the vessel, maintain the humidified NO test gas temperature at least 5 °C above its dewpoint.

(8) Allow time for the analyzer response to stabilize. Stabilization time may include time to purge the transfer line and to account for analyzer response.

(9) While the analyzer measures the sample's concentration, record the analyzer's output for 30 seconds. Calculate the arithmetic mean of these data. This mean is $x_{NOmeas}$.

(10) Set $x_{NOwet}$ equal to $x_{NOmeas}$ from paragraph (e)(9) of this section.

(11) Use $x_{NOwet}$ to calculate the quench according to § 1065.675.

* * * * *

(g) * * *

(1) You may omit this verification if you can show by engineering analysis that for your $NO_X$ sampling system and your emission calculations procedures, the combined $CO_2$ and $H_2O$ interference for your $NO_X$ CLD analyzer always affects your brake-specific $NO_X$ emission results within no more than ±1.0% of the applicable $NO_X$ standard.

* * * * *

■ 89. Section 1065.372 is amended by revising paragraphs (d)(7) and (e)(1) to read as follows:

**§ 1065.372 NDUV analyzer HC and $H_2O$ interference verification.**

* * * * *

(d) * * *

(7) Multiply this difference by the ratio of the flow-weighted mean HC concentration expected at the standard to the HC concentration measured during the verification. The analyzer meets the interference verification of this section if this result is within ±2% of the $NO_X$ concentration expected at the standard.

(e) * * *

(1) You may omit this verification if you can show by engineering analysis that for your $NO_X$ sampling system and your emission calculations procedures, the combined HC and $H_2O$ interference for your $NO_X$ NDUV analyzer always affects your brake-specific $NO_X$ emission results by less than 0.5% of the applicable $NO_X$ standard.

* * * * *

■ 90. Section 1065.376 is revised to read as follows:

**§ 1065.376 Chiller $NO_2$ penetration.**

(a) *Scope and frequency.* If you use a chiller to dry a sample upstream of a $NO_X$ measurement instrument, but you don't use an $NO_2$-to-NO converter upstream of the chiller, you must perform this verification for chiller $NO_2$ penetration. Perform this verification after initial installation and after major maintenance.

(b) *Measurement principles.* A chiller removes water, which can otherwise interfere with a $NO_X$ measurement. However, liquid water remaining in an improperly designed chiller can remove $NO_2$ from the sample. If a chiller is used without an $NO_2$-to-NO converter upstream, it could remove $NO_2$ from the sample prior $NO_X$ measurement.

(c) *System requirements.* A chiller must allow for measuring at least 95% of the total $NO_2$ at the maximum expected concentration of $NO_2$.

(d) *Procedure.* Use the following procedure to verify chiller performance:

(1) *Instrument setup.* Follow the analyzer and chiller manufacturers' start-up and operating instructions. Adjust the analyzer and chiller as needed to optimize performance.

(2) *Equipment setup and data collection.* (i) Zero and span the total $NO_X$ gas analyzer(s) as you would before emission testing.

(ii) Select an $NO_2$ calibration gas, balance gas of dry air, that has an $NO_2$ concentration within ±5% of the maximum $NO_2$ concentration expected during testing.

(iii) Overflow this calibration gas at the gas sampling system's probe or overflow fitting. Allow for stabilization of the total $NO_X$ response, accounting only for transport delays and instrument response.

(iv) Calculate the mean of 30 seconds of recorded total $NO_X$ data and record this value as $x_{NOXref.}$

(v) Stop flowing the $NO_2$ calibration gas.

(vi) Next saturate the sampling system by overflowing a dewpoint generator's output, set at a dewpoint of 50 °C, to the gas sampling system's probe or overflow fitting. Sample the dewpoint generator's output through the sampling system and chiller for at least 10 minutes until the chiller is expected to be removing a constant rate of water.

(vii) Immediately switch back to overflowing the $NO_2$ calibration gas used to establish $x_{NOxref.}$ Allow for stabilization of the total $NO_X$ response, accounting only for transport delays and instrument response. Calculate the mean of 30 seconds of recorded total $NO_X$ data and record this value as $x_{NOxmeas}$.

(viii) Correct $x_{NOxmeas}$ to $x_{NOxdry}$ based upon the residual water vapor that passed through the chiller at the chiller's outlet temperature and pressure.

(3) *Performance evaluation.* If $x_{NOxdry}$ is less than 95% of $x_{NOxref}$, repair or replace the chiller.

(e) *Exceptions.* The following exceptions apply:

(1) You may omit this verification if you can show by engineering analysis that for your $NO_X$ sampling system and your emission calculations procedures, the chiller always affects your brake-

specific $NO_X$ emission results by less than 0.5% of the applicable $NO_X$ standard.

(2) You may use a chiller that you determine does not meet this verification, as long as you try to correct the problem and the measurement deficiency does not adversely affect your ability to show that engines comply with all applicable emission standards.

■ 91. Section 1065.378 is amended by revising paragraphs (d) and (e)(1) to read as follows:

**§ 1065.378 $NO_2$-to-NO converter conversion verification.**

* * * * *

(d) *Procedure.* Use the following procedure to verify the performance of a $NO_2$-to-NO converter:

(1) *Instrument setup.* Follow the analyzer and $NO_2$-to-NO converter manufacturers' start-up and operating instructions. Adjust the analyzer and converter as needed to optimize performance.

(2) *Equipment setup.* Connect an ozonator's inlet to a zero-air or oxygen source and connect its outlet to one port of a three-way tee fitting. Connect an NO span gas to another port, and connect the $NO_2$-to-NO converter inlet to the last port.

(3) *Adjustments and data collection.* Perform this check as follows:

(i) Set ozonator air off, turn ozonator power off, and set the analyzer to NO mode. Allow for stabilization, accounting only for transport delays and instrument response.

(ii) Use an NO concentration that is representative of the peak total $NO_X$ concentration expected during testing. The $NO_2$ content of the gas mixture shall be less than 5% of the NO concentration. Record the concentration of NO by calculating the mean of 30 seconds of sampled data from the analyzer and record this value as $x_{NOref}$.

(iii) Turn on the ozonator $O_2$ supply and adjust the $O_2$ flow rate so the NO indicated by the analyzer is about 10 percent less than $x_{NOref}$. Record the concentration of NO by calculating the mean of 30 seconds of sampled data from the analyzer and record this value as $x_{NO+O2mix}$.

(iv) Switch the ozonator on and adjust the ozone generation rate so the NO measured by the analyzer is 20 percent of $x_{NOref}$, while maintaining at least 10 percent unreacted NO. Record the concentration of NO by calculating the mean of 30 seconds of sampled data from the analyzer and record this value as $x_{NOmeas}$.

(v) Switch the $NO_X$ analyzer to $NO_X$ mode and measure total $NO_X$. Record the concentration of $NO_X$ by calculating the mean of 30 seconds of sampled data from the analyzer and record this value as $x_{NOxmeas}$.

(vi) Switch off the ozonator but maintain gas flow through the system. The $NO_X$ analyzer will indicate the $NO_X$ in the NO + $O_2$ mixture. Record the concentration of $NO_X$ by calculating the mean of 30 seconds of sampled data from the analyzer and record this value as $x_{NOx+O2mix}$.

(vii) Turn off the ozonator $O_2$ supply. The $NO_X$ analyzer will indicate the $NO_X$ in the original NO-in-$N_2$ mixture. Record the concentration of $NO_X$ by calculating the mean of 30 seconds of sampled data from the analyzer and record this value as $x_{NOxref}$. This value should be no more than 5 percent above the $x_{NOref}$ value.

(4) *Performance evaluation.* Calculate the efficiency of the $NO_X$ converter efficiency by substituting the concentrations obtained into the following equation:

$$Efficiency\ (\%) = \left(1 + \frac{x_{NOxmeas} - x_{NOx+O2mix}}{x_{NO+O2mix} - x_{NOmeas}}\right) \times 100$$

(5) If the result is less than 95%, repair or replace the $NO_2$-to-NO converter.

(e) * * *

(1) You may omit this verification if you can show by engineering analysis that for your $NO_X$ sampling system and your emission calculations procedures, the converter always affects your brake-specific $NO_X$ emission results by less than 0.5% of the applicable $NO_X$ standard.

* * * * *

■ 92. Section 1065.390 is revised to read as follows:

**§ 1065.390 PM balance verifications and weighing process verification.**

(a) *Scope and frequency.* This section describes three verifications.

(1) Independent verification of PM balance performance within 370 days before weighing any filter.

(2) Zero and span the balance within 12 h before weighing any filter.

(3) Verify that the mass determination of reference filters before and after a filter weighing session are less than a specified tolerance.

(b) *Independent verification.* Have the balance manufacturer (or a representative approved by the balance manufacturer) verify the balance performance within 370 days of testing.

(c) *Zeroing and spanning.* You must verify balance performance by zeroing and spanning it with at least one calibration weight, and any weights you use must that meet the specifications in § 1065.790 to perform this verification.

(1) Use a manual procedure in which you zero the balance and span the balance with at least one calibration weight. If you normally use mean values by repeating the weighing process to improve the accuracy and precision of PM measurements, use the same process to verify balance performance.

(2) You may use an automated procedure to verify balance performance. For example many balances have internal calibration weights that are used automatically to verify balance performance. Note that if you use internal balance weights, the weights must meet the specifications in § 1065.790 to perform this verification.

(d) *Reference sample weighing.* Verify all mass readings during a weighing session by weighing reference PM sample media (e.g., filters) before and after a weighing session. A weighing session may be as short as desired, but no longer than 80 hours, and may include both pre-test and post-test mass readings. We recommend that weighing sessions be eight hours or less. Successive mass determinations of each reference PM sample media (e.g., filter) must return the same value within ±10 μg or ±10% of the net PM mass expected at the standard (if known), whichever is higher. If successive reference PM sample media (e.g., filter) weighing events fail this criterion, invalidate all individual test media (e.g., filter) mass readings occurring between the successive reference media (e.g., filter) mass determinations. You may reweigh these media (e.g., filter) in another weighing session. If you invalidate a pre-test media (e.g., filter) mass determination, that test interval is void. Perform this verification as follows:

(1) Keep at least two samples of unused PM sample media (e.g., filters) in the PM-stabilization environment. Use these as references. If you collect

PM with filters, select unused filters of the same material and size for use as references. You may periodically replace references, using good engineering judgment.

(2) Stabilize references in the PM stabilization environment. Consider references stabilized if they have been in the PM-stabilization environment for a minimum of 30 min, and the PM-stabilization environment has been within the specifications of § 1065.190(d) for at least the preceding 60 min.

(3) Exercise the balance several times with a reference sample. We recommend weighing ten samples without recording the values.

(4) Zero and span the balance. Using good engineering judgment, place a test mass such as a calibration weight on the balance, then remove it. After spanning, confirm that the balance returns to a zero reading within the normal stabilization time.

(5) Weigh each of the reference media (e.g., filters) and record their masses. We recommend using substitution weighing as described in § 1065.590(j). If you normally use mean values by repeating the weighing process to improve the accuracy and precision of the reference media (e.g., filter) mass, you must use mean values of sample media (e.g., filter) masses.

(6) Record the balance environment dewpoint, ambient temperature, and atmospheric pressure.

(7) Use the recorded ambient conditions to correct results for buoyancy as described in § 1065.690. Record the buoyancy-corrected mass of each of the references.

(8) Subtract each reference media's (e.g., filter's) buoyancy-corrected reference mass from its previously measured and recorded buoyancy-corrected mass.

(9) If any of the reference filters' observed mass changes by more than that allowed under this paragraph, you must invalidate all PM mass determinations made since the last successful reference media (e.g., filter) mass validation. You may discard reference PM media (e.g., filters) if only one one of the filter's mass changes by more than the allowable amount and you can positively identify a special cause for that filter's mass change that would not have affected other in-process filters. Thus, the validation can be considered a success. In this case, you do not have to include the contaminated reference media when determining compliance with paragraph (d)(10) of this section, but the affected reference filter must be immediately discarded and replaced prior to the next weighing session.

(10) If any of the reference masses change by more than that allowed under this paragraph (d), invalidate all PM results that were determined between the two times that the reference masses were determined. If you discarded reference PM sample media according to paragraph (d)(9) of this section, you must still have at least one reference mass difference that meets the criteria in this paragraph (d). Otherwise, you must invalidate all PM results that were determined between the two times that the reference media (e.g., filters) masses were determined.

## Subpart E—[Amended]

■ 93. Section 1065.405 is revised to read as follows:

### § 1065.405 Test engine preparation and maintenance.

This part 1065 describes how to test engines for a variety of purposes, including certification testing, production-line testing, and in-use testing. Depending on which type of testing is being conducted, different preparation and maintenance requirements apply for the test engine.

(a) If you are testing an emission-data engine for certification, make sure it is built to represent production engines. This includes governors that you normally install on production engines. Production engines should also be tested with their installed governors. If you do not install governors on production engines, simulate a governor that is representative of a governor that others will install on your production engines.

(b) Testing generally occurs only after the test engine has undergone a stabilization step (or in-use operation). If the engine has not already been stabilized, run the test engine, with all emission control systems operating, long enough to stabilize emission levels. Note that you must generally use the same stabilization procedures for emission-data engines for which you apply the same deterioration factors so low-hour emission-data engines are consistent with the low-hour engine used to develop the deterioration factor.

(1) Unless otherwise specified in the standard-setting part, you may consider emission levels stable without measurement after 50 h of operation. If the engine needs less operation to stabilize emission levels, record your reasons and the methods for doing this, and give us these records if we ask for them. If the engine will be tested for certification as a low-hour engine, see the standard-setting part for limits on testing engines to establish low-hour emission levels.

(2) You may stabilize emissions from a catalytic exhaust aftertreatment device by operating it on a different engine, consistent with good engineering judgment. Note that good engineering judgment requires that you consider both the purpose of the test and how your stabilization method will affect the development and application of deterioration factors. For example, this method of stabilization is generally not appropriate for production engines. We may also allow you to stabilize emissions from a catalytic exhaust aftertreatment device by operating it on an engine-exhaust simulator.

(c) Record any maintenance, modifications, parts changes, diagnostic or emissions testing and document the need for each event. You must provide this information if we request it.

(d) For accumulating operating hours on your test engines, select engine operation that represents normal in-use operation for the engine family.

(e) If your engine will be used in a vehicle equipped with a canister for storing evaporative hydrocarbons for eventual combustion in the engine and the test sequence involves a cold-start or hot-start duty cycle, attach a canister to the engine before running an emission test. You may omit using an evaporative canister for any hot-stabilized duty cycles. You may request to omit using an evaporative canister during testing if you can show that it would not affect your ability to show compliance with the applicable emission standards. You may operate the engine without an installed canister for service accumulation. Prior to an emission test, use the following steps to attach a canister to your engine:

(1) Use a canister and plumbing arrangement that represents the in-use configuration of the largest capacity canister in all expected applications.

(2) Use a canister that is fully loaded with fuel vapors.

(3) Connect the canister's purge port to the engine.

(4) Plug the canister port that is normally connected to the fuel tank.

■ 94. Section 1065.410 is amended by revising paragraphs (c) and (d) to read as follows:

### § 1065.410 Maintenance limits for stabilized test engines.

* * * * *

(c) Keep a record of the inspection and update your application to document any changes as a result of the inspection. You may use equipment, instruments, or engineering grade tools

to identify bad engine components. Any equipment, instruments, or tools used for scheduled maintenance on emission data engines must be representative of what is planned to be available to dealerships and other service outlets.

(d) If we determine that a part failure, system malfunction, or associated repairs have made the engine's emission controls unrepresentative of production engines, you may no longer use it as an emission-data engine. Also, if your test engine has a major mechanical failure that requires you to take it apart, you may no longer use it as an emission-data engine.

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■ 95. Section 1065.415 is amended by revising the introductory text and removing paragraph (a)(3) to read as follows:

**§ 1065.415 Durability demonstration.**

If the standard-setting part requires durability testing, you must accumulate service in a way that represents how you expect the engine to operate in use. You may accumulate service hours using an accelerated schedule, such as through continuous operation or by using duty cycles that are more aggressive than in-use operation, subject to any pre-approval requirements established in the applicable standard-setting part.

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■ 96. The heading to subpart F of part 1065 is revised to read as follows:

## Subpart F—Performing an Emission Test Over Specified Duty Cycles

97. Section 1065.501 is amended by revising paragraphs (a) introductory text, (a)(1), and (b) to read as follows:

**§ 1065.501 Overview.**

(a) Use the procedures detailed in this subpart to measure engine emissions over a specified duty cycle. Refer to subpart J of this part for field test procedures that describe how to measure emissions during in-use engine operation. This section describes how to:

(1) Map your engine, if applicable, by recording specified speed and torque data, as measured from the engine's primary output shaft.

* * * * *

(b) An emission test generally consists of measuring emissions and other parameters while an engine follows one or more duty cycles that are specified in the standard-setting part. There are two general types of duty cycles:

(1) *Transient cycles.* Transient duty cycles are typically specified in the standard-setting part as a second-by-second sequence of speed commands and normalized torque (or power) commands. Operate an engine over a transient cycle such that the speed and torque of the engine's primary output shaft follows the target values. Proportionally sample emissions and other parameters and use the calculations in subpart G of this part to calculate emissions. Start a transient test according to the standard-setting part, as follows:

(i) A cold-start transient cycle where you start to measure emissions just before starting an engine that has not been warmed up.

(ii) A hot-start transient cycle where you start to measure emissions just before starting a warmed-up engine.

(iii) A hot running transient cycle where you start to measure emissions after an engine is started, warmed up, and running.

(2) *Steady-state cycles.* Steady-state duty cycles are typically specified in the standard-setting part as a list of discrete operating points (modes or notches), where each operating point has one value of a normalized speed command and one value of a normalized torque (or power) command. Ramped-modal cycles for steady-state testing also list test times for each mode and transition times between modes where speed and torque are linearly ramped between modes, even for cycles with % power. Start a steady-state cycle as a hot running test, where you start to measure emissions after an engine is started, warmed up and running. You may run a steady-state duty cycle as a discrete-mode cycle or a ramped-modal cycle, as follows:

(i) *Discrete-mode cycles.* Before emission sampling, stabilize an engine at the first discrete mode. Sample emissions and other parameters for that mode and then stop emission sampling. Record mean values for that mode, and then stabilize the engine at the next mode. Continue to sample each mode discretely and calculate weighted emission results according to the standard-setting part.

(ii) *Ramped-modal cycles.* Perform ramped-modal cycles similar to the way you would perform transient cycles, except that ramped-modal cycles involve mostly steady-state engine operation. Generate a ramped-modal duty cycle as a sequence of second-by-second (1 Hz) reference speed and torque points. Run the ramped-modal duty cycle in the same manner as a transient cycle and use the 1 Hz reference speed and torque values to validate the cycle, even for cycles with % power. Proportionally sample emissions and other parameters during the cycle and use the calculations in subpart G of this part to calculate emissions.

* * * * *

■ 98. Section 1065.510 is revised to read as follows:

**§ 1065.510 Engine mapping.**

(a) *Applicability, scope, and frequency.* An engine map is a data set that consists of a series of paired data points that represent the maximum brake torque versus engine speed, measured at the engine's primary output shaft. Map your engine if the standard-setting part requires engine mapping to generate a duty cycle for your engine configuration. Map your engine while it is connected to a dynamometer or other device that can absorb work output from the engine's primary output shaft according to § 1065.110. Configure any auxiliary work inputs and outputs such as hybrid, turbo-compounding, or thermoelectric systems to represent their in-use configurations, and use the same configuration for emission testing. See Figure 1 of § 1065.210. This may involve configuring initial states of charge and rates and times of auxiliary-work inputs and outputs. We recommend that you contact the Designated Compliance Officer before testing to determine how you should configure any auxiliary-work inputs and outputs. Use the most recent engine map to transform a normalized duty cycle from the standard-setting part to a reference duty cycle specific to your engine. Normalized duty cycles are specified in the standard-setting part. You may update an engine map at any time by repeating the engine-mapping procedure. You must map or re-map an engine before a test if any of the following apply:

(1) If you have not performed an initial engine map.

(2) If the atmospheric pressure near the engine's air inlet is not within ± 5 kPa of the atmospheric pressure recorded at the time of the last engine map.

(3) If the engine or emission-control system has undergone changes that might affect maximum torque performance. This includes changing the configuration of auxiliary work inputs and outputs.

(4) If you capture an incomplete map on your first attempt or you do not complete a map within the specified time tolerance. You may repeat mapping as often as necessary to capture a complete map within the specified time.

(b) *Mapping variable-speed engines.* Map variable-speed engines as follows:

(1) Record the atmospheric pressure.

(2) Warm up the engine by operating it. We recommend operating the engine at any speed and at approximately 75% of its expected maximum power. Continue the warm-up until the engine coolant, block, or head absolute temperature is within ± 2% of its mean value for at least 2 min or until the engine thermostat controls engine temperature.

(3) Operate the engine at its warm idle speed.

(i) For engines with a low-speed governor, set the operator demand to minimum, use the dynamometer or other loading device to target a torque of zero on the engine's primary output shaft, and allow the engine to govern the speed. Measure this warm idle speed; we recommend recording at least 30 values of speed and using the mean of those values.

(ii) For engines without a low-speed governor, set the dynamometer to target a torque of zero on the engine's primary output shaft, and manipulate the operator demand to control the speed to target the manufacturer-declared value for the lowest engine speed possible with minimum load (also known as manufacturer-declared warm idle speed).

(iii) For all variable-speed engines (with or without a low-speed governor), if a nonzero idle torque is representative of in-use operation, you may target the manufacturer-declared idle torque. If you measure the warm idle speed with the manufacturer-declared torque at this step, you may omit the speed measurement in paragraph (b)(6) of this section.

(4) Set operator demand to maximum and control engine speed at (95 ± 1) % of its warm idle speed determined above for at least 15 seconds. For engines with reference duty cycles whose lowest speed is greater than warm idle speed, you may start the map at (95 ± 1) % of the lowest reference speed.

(5) Perform one of the following:

(i) For any engine subject only to steady-state duty cycles (i.e., discrete-mode or ramped-modal), you may perform an engine map by using discrete speeds. Select at least 20 evenly spaced setpoints between warm idle and the highest speed above maximum mapped power at which (50 to 75)% of maximum power occurs. If this highest speed is unsafe or unrepresentative (e.g., for ungoverned engines), use good engineering judgment to map up to the maximum safe speed or the maximum representative speed. At each setpoint, stabilize speed and allow torque to stabilize. Record the mean speed and torque at each setpoint. We recommend that you stabilize an engine for at least 15 seconds at each setpoint and record the mean feedback speed and torque of the last (4 to 6) seconds. Use linear interpolation to determine intermediate speeds and torques. Use this series of speeds and torques to generate the power map as described in paragraph (e) of this section.

(ii) For any variable-speed engine, you may perform an engine map by using a continuous sweep of speed by continuing to record the mean feedback speed and torque at 1 Hz or more frequently and increasing speed at a constant rate such that it takes (4 to 6) min to sweep from 95% of warm idle to the highest speed above maximum power at which (50 to 75)% of maximum power occurs. If this highest speed is unsafe or unrepresentative (e.g., for ungoverned engines), use good engineering judgment to map up to the maximum safe speed or the maximum representative speed. Stop recording after you complete the sweep. From the series of mean speed and maximum torque values, use linear interpolation to determine intermediate values. Use this series of speeds and torques to generate the power map as described in paragraph (e) of this section.

(6) For engines with a low-speed governor, if a nonzero idle torque is representative of in-use operation, operate the engine at warm idle with the manufacturer-declared idle torque. Set the operator demand to minimum, use the dynamometer to target the declared idle torque, and allow the engine to govern the speed. Measure this speed and use it as the warm idle speed for cycle generation in § 1065.512. We recommend recording at least 30 values of speed and using the mean of those values. You may map the idle governor at multiple load levels and use this map to determine the measured warm idle speed at the declared idle torque.

(c) *Negative torque mapping.* If your engine is subject to a reference duty cycle that specifies negative torque values (i.e., engine motoring), generate a motoring map by any of the following procedures:

(1) Multiply the positive torques from your map by −40%. Use linear interpolation to determine intermediate values.

(2) Map the amount of negative torque required to motor the engine by repeating paragraph (b) of this section with minimum operator demand.

(3) Determine the amount of negative torque required to motor the engine at the following two points near the ends of the engine's speed range. Operate the engine at these two points at minimum operator demand. Use linear interpolation to determine intermediate values.

(i) *Low-speed point.* For engines without a low-speed governor, determine the amount of negative torque at warm idle speed. For engines with a low-speed governor, motor the engine above warm idle speed so the governor is inactive and determine the amount of negative torque at that speed.

(ii) *High-speed point.* For engines without a high-speed governor, determine the amount of negative torque at the maximum safe speed or the maximum representative speed. For engines with a high-speed governor, determine the amount of negative torque at a speed at or above $n_{hi}$ per § 1065.610(c)(2).

(d) *Mapping constant-speed engines.* For constant-speed engines, generate a map as follows:

(1) Record the atmospheric pressure.

(2) Warm up the engine by operating it. We recommend operating the engine at approximately 75% of the engine's expected maximum power. Continue the warm-up until the engine coolant, block, or head absolute temperature is within ±2% of its mean value for at least 2 min or until the engine thermostat controls engine temperature.

(3) You may operate the engine with a production constant-speed governor or simulate a constant-speed governor by controlling engine speed with an operator demand control system described in § 1065.110. Use either isochronous or speed-droop governor operation, as appropriate.

(4) With the governor or simulated governor controlling speed using operator demand, operate the engine at no-load governed speed (at high speed, not low idle) for at least 15 seconds.

(5) Record at 1 Hz the mean of feedback speed and torque. Use the dynamometer to increase torque at a constant rate. Unless the standard-setting part specifies otherwise, complete the map such that it takes (2 to 4) min to sweep from no-load governed speed to the lowest speed below maximum mapped power at which the engine develops (85–95)% of maximum mapped power. You may map your engine to lower speeds. Stop recording after you complete the sweep. Use this series of speeds and torques to generate the power map as described in paragraph (e) of this section.

(e) *Power mapping.* For all engines, create a power-versus-speed map by transforming torque and speed values to corresponding power values. Use the mean values from the recorded map data. Do not use any interpolated values. Multiply each torque by its corresponding speed and apply the

appropriate conversion factors to arrive at units of power (kW). Interpolate intermediate power values between these power values, which were calculated from the recorded map data.

(f) *Measured and declared test speeds and torques.* You must select test speeds and torques for cycle generation as required in this paragraph (f). ''Measured'' values are either directly measured during the engine mapping process or they are determined from the engine map. ''Declared'' values are specified by the manufacturer. When both measured and declared values are available, you may use declared test speeds and torques instead of measured speeds and torques if they meet the criteria in this paragraph (f). Otherwise, you must use measured speeds and torques derived from the engine map.

(1) *Measured speeds and torques.* Determine the applicable speeds and torques for the duty cycles you will run:

(i) Measured maximum test speed for variable-speed engines according to § 1065.610.

(ii) Measured maximum test torque for constant-speed engines according to § 1065.610.

(iii) Measured ''A'', ''B'', and ''C'' speeds for variable-speed engines according to § 1065.610.

(iv) Measured intermediate speed for variable-speed engines according to § 1065.610.

(v) For variable-speed engines with a low-speed governor, measure warm idle speed according to § 1065.510(b) and use this speed for cycle generation in § 1065.512. For engines with no low-speed governor, instead use the manufacturer-declared warm idle speed.

(2) *Required declared speeds.* You must declare the lowest engine speed possible with minimum load (i.e., manufacturer-declared warm idle speed). This is applicable only to variable-speed engines with no low-speed governor. For engines with no low-speed governor, the declared warm idle speed is used for cycle generation in § 1065.512. Declare this speed in a way that is representative of in-use operation. For example, if your engine is typically connected to an automatic transmission or a hydrostatic transmission, declare this speed at the idle speed at which your engine operates when the transmission is engaged.

(3) *Optional declared speeds.* You may use declared speeds instead of measured speeds as follows:

(i) You may use a declared value for maximum test speed for variable-speed engines if it is within (97.5 to 102.5)% of the corresponding measured value. You may use a higher declared speed if the length of the ''vector'' at the declared speed is within 2.0% of the length of the ''vector'' at the measured value. The term vector refers to the square root of the sum of normalized engine speed squared and the normalized full-load power (at that speed) squared, consistent with the calculations in § 1065.610.

(ii) You may use a declared value for intermediate, ''A'', ''B'', or ''C'' speeds for steady-state tests if the declared value is within (97.5 to 102.5)% of the corresponding measured value.

(4) *Required declared torques.* If a nonzero idle or minimum torque is representative of in-use operation, you must declare the appropriate torque as follows:

(i) For variable-speed engines, declare a warm idle torque that is representative of in-use operation. For example, if your engine is typically connected to an automatic transmission or a hydrostatic transmission, declare the torque that occurs at the idle speed at which your engine operates when the transmission is engaged. Use this value for cycle generation. You may use multiple warm idle torques and associated idle speeds in cycle generation for representative testing. For example, for cycles that start the engine and begin with idle, you may start a cycle in idle with the transmission in neutral with zero torque and later switch to a different idle with the transmission in drive with the Curb-Idle Transmission Torque (CITT). For variable-speed engines intended primarily for propulsion of a vehicle with an automatic transmission where that engine is subject to a transient duty cycle with idle operation, you must declare a CITT. You must specify a CITT based on typical applications at the mean of the range of idle speeds you specify at stabilized temperature conditions.

(ii) For constant-speed engines, declare a warm minimum torque that is representative of in-use operation. For example, if your engine is typically connected to a machine that does not operate below a certain minimum torque, declare this torque and use it for cycle generation.

(5) *Optional declared torques.* For constant-speed engines you may declare a maximum test torque. You may use the declared value for cycle generation if it is within (95 to 100)% of the measured value.

(g) *Other mapping procedures.* You may use other mapping procedures if you believe the procedures specified in this section are unsafe or unrepresentative for your engine. Any alternate techniques you use must satisfy the intent of the specified mapping procedures, which is to determine the maximum available torque at all engine speeds that occur during a duty cycle. Identify any deviations from this section's mapping procedures when you submit data to us.

■ 99. Section 1065.512 is revised to read as follows:

**§ 1065.512 Duty cycle generation.**

(a) Generate duty cycles according to this section if the standard-setting part requires engine mapping to generate a duty cycle for your engine configuration. The standard-setting part generally defines applicable duty cycles in a normalized format. A normalized duty cycle consists of a sequence of paired values for speed and torque or for speed and power.

(b) Transform normalized values of speed, torque, and power using the following conventions:

(1) *Engine speed for variable-speed engines.* For variable-speed engines, normalized speed may be expressed as a percentage between warm idle speed, $f_{nidle}$, and maximum test speed, $f_{ntest}$, or speed may be expressed by referring to a defined speed by name, such as ''warm idle,'' ''intermediate speed,'' or ''A,'' ''B,'' or ''C'' speed. Section 1065.610 describes how to transform these normalized values into a sequence of reference speeds, $f_{nref}$. Running duty cycles with negative or small normalized speed values near warm idle speed may cause low-speed idle governors to activate and the engine torque to exceed the reference torque even though the operator demand is at a minimum. In such cases, we recommend controlling the dynamometer so it gives priority to follow the reference torque instead of the reference speed and let the engine govern the speed. Note that the cycle-validation criteria in § 1065.514 allow an engine to govern itself. This allowance permits you to test engines with enhanced-idle devices and to simulate the effects of transmissions such as automatic transmissions. For example, an enhanced-idle device might be an idle speed value that is normally commanded only under cold-start conditions to quickly warm up the engine and aftertreatment devices. In this case, negative and very low normalized speeds will generate reference speeds below this higher enhanced idle speed and we recommend controlling the dynamometer so it gives priority to follow the reference torque, controlling the operator demand so it gives priority to follow reference speed and let the engine govern the speed when the operator demand is at minimum.

(2) *Engine torque for variable-speed engines.* For variable-speed engines, normalized torque is expressed as a percentage of the mapped torque at the corresponding reference speed. Section 1065.610 describes how to transform normalized torques into a sequence of reference torques, $T_{ref}$. Section 1065.610 also describes special requirements for modifying transient duty cycles for variable-speed engines intended primarily for propulsion of a vehicle with an automatic transmission. Section 1065.610 also describes under what conditions you may command $T_{ref}$ greater than the reference torque you calculated from a normalized duty cycle. This provision permits you to command $T_{ref}$ values that are limited by a declared minimum torque. For any negative torque commands, command minimum operator demand and use the dynamometer to control engine speed to the reference speed, but if reference speed is so low that the idle governor activates, we recommend using the dynamometer to control torque to zero, CITT, or a declared minimum torque as appropriate. Note that you may omit power and torque points during motoring from the cycle-validation criteria in § 1065.514. Also, use the maximum mapped torque at the minimum mapped speed as the maximum torque for any reference speed at or below the minimum mapped speed.

(3) *Engine torque for constant-speed engines.* For constant-speed engines, normalized torque is expressed as a percentage of maximum test torque, $T_{test}$. Section 1065.610 describes how to transform normalized torques into a sequence of reference torques, $T_{ref}$. Section 1065.610 also describes under what conditions you may command $T_{ref}$ greater than the reference torque you calculated from the normalized duty cycle. This provision permits you to command $T_{ref}$ values that are limited by a declared minimum torque.

(4) *Engine power.* For all engines, normalized power is expressed as a percentage of mapped power at maximum test speed, $f_{ntest}$, unless otherwise specified by the standard-setting part. Section 1065.610 describes how to transform these normalized values into a sequence of reference powers, $P_{ref}$. Convert these reference powers to corresponding torques for operator demand and dynamometer control. Use the reference speed associated with each reference power point for this conversion. As with cycles specified with % torque, issue torque commands more frequently and linearly interpolate between these reference torque values generated from cycles with % power.

(5) *Ramped-modal cycles.* For ramped modal cycles, generate reference speed and torque values at 1 Hz and use this sequence of points to run the cycle and validate it in the same manner as with a transient cycle. During the transition between modes, linearly ramp the denormalized reference speed and torque values between modes to generate reference points at 1 Hz. Do not linearly ramp the normalized reference torque values between modes and then denormalize them. Do not linearly ramp normalized or denormalized reference power points. These cases will produce nonlinear torque ramps in the denormalized reference torques. If the speed and torque ramp runs through a point above the engine's torque curve, continue to command the reference torques and allow the operator demand to go to maximum. Note that you may omit power and either torque or speed points from the cycle-validation criteria under these conditions as specified in § 1065.514.

(c) For variable-speed engines, command reference speeds and torques sequentially to perform a duty cycle. Issue speed and torque commands at a frequency of at least 5 Hz for transient cycles and at least 1 Hz for steady-state cycles (i.e., discrete-mode and ramped-modal). Linearly interpolate between the 1 Hz reference values specified in the standard-setting part to determine more frequently issued reference speeds and torques. During an emission test, record the feedback speeds and torques at a frequency of at least 5 Hz for transient cycles and at least 1 Hz for steady-state cycles. For transient cycles, you may record the feedback speeds and torques at lower frequencies (as low as 1 Hz) if you record the average value over the time interval between recorded values. Calculate the average values based on feedback values updated at a frequency of at least 5 Hz. Use these recorded values to calculate cycle-validation statistics and total work.

(d) For constant-speed engines, operate the engine with the same production governor you used to map the engine in § 1065.510 or simulate the in-use operation of a governor the same way you simulated it to map the engine in § 1065.510. Command reference torque values sequentially to perform a duty cycle. Issue torque commands at a frequency of at least 5 Hz for transient cycles and at least 1 Hz for steady-state cycles (i.e., discrete-mode, ramped-modal). Linearly interpolate between the 1 Hz reference values specified in the standard-setting part to determine more frequently issued reference torque values. During an emission test, record the feedback speeds and torques at a frequency of at least 5 Hz for transient cycles and at least 1 Hz for steady-state cycles. For transient cycles, you may record the feedback speeds and torques at lower frequencies (as low as 1 Hz) if you record the average value over the time interval between recorded values. Calculate the average values based on feedback values updated at a frequency of at least 5 Hz. Use these recorded values to calculate cycle-validation statistics and total work.

(e) You may perform practice duty cycles with the test engine to optimize operator demand and dynamometer controls to meet the cycle-validation criteria specified in § 1065.514.

■ 100. Section 1065.514 is revised to read as follows:

**§ 1065.514 Cycle-validation criteria for operation over specified duty cycles.**

Validate the execution of your duty cycle according to this section unless the standard-setting part specifies otherwise. This section describes how to determine if the engine's operation during the test adequately matched the reference duty cycle. This section applies only to speed, torque, and power from the engine's primary output shaft. Other work inputs and outputs are not subject to cycle-validation criteria. You must compare the original reference duty cycle points generated as described in § 1065.512 to the corresponding feedback values recorded during the test. You may compare reference duty cycle points recorded during the test to the corresponding feedback values recorded during the test as long as the recorded reference values match the original points generated in § 1065.512. The number of points in the validation regression are based on the number of points in the original reference duty cycle generated in § 1065.512. For example if the original cycle has 1199 reference points at 1 Hz, then the regression will have up to 1199 pairs of reference and feedback values at the corresponding moments in the test. The feedback speed and torque signals may be filtered—either in real-time while the test is run or afterward in the analysis program. Any filtering that is used on the feedback signals used for cycle validation must also be used for calculating work. Feedback signals for control loops may use different filtering.

(a) *Testing performed by EPA.* Our tests must meet the specifications of paragraph (f) of this section, unless we determine that failing to meet the specifications is related to engine performance rather than to

shortcomings of the dynamometer or other laboratory equipment.

(b) *Testing performed by manufacturers.* Emission tests that meet the specifications of paragraph (f) of this section satisfy the standard-setting part's requirements for duty cycles. You may ask to use a dynamometer or other laboratory equipment that cannot meet those specifications. We will approve your request as long as using the alternate equipment does not adversely affect your ability to show compliance with the applicable emission standards.

(c) *Time-alignment.* Because time lag between feedback values and the reference values may bias cycle-validation results, you may advance or delay the entire sequence of feedback engine speed and torque pairs to synchronize them with the reference sequence. If you advance or delay feedback signals for cycle validation, you must make the same adjustment for calculating work. You may use linear interpolation between successive recorded feedback signals to time shift an amount that is a fraction of the recording period.

(d) *Omitting additional points.* Besides engine cranking, you may omit additional points from cycle-validation statistics as described in the following table:

TABLE 1 OF § 1065.514.—PERMISSIBLE CRITERIA FOR OMITTING POINTS FROM DUTY-CYCLE REGRESSION STATISTICS

| When operator demand is at its . . . | you may omit . . . | if . . . |
|---|---|---|
| For reference duty cycles that are specified in terms of speed and torque ($f_{nref}$, $T_{ref}$): | | |
| minimum | power and torque | $T_{ref}$ < 0% (motoring). |
| minimum | power and speed | $f_{nref}$ = 0% (idle speed) and $T_{ref}$ = 0% (idle torque) and $T_{ref} - (2\% \cdot T_{max\ mapped}) < T < T_{ref} + (2\% \cdot T_{max\ mapped})$. |
| minimum | power and either torque or speed. | $f_n > f_{nref}$ or $T > T_{ref}$ but not if $f_n > (f_{nref} \cdot 102\%)$ and $T > T_{ref} + (2\% \cdot T_{max,\ mapped})$. |
| maximum | power and either torque or speed. | $f_n < f_{nref}$ or $T < T_{ref}$ but not if $f_n < (f_{nref} \cdot 98\%)$ and $T < T_{ref} - (2\% \cdot T_{max,\ mapped})$. |
| For reference duty cycles that are specified in terms of speed and power ($f_{nref}$, $P_{ref}$): | | |
| minimum | power and torque | $< P_{ref} < 0\%$ (motoring). |
| minimum | power and speed | $f_{nref}$ = 0% (idle speed) and $P_{ref}$ = 0% (idle power) and $P_{ref} - (2\% \cdot P_{max\ mapped}) < P < P_{ref} + (2\% \cdot P_{max\ mapped})$. |
| minimum | power and either torque or speed. | $f_n > f_{nref}$ or $P > P_{ref}$ but not if $f_n > (f_{nref} \cdot 102\%)$ and $P > P_{ref} + (2\% \cdot P_{max\ mapped})$. |
| maximum | power and either torque or speed. | $f_n < f_{nref}$ or $P < P_{ref}$ but not if $f_n < (f_{nref} \cdot 98\%)$ and $P < P_{ref} - (2\% \cdot P_{max\ mapped})$. |

(e) *Statistical parameters.* Use the remaining points to calculate regression statistics described in § 1065.602. Round calculated regression statistics to the same number of significant digits as the criteria to which they are compared. Refer to Table 2 of § 1065.514 for the default criteria and refer to the standard-setting part to determine if there are other criteria for your engine. Calculate the following regression statistics:

(1) Slopes for feedback speed, $a_{1fn}$, feedback torque, $a_{1T}$, and feedback power $a_{1P}$.

(2) Intercepts for feedback speed, $a_{0fn}$, feedback torque, $a_{0T}$, and feedback power $a_{0P}$.

(3) Standard estimates of error for feedback speed, $SEE_{fn}$, feedback torque, $SEE_T$, and feedback power $SEE_P$.

(4) Coefficients of determination for feedback speed, $r^2_{fn}$, feedback torque, $r^2_T$, and feedback power $r^2_P$.

(f) *Cycle-validation criteria.* Unless the standard-setting part specifies otherwise, use the following criteria to validate a duty cycle:

(1) For variable-speed engines, apply all the statistical criteria in Table 2 of this section.

(2) For constant-speed engines, apply only the statistical criteria for torque in Table 2 of this section.

(3) For discrete-mode steady-state testing, apply cycle-validation criteria using one of the following approaches:

(i) Treat the sampling periods from the series of test modes as a continuous sampling period, analogous to ramped-modal testing and apply statistical criteria as described in paragraph (f)(1) or (2) of this section.

(ii) Evaluate each mode separately to validate the duty cycle. For variable-speed engines, all speed values measured during the sampling period for each mode would need to stay within a tolerance of 2 percent of the reference value, and all load values would need to stay within a tolerance of 2 percent or ± 0.27 N·m of the reference value, whichever is greater. Also, the mean speed value during the sampling period for each mode would need to be within 1 percent of the reference value, and the mean load value would need to stay within 1 percent or ± 0.12 N·m of the reference value, whichever is greater. The same torque criteria apply for constant-speed engines but the speed criteria do not apply.

TABLE 2 OF § 1065.514.—DEFAULT STATISTICAL CRITERIA FOR VALIDATING DUTY CYCLES

| Parameter | Speed | Torque | Power |
|---|---|---|---|
| Slope, $a_1$ | $0.950 \le a_1 \le 1.030$ | $0.830 \le a_1 \le 1.030$ | $0.830 \le a_1 \le 1.030$. |
| Absolute value of intercept, $\lvert a_0 \rvert$ | ≤ 10% of warm idle | ≤ 2.0% of maximum mapped torque. | ≤ 2.0% of maximum mapped power. |
| Standard error of estimate, *SEE* | ≤ 5.0% of maximum test speed | ≤ 10% of maximum mapped torque. | ≤ 10% of maximum mapped power. |
| Coefficient of determination, $r^2$ | ≥ 0.970 | ≥ 0.850 | ≥ 0.910. |

■ 101. Section 1065.520 is revised to read as follows:

**§ 1065.520 Pre-test verification procedures and pre-test data collection.**

(a) If your engine must comply with a PM standard, follow the procedures for PM sample preconditioning and tare weighing according to § 1065.590.

(b) Unless the standard-setting part specifies different tolerances, verify that ambient conditions are within the following tolerances before the test:

(1) Ambient temperature of (20 to 30) °C.

(2) Atmospheric pressure of (80.000 to 103.325) kPa and within ± 5 kPa of the value recorded at the time of the last engine map.

(3) Dilution air conditions as specified in § 1065.140, except in cases where you preheat your CVS before a cold start test.

(c) You may test engines at any intake-air humidity, and we may test engines at any intake-air humidity.

(d) Verify that auxiliary-work inputs and outputs are configured as they were during engine mapping, as described in§ 1065.510(a).

(e) You may perform a final calibration of the speed, torque, and proportional-flow control systems, which may include performing practice duty cycles.

(f) You may perform the following recommended procedure to precondition sampling systems:

(1) Start the engine and use good engineering judgment to bring it to one of the following:

(i) 100% torque at any speed above its peak-torque speed.

(ii) 100% operator demand.

(2) Operate any dilution systems at their expected flow rates. Prevent aqueous condensation in the dilution systems.

(3) Operate any PM sampling systems at their expected flow rates.

(4) Sample PM for at least 10 min using any sample media. You may change sample media during preconditioning. You may discard preconditioning samples without weighing them.

(5) You may purge any gaseous sampling systems during preconditioning.

(6) You may conduct calibrations or verifications on any idle equipment or analyzers during preconditioning.

(7) Proceed with the test sequence described in § 1065.530(a)(1).

(g) Verify the amount of nonmethane contamination in the exhaust and background HC sampling systems within eight hours of starting each duty-cycle sequence for laboratory tests. You may verify the contamination of a background HC sampling system by reading the last bag fill and purge using zero gas. For any NMHC measurement system that involves separately measuring methane and subtracting it from a THC measurement, verify the amount of THC contamination using only the THC analyzer response. There is no need to operate any separate methane analyzer for this verification, however you may measure and correct for THC contamination in the $CH_4$ sample train for the cases where NMHC is determined by subtracting $CH_4$ from THC, using an NMC as configured in § 1065.365(d), (e), and (f); and the calculations in § 1065.660(b)(2). Perform this verification as follows:

(1) Select the HC analyzer range for measuring the flow-weighted mean concentration expected at the HC standard.

(2) Zero the HC analyzer at the analyzer zero or sample port. Note that FID zero and span balance gases may be any combination of purified air or purified nitrogen that meets the specifications of § 1065.750. We recommend FID analyzer zero and span gases that contain approximately the flow-weighted mean concentration of $O_2$ expected during testing.

(3) Span the HC analyzer using span gas introduced at the analyzer span or sample port. Span on a carbon number basis of one ($C_1$). For example, if you use a $C_3H_8$ span gas of concentration 200 μmol/mol, span the FID to respond with a value of 600 μmol/mol.

(4) Overflow zero gas at the HC probe or into a fitting between the HC probe and its transfer line.

(5) Measure the THC concentration in the sampling and background systems as follows:

(i) For continuous sampling, record the mean THC concentration as overflow zero air flows.

(ii) For batch sampling, fill the sample medium (*e.g.*, filter) and record its mean THC concentration.

(iii) For the background system, record the mean THC concentration of the last fill and purge.

(6) Record this value as the initial THC concentration, $x_{THC[THC-FID]init}$, and use it to correct measured values as described in § 1065.660.

(7) If any of the $x_{THC[THC-FID]init}$ values exceed the greatest of the following values, determine the source of the contamination and take corrective action, such as purging the system during an additional preconditioning cycle or replacing contaminated portions:

(i) 2% of the flow-weighted mean wet, net concentration expected at the HC (THC or NMHC) standard.

(ii) 2% of the flow-weighted mean wet, net concentration of HC (THC or NMHC) measured during testing.

(iii) 2 μmol/mol.

(8) If corrective action does not resolve the deficiency, you may request to use the contaminated system as an alternate procedure under § 1065.10.

■ 102. Section 1065.525 is revised to read as follows:

**§ 1065.525 Engine starting, restarting, shutdown, and optional repeating of void discrete modes.**

(a) Start the engine using one of the following methods:

(1) Start the engine as recommended in the owners manual using a production starter motor or air-start system and either an adequately charged battery, a suitable power supply, or a suitable compressed air source.

(2) Use the dynamometer to start the engine. To do this, motor the engine within ±25% of its typical in-use cranking speed. Stop cranking within 1 second of starting the engine.

(b) If the engine does not start after 15 seconds of cranking, stop cranking and determine why the engine failed to start, unless the owners manual or the service-repair manual describes the longer cranking time as normal.

(c) Respond to engine stalling with the following steps:

(1) If the engine stalls during warm-up before emission sampling begins, restart the engine and continue warm-up.

(2) If the engine stalls during preconditioning before emission sampling begins, restart the engine and restart the preconditioning sequence.

(3) If the engine stalls at any time after emission sampling begins for a transient test or ramped-modal cycle test, the test is void.

(4) Except as described in paragraph (d) of this section, void the test if the engine stalls at any time after emission sampling begins.

(d) If emission sampling is interrupted during one of the modes of a discrete-mode test, you may void the results only for that individual mode and perform the following steps to continue the test:

(1) If the engine has stalled, restart the engine.

(2) Use good engineering judgment to restart the test sequence using the appropriate steps in § 1065.530(b).

(3) Precondition the engine by operating at the previous mode for approximately the same amount of time it operated at that mode for the last emission measurement.

(4) Advance to the mode at which the engine stalled and continue with the duty cycle as specified in the standard-setting part.

(5) Complete the remainder of the test according to the requirements in this subpart.

(e) Shut down the engine according to the manufacturer's specifications.

■ 103. Section 1065.530 is revised to read as follows:

**§ 1065.530 Emission test sequence.**

(a) Time the start of testing as follows:

(1) Perform one of the following if you precondition sampling systems as described in § 1065.520(f):

(i) For cold-start duty cycles, shut down the engine. Unless the standard-setting part specifies that you may only perform a natural engine cooldown, you may perform a forced engine cooldown. Use good engineering judgment to set up systems to send cooling air across the engine, to send cool oil through the engine lubrication system, to remove heat from coolant through the engine cooling system, and to remove heat from any exhaust aftertreatment systems. In the case of a forced aftertreatment cooldown, good engineering judgment would indicate that you not start flowing cooling air until the aftertreatment system has cooled below its catalytic activation temperature. For platinum-group metal catalysts, this temperature is about 200 °C. Once the aftertreatment system has naturally cooled below its catalytic activation temperature, good engineering judgment would indicate that you use clean air with a temperature of at least 15 °C, and direct the air through the aftertreatment system in the normal direction of exhaust flow. Do not use any cooling procedure that results in unrepresentative emissions (see § 1065.10(c)(1)). You may start a cold-start duty cycle when the temperatures of an engine's lubricant, coolant, and aftertreatment systems are all between (20 and 30) °C.

(ii) For hot-start emission measurements, shut down the engine. Start the hot-start duty cycle as specified in the standard-setting part.

(iii) For testing that involves hot-stabilized emission measurements, such as any steady-state testing, you may continue to operate the engine at maximum test speed and 100% torque if that is the first operating point. Otherwise, operate the engine at warm idle or the first operating point of the duty cycle. In any case, start the emission test within 10 min after you complete the preconditioning procedure.

(2) If you do not precondition sampling systems, perform one of the following:

(i) For cold-start duty cycles, prepare the engine according to paragraph (a)(1)(i) of this section.

(ii) For hot-start emission measurements, first operate the engine at any speed above peak-torque speed and at (65 to 85)% of maximum mapped power until either the engine coolant, block, or head absolute temperature is within ±2% of its mean value for at least 2 min or until the engine thermostat controls engine temperature. Shut down the engine. Start the duty cycle within 20 min of engine shutdown.

(iii) For testing that involves hot-stabilized emission measurements, bring the engine either to warm idle or the first operating point of the duty cycle. Start the test within 10 min of achieving temperature stability. Determine temperature stability either as the point at which the engine coolant, block, or head absolute temperature is within ±2% of its mean value for at least 2 min, or as the point at which the engine thermostat controls engine temperature.

(b) Take the following steps before emission sampling begins:

(1) For batch sampling, connect clean storage media, such as evacuated bags or tare-weighed filters.

(2) Start all measurement instruments according to the instrument manufacturer's instructions and using good engineering judgment.

(3) Start dilution systems, sample pumps, cooling fans, and the data-collection system.

(4) Pre-heat or pre-cool heat exchangers in the sampling system to within their operating temperature tolerances for a test.

(5) Allow heated or cooled components such as sample lines, filters, chillers, and pumps to stabilize at their operating temperatures.

(6) Verify that there are no significant vacuum-side leaks according to § 1065.345.

(7) Adjust the sample flow rates to desired levels, using bypass flow, if desired.

(8) Zero or re-zero any electronic integrating devices, before the start of any test interval.

(9) Select gas analyzer ranges. You may automatically or manually switch gas analyzer ranges during a test only if switching is performed by changing the span over which the digital resolution of the instrument is applied. During a test you may not switch the gains of an analyzer's analog operational amplifier(s).

(10) Zero and span all continuous analyzers using NIST-traceable gases that meet the specifications of § 1065.750. Span FID analyzers on a carbon number basis of one (1), $C_1$. For example, if you use a $C_3H_8$ span gas of concentration 200 μmol/mol, span the FID to respond with a value of 600 μmol/mol. Span FID analyzers consistent with the determination of their respective response factors, *RF*, and penetration fractions, *PF*, according to § 1065.365.

(11) We recommend that you verify gas analyzer responses after zeroing and spanning by sampling a calibration gas that has a concentration near one-half of the span gas concentration. Based on the results and good engineering judgment, you may decide whether or not to re-zero, re-span, or re-calibrate a gas analyzer before starting a test.

(12) If you correct for dilution air background concentrations of engine exhaust constituents, start measuring and recording background concentrations.

(13) Drain any condensate from the intake air system and close any intake air condensate drains that are not normally open during in-use operation.

(c) Start testing as follows:

(1) If an engine is already running and warmed up, and starting is not part of the duty cycle, perform the following for the various duty cycles:

(i) Transient and steady-state ramped-modal cycles. Simultaneously start running the duty cycle, sampling exhaust gases, recording data, and integrating measured values.

(ii) Steady-state discrete-mode cycles. Control the engine operation to match the first mode in the test cycle. This will require controlling engine speed and load, engine load, or other operator demand settings, as specified in the standard-setting part. Follow the instructions in the standard-setting part to determine how long to stabilize engine operation at each mode, how long to sample emissions at each mode, and how to transition between modes.

(2) If engine starting is part of the duty cycle, initiate data logging, sampling of exhaust gases, and integrating measured values before attempting to start the engine. Initiate the duty cycle when the engine starts.

(d) At the end of each test interval, continue to operate all sampling and dilution systems to allow the sampling system's response time to elapse. Then stop all sampling and recording, including the recording of background samples. Finally, stop any integrating devices and indicate the end of the duty cycle in the recorded data.

(e) Shut down the engine if you have completed testing or if it is part of the duty cycle.

(f) If testing involves another duty cycle after a soak period with the engine off, start a timer when the engine shuts down, and repeat the steps in paragraphs (b) through (e) of this section as needed.

(g) Take the following steps after emission sampling is complete:

(1) For any proportional batch sample, such as a bag sample or PM sample, verify that proportional sampling was maintained according to § 1065.545. Void any samples that did not maintain proportional sampling according to § 1065.545.

(2) Place any used PM samples into covered or sealed containers and return them to the PM-stabilization environment. Follow the PM sample post-conditioning and total weighing procedures in § 1065.595.

(3) As soon as practical after the duty cycle is complete, or during the soak period if practical, perform the following:

(i) Zero and span all batch gas analyzers no later than 30 minutes after the duty cycle is complete, or during the soak period if practical.

(ii) Analyze any conventional gaseous batch samples no later than 30 minutes after the duty cycle is complete, or during the soak period if practical.

(iii) Analyze background samples no later than 60 minutes after the duty cycle is complete.

(iv) Analyze non-conventional gaseous batch samples, such as ethanol (NMCHE) as soon as practical using good engineering judgment.

(4) After quantifying exhaust gases, verify drift as follows:

(i) For batch and continuous gas anlyzers, record the mean analyzer value after stabilizing a zero gas to the analyzer. Stabilization may include time to purge the analyzer of any sample gas, plus any additional time to account for analyzer response.

(ii) Record the mean analyzer value after stabilizing the span gas to the analyzer. Stabilization may include time to purge the analyzer of any sample gas, plus any additional time to account for analyzer response.

(iii) Use these data to validate and correct for drift as described in § 1065.550.

(h) Unless the standard-setting part specifies otherwise, determine whether or not the test meets the cycle-validation criteria in § 1065.514.

(1) If the criteria void the test, you may retest using the same denormalized duty cycle, or you may re-map the engine, denormalize the reference duty cycle based on the new map and retest the engine using the new denormalized duty cycle.

(2) If the criteria void the test for a constant-speed engine only during commands of maximum test torque, you may do the following:

(i) Determine the first and last feedback speeds at which maximum test torque was commanded.

(ii) If the last speed is greater than or equal to 90% of the first speed, the test is void. You may retest using the same denormalized duty cycle, or you may re-map the engine, denormalize the reference duty cycle based on the new map and retest the engine using the new denormalized duty cycle.

(iii) If the last speed is less than 90% of the first speed, reduce maximum test torque by 5%, and proceed as follows:

(A) Denormalize the entire duty cycle based on the reduced maximum test torque according to § 1065.512.

(B) Retest the engine using the denormalized test cycle that is based on the reduced maximum test torque.

(C) If your engine still fails the cycle criteria, reduce the maximum test torque by another 5% of the original maximum test torque.

(D) If your engine fails after repeating this procedure four times, such that your engine still fails after you have reduced the maximum test torque by 20% of the original maximum test torque, notify us and we will consider specifying a more appropriate duty cycle for your engine under the provisions of § 1065.10(c).

(i) [Reserved]

(j) Measure and record ambient temperature, pressure, and humidity, as appropriate.

■ 104. Section 1065.545 is revised to read as follows:

**§ 1065.545 Validation of proportional flow control for batch sampling and minimum dilution ratio for PM batch sampling.**

For any proportional batch sample such as a bag or PM filter, demonstrate that proportional sampling was maintained using one of the following, noting that you may omit up to 5% of the total number of data points as outliers:

(a) For any pair of flow meters, use recorded sample and total flow rates, where total flow rate means the raw exhaust flow rate for raw exhaust sampling and the dilute exhaust flow rate for CVS sampling, or their 1 Hz means with the statistical calculations in § 1065.602. Determine the standard error of the estimate, *SEE*, of the sample flow rate versus the total flow rate. For each test interval, demonstrate that *SEE* was less than or equal to 3.5% of the mean sample flow rate.

(b) For any pair of flow meters, use recorded sample and total flow rates, where total flow rate means the raw exhaust flow rate for raw exhaust sampling and the dilute exhaust flow rate for CVS sampling, or their 1 Hz means to demonstrate that each flow rate was constant within ±2.5% of its respective mean or target flow rate. You may use the following options instead of recording the respective flow rate of each type of meter:

(1) *Critical-flow venturi option.* For critical-flow venturis, you may use recorded venturi-inlet conditions or their 1 Hz means. Demonstrate that the flow density at the venturi inlet was constant within ±2.5% of the mean or target density over each test interval. For a CVS critical-flow venturi, you may demonstrate this by showing that the absolute temperature at the venturi inlet was constant within ±4% of the mean or target absolute temperature over each test interval.

(2) *Positive-displacement pump option.* You may use recorded pump-inlet conditions or their 1 Hz means. Demonstrate that the flow density at the pump inlet was constant within ±2.5% of the mean or target density over each test interval. For a CVS pump, you may demonstrate this by showing that the absolute temperature at the pump inlet was constant within ±2% of the mean or target absolute temperature over each test interval.

(c) Using good engineering judgment, demonstrate with an engineering analysis that the proportional-flow control system inherently ensures proportional sampling under all circumstances expected during testing. For example, you might use CFVs for both sample flow and total flow and demonstrate that they always have the same inlet pressures and temperatures and that they always operate under critical-flow conditions.

(d) Use measured or calculated flows and/or tracer gas concentrations (e.g., $CO_2$) to determine the minimum dilution ratio for PM batch sampling over the test interval.

■ 105. Section 1065.550 is revised to read as follows:

**§ 1065.550 Gas analyzer range validation, drift validation, and drift correction.**

(a) *Range validation.* If an analyzer operated above 100% of its range at any time during the test, perform the following steps:

(1) For batch sampling, re-analyze the sample using the lowest analyzer range that results in a maximum instrument response below 100%. Report the result from the lowest range from which the analyzer operates below 100% of its range.

(2) For continuous sampling, repeat the entire test using the next higher analyzer range. If the analyzer again operates above 100% of its range, repeat the test using the next higher range. Continue to repeat the test until the analyzer always operates at less than 100% of its range.

(b) *Drift validation and drift correction.* Calculate two sets of brake-specific emission results. Calculate one set using the data before drift correction and calculate the other set after correcting all the data for drift according to § 1065.672. Use the two sets of brake-specific emission results as follows:

(1) This test is validated for drift if, for each regulated pollutant, the difference between the uncorrected and the corrected brake-specific emission values is within ±4% of the uncorrected results or applicable standard, whichever is greater. If not, the entire test is void.

(2) If the test is validated for drift, you must use only the drift-corrected emission results when reporting emissions, unless you demonstrate to us that using the drift-corrected results adversely affects your ability to demonstrate that your engine complies with the applicable standards.

■ 106. Section 1065.590 is revised to read as follows:

**§ 1065.590 PM sampling media (e.g., filters) preconditioning and tare weighing.**

Before an emission test, take the following steps to prepare PM sampling media (e.g., filters) and equipment for PM measurements:

(a) Make sure the balance and PM-stabilization environments meet the periodic verifications in § 1065.390.

(b) Visually inspect unused sample media (e.g., filters) for defects and discard defective media.

(c) To handle PM sampling media (e.g., filters), use electrically grounded tweezers or a grounding strap, as described in § 1065.190.

(d) Place unused sample media (e.g., filters) in one or more containers that are open to the PM-stabilization environment. If you are using filters, you may place them in the bottom half of a filter cassette.

(e) Stabilize sample media (e.g., filters) in the PM-stabilization environment. Consider an unused sample medium stabilized as long as it has been in the PM-stabilization environment for a minimum of 30 min, during which the PM-stabilization environment has been within the specifications of § 1065.190.

(f) Weigh the sample media (e.g., filters) automatically or manually, as follows:

(1) For automatic weighing, follow the automation system manufacturer's instructions to prepare samples for weighing. This may include placing the samples in a special container.

(2) For manual weighing, use good engineering judgment to determine if substitution weighing is necessary to show that an engine meets the applicable standard. You may follow the substitution weighing procedure in paragraph (j) of this section, or you may develop your own procedure.

(g) Correct the measured mass of each sample medium (e.g., filter) for buoyancy as described in § 1065.690. These buoyancy-corrected values are subsequently subtracted from the post-test mass of the corresponding sample media (e.g., filters) and collected PM to determine the mass of PM emitted during the test.

(h) You may repeat measurements to determine the mean mass of each sample medium (e.g., filter). Use good engineering judgment to exclude outliers from the calculation of mean mass values.

(i) If you use filters as sample media, load unused filters that have been tare-weighed into clean filter cassettes and place the loaded cassettes in a clean, covered or sealed container before removing them from the stabilization environment for transport to the test site for sampling. We recommend that you keep filter cassettes clean by periodically washing or wiping them with a compatible solvent applied using a lint-free cloth. Depending upon your cassette material, ethanol ($C_2H_5OH$) might be an acceptable solvent. Your cleaning frequency will depend on your engine's level of PM and HC emissions.

(j) Substitution weighing involves measurement of a reference weight before and after each weighing of PM sampling media (e.g., filters). While substitution weighing requires more measurements, it corrects for a balance's zero-drift and it relies on balance linearity only over a small range. This is most advantageous when quantifying net PM masses that are less than 0.1% of the sample medium's mass. However, it may not be advantageous when net PM masses exceed 1% of the sample medium's mass. If you utilize substitution weighing, it must be used for both pre-test and post-test weighing. The same substitution weight must be used for both pre-test and post-test weighing. Correct the mass of the substitution weight for buoyancy if the density of the substitution weight is less than 2.0 g/cm$^3$. The following steps are an example of substitution weighing:

(1) Use electrically grounded tweezers or a grounding strap, as described in § 1065.190.

(2) Use a static neutralizer as described in § 1065.190 to minimize static electric charge on any object before it is placed on the balance pan.

(3) Select a substitution weight that meets the requirements for calibration weights found in § 1065.790. The substitution weight must also have the same density as the weight you use to span the microbalance, and be similar in mass to an unused sample medium (e.g., filter). A 47 mm PTFE membrane filter will typically have a mass in the range of 80 to 100 mg.

(4) Record the stable balance reading, then remove the calibration weight.

(5) Weigh an unused sample medium (e.g., a new filter), record the stable balance reading and record the balance environment's dewpoint, ambient temperature, and atmospheric pressure.

(6) Reweigh the calibration weight and record the stable balance reading.

(7) Calculate the arithmetic mean of the two calibration-weight readings that you recorded immediately before and after weighing the unused sample. Subtract that mean value from the unused sample reading, then add the true mass of the calibration weight as stated on the calibration-weight certificate. Record this result. This is the unused sample's tare weight without correcting for buoyancy.

(8) Repeat these substitution-weighing steps for the remainder of your unused sample media.

(9) Once weighing is completed, follow the instructions given in paragraphs (g) through (i) of this section.

■ 107. Section 1065.595 is revised to read as follows:

**§ 1065.595 PM sample post-conditioning and total weighing.**

After testing is complete, return the sample media (e.g., filters) to the weighing and PM-stabilization environments.

(a) Make sure the weighing and PM-stabilization environments meet the ambient condition specifications in § 1065.190(e)(1). If those specifications are not met, leave the test sample media (e.g., filters) covered until proper conditions have been met.

(b) In the PM-stabilization environment, remove PM samples from sealed containers. If you use filters, you may remove them from their cassettes before or after stabilization. We recommend always removing the top portion of the cassette before stabilization. When you remove a filter from a cassette, separate the top half of

the cassette from the bottom half using a cassette separator designed for this purpose.

(c) To handle PM samples, use electrically grounded tweezers or a grounding strap, as described in § 1065.190.

(d) Visually inspect the sampling media (e.g., filters) and collected particulate. If either the sample media (e.g., filters) or particulate sample appear to have been compromised, or the particulate matter contacts any surface other than the filter, the sample may not be used to determine particulate emissions. In the case of contact with another surface, clean the affected surface before continuing.

(e) To stabilize PM samples, place them in one or more containers that are open to the PM-stabilization environment, as described in § 1065.190. If you expect that a sample medium's (e.g., filter's) total surface concentration of PM will be less than 400 µg, assuming a 38 mm diameter filter stain area, expose the filter to a PM-stabilization environment meeting the specifications of § 1065.190 for at least 30 minutes before weighing. If you expect a higher PM concentration or do not know what PM concentration to expect, expose the filter to the stabilization environment for at least 60 minutes before weighing. Note that 400 µg on sample media (e.g., filters) is an approximate net mass of 0.07 g/kW·hr for a hot-start test with compression-ignition engines tested according to 40 CFR part 86, subpart N, or 50 mg/mile for light-duty vehicles tested according to 40 CFR part 86, subpart B.

(f) Repeat the procedures in § 1065.590(f) through (i) to determine post-test mass of the sample media (e.g., filters).

(g) Subtract each buoyancy-corrected tare mass of the sample medium (e.g., filter) from its respective buoyancy-corrected mass. The result is the net PM mass, $m_{PM}$. Use $m_{PM}$ in emission calculations in § 1065.650.

## Subpart G—[Amended]

■ 108. Section 1065.601 is amended by revising paragraph (c)(1) to read as follows:

### § 1065.601 Overview.

* * * * *

(c) * * *

(1) Mass-based emission calculations prescribed by the International Organization for Standardization (ISO), according to ISO 8178, except the following:

(i) ISO 8178–1 Section 14.4, $NO_X$ Correction for Humidity and Temperature. See § 1065.670 for approved methods for humidity corrections.

(ii) ISO 8178–1 Section 15.1, Particulate Correction Factor for Humidity.

* * * * *

■ 109. Section 1065.602 is amended by revising paragraphs (f)(3) before the table and (l) introductory text to read as follows:

### § 1065.602 Statistics.

* * * * *

(f) * * *

(3) Use Table 1 of this section to compare $t$ to the $t_{crit}$ values tabulated versus the number of degrees of freedom. If $t$ is less than $t_{crit}$, then $t$ passes the $t$-test. The Microsoft Excel software package contains a TINV function that returns results equivalent to § 1065.602 Table 1 and may be used in place of Table 1.

* * * * *

(l) *Flow-weighted mean concentration.* In some sections of this part, you may need to calculate a flow-weighted mean concentration to determine the applicability of certain provisions. A flow-weighted mean is the mean of a quantity after it is weighted proportional to a corresponding flow rate. For example, if a gas concentration is measured continuously from the raw exhaust of an engine, its flow-weighted mean concentration is the sum of the products of each recorded concentration times its respective exhaust molar flow rate, divided by the sum of the recorded flow rate values. As another example, the bag concentration from a CVS system is the same as the flow-weighted mean concentration because the CVS system itself flow-weights the bag concentration. You might already expect a certain flow-weighted mean concentration of an emission at its standard based on previous testing with similar engines or testing with similar equipment and instruments. If you need to estimate your expected flow-weighted mean concentration of an emission at its standard, we recommend using the following examples as a guide for how to estimate the flow-weighted mean concentration expected at the standard. Note that these examples are not exact and that they contain assumptions that are not always valid. Use good engineering judgment to determine if you can use similar assumptions.

* * * * *

■ 110. Section 1065.610 is revised to read as follows:

### § 1065.610 Duty cycle generation.

This section describes how to generate duty cycles that are specific to your engine, based on the normalized duty cycles in the standard-setting part. During an emission test, use a duty cycle that is specific to your engine to command engine speed, torque, and power, as applicable, using an engine dynamometer and an engine operator demand. Paragraph (a) of this section describes how to ''normalize'' your engine's map to determine the maximum test speed and torque for your engine. The rest of this section describes how to use these values to ''denormalize'' the duty cycles in the standard-setting parts, which are all published on a normalized basis. Thus, the term ''normalized'' in paragraph (a) of this section refers to different values than it does in the rest of the section.

(a) *Maximum test speed,* $f_{ntest}$. This section generally applies to duty cycles for variable-speed engines. For constant-speed engines subject to duty cycles that specify normalized speed commands, use the no-load governed speed as the measured $f_{ntest}$. This is the highest engine speed where an engine outputs zero torque. For variable-speed engines, determine the measured $f_{ntest}$ from the power-versus-speed map, generated according to § 1065.510, as follows:

(1) Based on the map, determine maximum power, $P_{max}$, and the speed at which maximum power occurred, $f_{nPmax}$. Divide every recorded power by $P_{max}$ and divide every recorded speed by $f_{nPmax}$. The result is a normalized power-versus-speed map. Your measured $f_{ntest}$ is the speed at which the sum of the squares of normalized speed and power is maximum, as follows:

$$f_{ntest} = f_{ni} \text{ at the maximum of } (f_{nnormi}^2 + P_{normi}^2)$$

Eq. 1065.610–1

Where:

$f_{ntest}$ = maximum test speed.

$i$ = an indexing variable that represents one recorded value of an engine map.

$f_{nnormi}$ = an engine speed normalized by dividing it by $f_{nPmax}$.

$P_{normi}$ = an engine power normalized by dividing it by $P_{max}$.

Example:

$(f_{nnorm1} = 1.002, P_{norm1} = 0.978, f_{n1} = 2359.71)$
$(f_{nnorm2} = 1.004, P_{norm2} = 0.977, f_{n2} = 2364.42)$
$(f_{nnorm3} = 1.006, P_{norm3} = 0.974, f_{n3} = 2369.13)$
$(f_{nnorm12} + P_{norm1}^2) = (1.002^2 + 0.978^2) = 1.960$
$(f_{nnorm2}^2 + P_{norm2}^2) = (1.004^2 + 0.977^2) = 1.963$
$(f_{nnorm3}^2 + P_{norm3}^2) = (1.006^2 + 0.974^2) = 1.961$
maximum = 1.963 at i = 2
$f_{ntest}$ = 2364.42 rev/min

(2) For variable-speed engines, transform normalized speeds to reference speeds according to paragraph (c) of this section by using the measured maximum test speed determined according to paragraph (a)(1) of this section—or use your declared maximum test speed, as allowed in § 1065.510.

(3) For constant-speed engines, transform normalized speeds to reference speeds according to paragraph (c) of this section by using the measured no-load governed speed—or use your declared maximum test speed, as allowed in § 1065.510.

(b) *Maximum test torque,* $T_{test}$. For constant-speed engines, determine the measured $T_{test}$ from the power-versus-speed map, generated according to § 1065.510, as follows:

(1) Based on the map, determine maximum power, $P_{max}$, and the speed at which maximum power occurs, $f_{nPmax}$. Divide every recorded power by $P_{max}$ and divide every recorded speed by $f_{nPmax}$. The result is a normalized power-versus-speed map. Your measured $T_{test}$ is the torque at which the sum of the squares of normalized speed and power is maximum, as follows:

$$T_{test} = T_i \text{ at the maximum of } (f_{nnormi}^2 + P_{normi}^2)$$

Eq. 1065.610–2

Where:

$T_{test}$ = maximum test torque.

Example:

($f_{nnorm1}$ = 1.002, $P_{norm1}$ = 0.978, $T_1$ = 722.62 N · m)
($f_{nnorm2}$ = 1.004, $P_{norm2}$ = 0.977, $T_2$ = 720.44 N · m)
($f_{nnorm3}$ = 1.006, $P_{norm3}$ = 0.974, $T_3$ = 716.80 N · m)
($f_{nnorm1}^2 + P_{norm1}^2$) = ($1.002^2 + 0.978^2$) = 1.960
($f_{nnorm1}^2 + P_{norm1}^2$) = ($1.004^2 + 0.977^2$) = 1.963
($f_{nnorm1}^2 + P_{norm1}^2$) = ($1.006^2 + 0.974^2$) = 1.961
maximum = 1.963 at i = 2
$T_{test}$ = 720.44 N · m

(2) Transform normalized torques to reference torques according to paragraph (d) of this section by using the measured maximum test torque determined according to paragraph (b)(1) of this section—or use your declared maximum test torque, as allowed in § 1065.510.

(c) *Generating reference speed values from normalized duty cycle speeds.* Transform normalized speed values to reference values as follows:

(1) *% speed.* If your normalized duty cycle specifies % speed values, use your warm idle speed and your maximum test speed to transform the duty cycle, as follows:

$$f_{nref} = \%\ speed \cdot (f_{ntest} - f_{nidle}) + f_{nidle}$$

Eq. 1065.610–3

Example:

*% speed* = 85%
$f_{ntest}$ = 2364 rev/min
$f_{nidle}$ = 650 rev/min
$f_{nref}$ = 85% · (2364 − 650 ) + 650
$f_{nref}$ = 2107 rev/min

(2) *A, B, and C speeds.* If your normalized duty cycle specifies speeds as A, B, or C values, use your power-versus-speed curve to determine the lowest speed below maximum power at which 50% of maximum power occurs. Denote this value as $n_{lo}$. Take $n_{lo}$ to be warm idle speed if all power points at speeds below the maximum power speed are higher than 50% of maximum power. Also determine the highest speed above maximum power at which 70% of maximum power occurs. Denote this value as $n_{hi}$. If all power points at speeds above the maximum power speed are higher than 70% of maximum power, take $n_{hi}$ to be the declared maximum safe engine speed or the declared maximum representative engine speed, whichever is lower. Use $n_{hi}$ and $n_{lo}$ to calculate reference values for A, B, or C speeds as follows:

$$f_{nrefA} = 0.25 \cdot (n_{hi} - n_{lo}) + n_{lo}$$

Eq. 1065.610–4

$$f_{nrefB} = 0.50 \cdot (n_{hi} - nn_{lo}) + n_{lo}$$

Eq. 1065.610–5

$$f_{nrefC} = 0.75 \cdot (n_{hi} - n_{lo}) + n_{lo}$$

Eq. 1065.610–6

Example:

$n_{lo}$ = 1005 rev/min
$n_{hi}$ = 2385 rev/min
$f_{nrefA}$ = 0.25 · (2385 − 1005) + 1005
$f_{nrefB}$ = 0.50 · (2385 − 1005) + 1005
$f_{nrefC}$ = 0.75 · (2385 − 1005) + 1005
$f_{nrefA}$ = 1350 rev/min
$f_{nrefB}$ = 1695 rev/min
$f_{nrefC}$ = 2040 rev/min

(3) *Intermediate speed.* If your normalized duty cycle specifies a speed as ''intermediate speed,'' use your torque-versus-speed curve to determine the speed at which maximum torque occurs. This is peak torque speed. Identify your reference intermediate speed as one of the following values:

(i) Peak torque speed if it is between (60 and 75)% of maximum test speed.

(ii) 60% of maximum test speed if peak torque speed is less than 60% of maximum test speed.

(iii) 75% of maximum test speed if peak torque speed is greater than 75% of maximum test speed.

(d) *Generating reference torques from normalized duty-cycle torques.* Transform normalized torques to reference torques using your map of maximum torque versus speed.

(1) *Reference torque for variable-speed engines.* For a given speed point, multiply the corresponding % torque by the maximum torque at that speed, according to your map. If your engine is subject to a reference duty cycle that specifies negative torque values (i.e., engine motoring), use negative torque for those motoring points (i.e., the motoring torque). If you map negative torque as allowed under § 1065.510 (c)(2) and the low-speed governor activates, resulting in positive torques, you may replace those positive motoring mapped torques with negative values between zero and the largest negative motoring torque. For both maximum and motoring torque maps, linearly interpolate mapped torque values to determine torque between mapped speeds. If the reference speed is below the minimum mapped speed (i.e., 95% of idle speed or 95% of lowest required speed, whichever is higher), use the mapped torque at the minimum mapped speed as the reference torque. The result is the reference torque for each speed point.

(2) *Reference torque for constant-speed engines.* Multiply a % torque value by your maximum test torque. The result is the reference torque for each point.

(3) *Required deviations.* We require the following deviations for variable-speed engines intended primarily for propulsion of a vehicle with an automatic transmission where that engine is subject to a transient duty cycle with idle operation. These deviations are intended to produce a more representative transient duty cycle for these applications. For steady-state duty cycles or transient duty cycles with no idle operation, these requirements do not apply. Idle points for steady state duty cycles of such engines are to be run at conditions simulating neutral or park on the transmission.

(i) Zero-percent speed is the warm idle speed measured according to § 1065.510(b)(6) with CITT applied, i.e., measured warm idle speed in drive.

(ii) If the cycle begins with a set of contiguous idle points (zero-percent speed, and zero-percent torque), leave the reference torques set to zero for this initial contiguous idle segment. This is to represent free idle operation with the transmission in neutral or park at the start of the transient duty cycle, after the engine is started. If the initial idle segment is longer than 24 s, change the reference torques for the remaining idle points in the initial contiguous idle segment to CITT (i.e., change idle points corresponding to 25 s to the end of the initial idle segment to CITT). This is to represent shifting the transmission to drive.

(iii) For all other idle points, change the reference torque to CITT. This is to represent the transmission operating in drive.

(iv) If the engine is intended primarily for automatic transmissions with a Neutral-When-Stationary feature that automatically shifts the transmission to neutral after the vehicle is stopped for a designated time and automatically shifts back to drive when the operator increases demand (i.e., pushes the

accelerator pedal), change the reference torque back to zero for idle points in drive after the designated time.

(v) For all points with normalized speed at or below zero percent and reference torque from zero to CITT, set the reference torque to CITT. This is to provide smoother torque references below idle speed.

(vi) For motoring points, make no changes.

(vii) For consecutive points with reference torques from zero to CITT that immediately follow idle points, change their reference torques to CITT. This is to provide smooth torque transition out of idle operation. This does not apply if the Neutral-When-Stationary feature is used and the transmission has shifted to neutral.

(viii) For consecutive points with reference torque from zero to CITT that immediately precede idle points, change their reference torques to CITT. This is to provide smooth torque transition into idle operation.

(4) *Permissible deviations for any engine.* If your engine does not operate below a certain minimum torque under normal in-use conditions, you may use a declared minimum torque as the reference value instead of any value denormalized to be less than the declared value. For example, if your engine is connected to a hydrostatic transmission and it has a minimum torque even when all the driven hydraulic actuators and motors are stationary and the engine is at idle, then you may use this declared minimum torque as a reference torque value instead of any reference torque value generated under paragraph (d)(1) or (2) of this section that is between zero and this declared minimum torque.

(e) *Generating reference power values from normalized duty cycle powers.* Transform normalized power values to reference speed and power values using your map of maximum power versus speed.

(1) First transform normalized speed values into reference speed values. For a given speed point, multiply the corresponding % power by the mapped power at maximum test speed, $f_{ntest}$, unless specified otherwise by the standard-setting part. The result is the reference power for each speed point, $P_{ref}$. Convert these reference powers to corresponding torques for operator demand and dynamometer control and for duty cycle validation per 1065.514. Use the reference speed associated with each reference power point for this conversion. As with cycles specified with % torque, linearly interpolate between these reference torque values generated from cycles with % power.

(2) Permissible deviations for any engine. If your engine does not operate below a certain power under normal in-use conditions, you may use a declared minimum power as the reference value instead of any value denormalized to be less than the declared value. For example, if your engine is directly connected to a propeller, it may have a minimum power called idle power. In this case, you may use this declared minimum power as a reference power value instead of any reference power value generated per paragraph (e)(1) of this section that is from zero to this declared minimum power.

■ 111. Section 1065.640 is amended by revising paragraphs (a) and (e) and redesignating the second ''Table 3'' as ''Table 4'' to read as follows:

**§ 1065.640 Flow meter calibration calculations.**

* * * * *

(a) *Reference meter conversions.* The calibration equations in this section use molar flow rate, $\dot{n}_{ref}$, as a reference quantity. If your reference meter outputs a flow rate in a different quantity, such as standard volume rate, $\dot{V}_{stdref}$, actual volume rate, $\dot{V}_{actref}$, or mass rate, $\dot{m}_{ref}$, convert your reference meter output to a molar flow rate using the following equations, noting that while values for volume rate, mass rate, pressure, temperature, and molar mass may change during an emission test, you should ensure that they are as constant as practical for each individual set point during a flow meter calibration:

$$\dot{n}_{ref} = \frac{\dot{V}_{stdref} \cdot p_{std}}{T_{std} \cdot R} = \frac{\dot{V}_{actref} \cdot p_{act}}{T_{act} \cdot R} = \frac{\dot{m}_{ref}}{M_{mix}} \qquad \text{Eq. 1065.640-1}$$

Where:

$\dot{N}_{ref}$ = reference molar flow rate.

$\dot{V}_{stdref}$ = reference volume flow rate, corrected to a standard pressure and a standard temperature.

$\dot{V}_{actref}$ = reference volume flow rate at the actual pressure and temperature of the flow rate.

$\dot{N}_{ref}$ = reference mass flow.

$p_{std}$ = standard pressure.

$p_{act}$ = actual pressure of the flow rate.

$T_{std}$ = standard temperature.

$T_{act}$ = actual temperature of the flow rate.

$R$ = molar gas constant.

$M_{mix}$ = molar mass of the flow rate.

Example 1:

$\dot{V}_{stdref}$ = 1000.00 ft$^3$/min = 0.471948 m$^3$/s

$p$ = 29.9213 in Hg @ 32 °F = 101325 Pa

$T$ = 68.0 °F = 293.15 K

$R$ = 8.314472 J/(mol · K)

$$\dot{n}_{ref} = \frac{0.471948 \cdot 101325}{293.15 \cdot 8.314472}$$

$\dot{N}_{ref}$ = 19.169 mol/s

Example 2:

$\dot{M}_{ref}$ = 17.2683 kg/min = 287.805 g/s

$M_{mix}$ = 28.7805 g/mol

$$\dot{n}_{ref} = \frac{287.05}{28.7805}$$

$\dot{n}_{ref}$ = 10.0000 mol/s

(e) *CFV calibration.* Some CFV flow meters consist of a single venturi and some consist of multiple venturis, where different combinations of venturis are used to meter different flow rates. For CFV flow meters that consist of multiple venturis, either calibrate each venturi independently to determine a separate discharge coefficient, $C_d$, for each venturi, or calibrate each combination of venturis as one venturi. In the case where you calibrate a combination of venturis, use the sum of the active venturi throat areas as $A_t$, the square root of the sum of the squares of the active venturi throat diameters as $d_t$, and the ratio of the venturi throat to inlet diameters as the ratio of the square root of the sum of the active venturi throat diameters ($d_t$) to the diameter of the common entrance to all of the venturis ($D$). To determine the $C_d$ for a single venturi or a single combination of venturis, perform the following steps:

(1) Use the data collected at each calibration set point to calculate an individual $C_d$ for each point using Eq. 1065.640–4.

(2) Calculate the mean and standard deviation of all the $C_d$ values according to Eqs. 1065.602–1 and 1065.602–2.

(3) If the standard deviation of all the $C_d$ values is less than or equal to 0.3% of the mean $C_d$, use the mean $C_d$ in Eq. 1065.642–6, and use the CFV only down to the lowest $r$ measured during calibration using the following equation:

$$r = 1 - \frac{\Delta p}{p_{in}} \qquad \text{Eq.1065.640-13}$$

(4) If the standard deviation of all the $C_d$ values exceeds 0.3% of the mean $C_d$,

omit the $C_d$ values corresponding to the data point collected at the lowest $r$ measured during calibration.

(5) If the number of remaining data points is less than seven, take corrective action by checking your calibration data or repeating the calibration process. If you repeat the calibration process, we recommend checking for leaks, applying tighter tolerances to measurements and allowing more time for flows to stabilize.

(6) If the number of remaining $C_d$ values is seven or greater, recalculate the mean and standard deviation of the remaining $C_d$ values.

(7) If the standard deviation of the remaining $C_d$ values is less than or equal to 0.3% of the mean of the remaining $C_d$, use that mean $C_d$ in Eq. 1065.642–6, and use the CFV values only down to the lowest $r$ associated with the remaining $C_d$.

(8) If the standard deviation of the remaining $C_d$ still exceeds 0.3% of the mean of the remaining $C_d$ values, repeat the steps in paragraph (e)(4) through (8) of this section.

■ 112. Section 1065.642 is amended by revising paragraph (b) to read as follows:

**§ 1065.642 SSV, CFV, and PDP molar flow rate calculations.**

* * * * *

(b) *SSV molar flow rate.* Based on the $C_d$ versus Re# equation you determined according to § 1065.640, calculate SSV molar flow rate, $\dot{n}$ during an emission test as follows:

$$\dot{n} = C_d \cdot C_f \cdot \frac{A_t \cdot p_{in}}{\sqrt{Z \cdot M_{mix} \cdot R \cdot T_{in}}} \qquad \text{Eq. 1065.642-3}$$

Example:

$A_t$ = 0.01824 m²
$p_{in}$ = 99132 Pa
$Z$ = 1
$M_{mix}$ = 28.7805 g/mol = 0.0287805 kg/mol
$R$ = 8.314472 J/(mol·K)
$T_{in}$ = 298.15 K
$Re^{\#}$ = 7.232·10
$y$ = 1.399
β = 0.8
$\Delta p$ = 2.312 kPa
Using Eq. 1065.640–7,
$r_{ssv}$ = 0.997
Using Eq. 1065.640–6,
$C_f$ = 0.274
Using Eq. 1065.640–5,
$C_d$ = 0.990

$$\dot{n} = 0.990 \cdot 0.274 \cdot \frac{0.01824 \cdot 99132}{\sqrt{1 \cdot 0.0287805 \cdot 8.314472 \cdot 298.15}}$$

$\dot{n}$= 58.173 mol/s

* * * * *

■ 113. A new § 1065.644 is added to read as follows:

**§ 1065.644 Vacuum-decay leak rate.**

This section describes how to calculate the leak rate of a vacuum-decay leak verification, which is described in § 1065.345(e). Use Eq. 1065.644–1 to calculate the leak rate, $\dot{n}_{leak}$, and compare it to the criterion specified in § 1065.345(e).

$$\dot{n}_{leak} = \frac{V_{vac}}{R} \cdot \frac{\left(\frac{p_2}{T_2} - \frac{p_1}{T_1}\right)}{(t_2 - t_1)} \qquad \text{Eq. 1065.644-1}$$

Where:

$V_{vac}$ = geometric volume of the vacuum-side of the sampling system.
$R$ = molar gas constant.
$p_2$ = Vacuum-side absolute pressure at time $t_2$.
$T_2$ = Vacuum-side absolute temperature at time $t_2$.
$p_1$ = Vacuum-side absolute pressure at time $t^1$.
$T_1$ = Vacuum-side absolute temperature at time $t_1$.
$t_2$ = time at completion of vacuum-decay leak verification test.
$t_1$ = time at start of vacuum-decay leak verification test.

Example:

$V_{vac}$ = 2.0000 L = 0.00200 m³
$R$ = 8.314472 J/(mol·K)
$p_2$ = 50.600 kPa = 50600 Pa
$T_2$ = 293.15 K
$p_1$ = 25.300 kPa = 25300 Pa
$T_1$ = 293.15 K
$t_2$ = 10:57:35 AM
$t_1$ = 10:56:25 AM

$$\dot{n}_{leak} = \frac{0.0002}{8.314472} \cdot \frac{\left(\frac{50600}{293.15} - \frac{25300}{293.15}\right)}{(10:57:35 - 10:56:25)}$$

$$\dot{n}_{leak} = \frac{0.00200}{8.314472} \cdot \frac{86.304}{70}$$

$$\dot{n}_{leak} = 0.00030 \text{ mol/s}$$

■ 114. Section 1065.645 is revised to read as follows:

**§ 1065.645 Amount of water in an ideal gas.**

This section describes how to determine the amount of water in an ideal gas, which you need for various performance verifications and emission calculations. Use the equation for the vapor pressure of water in paragraph (a) of this section or another appropriate equation and, depending on whether you measure dewpoint or relative humidity, perform one of the

calculations in paragraph (b) or (c) of this section.

(a) *Vapor pressure of water.* Calculate the vapor pressure of water for a given saturation temperature condition, $T_{sat}$, as follows, or use good engineering judgment to use a different relationship of the vapor pressure of water to a given saturation temperature condition:

(1) For humidity measurements made at ambient temperatures from (0 to 100) °C, or for humidity measurements made over super-cooled water at ambient temperatures from (−50 to 0) °C, use the following equation:

$$-\log_{10}\left(p_{H2O}\right)=10.79574\cdot\left(\frac{273.16}{T_{sat}}-1\right)+5.02800\cdot\log_{10}\left(\frac{T_{sat}}{273.16}\right)+1.50475\cdot10^{-4}\cdot\left(10^{-8.2969\cdot\left(\frac{T_{sat}}{273.16}-1\right)}-1\right)$$

$$+0.42873\cdot10^{-3}\cdot\left(1-10^{-4.76955\left(1-\frac{273.16}{T_{sat}}\right)}\right)+0.21386 \qquad \text{Eq. 1065.645-1}$$

Where:

$p_{H20}$ = vapor pressure of water at saturation temperature condition, kPa.

$T_{sat}$ = saturation temperature of water at measured conditions, K.

Example:

$T_{sat}$ = 9.5 °C

$T_{dsat}$= 9.5 + 273.15 = 282.65 K

$$-\log_{10}\left(p_{H2O}\right)=10.79574\cdot\left(\frac{273.16}{282.65}-1\right)+5.02800\cdot\log_{10}\left(\frac{282.65}{273.16}\right)+1.50475\cdot10^{-4}\cdot\left(10^{-8.2969\cdot\left(\frac{282.65}{273.16}-1\right)}-1\right)$$

$$+0.42873\cdot10^{-3}\cdot\left(1-10^{-4.76955\left(1-\frac{273.16}{282.65}\right)}\right)+0.21386$$

$-\log_{10}(p_{H20}) = -0.073974$

$p_{H20} = 10^{0.073974} = 1.18569$ kPa

(2) For humidity measurements over ice at ambient temperatures from (−100 to 0) °C, use the following equation:

$$-\log_{10}\left(p_{sat}\right)=9.09685\cdot\left(\frac{273.16}{T_{sat}}-1\right)+3.56654\cdot\log_{10}\left(\frac{273.16}{T_{sat}}\right)+0.87682\cdot\left(\frac{T_{sat}}{273.16}-1\right)+0.21386 \qquad \text{Eq. 1065.645-2}$$

Example:

$T_{ice}$ = −15.4 °C

$T_{ice}$ = −15.4 + 273.15 = 257.75 K

$$-\log_{10}\left(p_{sat}\right)=9.09685\cdot\left(\frac{273.16}{257.75}-1\right)+$$

$$3.56654\cdot\log_{10}\left(\frac{273.16}{257.75}\right)+$$

$$0.87682\cdot\left(\frac{257.75}{273.16}-1\right)+0.21386$$

$-\log_{10}(p_{H2O}) = -0.79821$

$p_{H2O} = 10^{0.79821} = 0.15914$ kPa

(b) *Dewpoint.* If you measure humidity as a dewpoint, determine the amount of water in an ideal gas, $x_{H2O}$, as follows:

$$x_{H2O}=\frac{p_{H2O}}{p_{abs}} \qquad \text{Eq. 1065.645-3}$$

Where:

$x_{H2O}$ = amount of water in an ideal gas.

$p_{H2O}$ = water vapor pressure at the measured dewpoint, $T_{sat} = T_{dew}$.

$p_{abs}$ = wet static absolute pressure at the location of your dewpoint measurement.

Example:

$p_{abs}$ = 99.980 kPa

$T_{sat} = T_{dew}$ = 9.5 °C

Using Eq. 1065.645–2,

$p_{H2O}$ = 1.18489 kPa

$x_{H2O}$ = 1.18489/99.980

$x_{H2O}$ = 0.011851 mol/mol

(c) *Relative humidity.* If you measure humidity as a relative humidity, RH %, determine the amount of water in an ideal gas, $x_{H2O}$, as follows:

$$x_{H2O}=\frac{RH\%\cdot p_{H2O}}{p_{abs}} \qquad \text{Eq. 1065.645-4}$$

Where:

$x_{H2O}$ = amount of water in an ideal gas.

*RH* % = relative humidity.

$p_{H2O}$ = water vapor pressure at 100% relative humidity at the location of your relative humidity measurement, $T_{sat} = T_{amb}$.

$p_{abs}$ = wet static absolute pressure at the location of your relative humidity measurement.

Example:

*RH* % = 50.77%

$p_{abs}$ = 99.980 kPa

$T_{sat} = T_{amb}$ = 20 °C

Using Eq. 1065.645–2,

$p_{H2O}$ = 2.3371 kPa

$x_{H2O}$ = (50.77% ·2.3371)/99.980

$x_{H2O}$ = 0.011868 mol/mol

■ 115. Section 1065.650 is revised to read as follows:

**§ 1065.650 Emission calculations.**

(a) *General.* Calculate brake-specific emissions over each test interval in a duty cycle. Refer to the standard-setting part for any calculations you might need to determine a composite result, such as a calculation that weights and sums the

results of individual test intervals in a duty cycle. For summations of continuous signals, each indexed value (i.e., ''*i*'') represents (or approximates) the mean value of the parameter for its respective time interval, delta-t.

(b) We specify three alternative ways to calculate brake-specific emissions, as follows:

(1) For any testing, you may calculate the total mass of emissions, as described in paragraph (c) of this section, and divide it by the total work generated over the test interval, as described in paragraph (d) of this section, using the following equation:

$$e = \frac{m}{W} \qquad \text{Eq. 1065.650-1}$$

Example:
$m_{NOx}$ = 64.975 g
$W$ = 25.783 kW·hr
$e_{NOx}$ = 64.975/25.783
$e_{NOx}$ = 2.520 g/(kW·hr)

(2) For discrete-mode steady-state testing, you may calculate the ratio of emission mass rate to power, as described in paragraph (e) of this section, using the following equation:

$$e = \frac{\bar{\dot{m}}}{\bar{P}} \qquad \text{Eq. 1065.650-2}$$

(3) For field testing, you may calculate the ratio of total mass to total work, where these individual values are determined as described in paragraph (f) of this section. You may also use this approach for laboratory testing, consistent with good engineering judgment. This is a special case in which you use a signal linearly proportional to raw exhaust molar flow rate to determine a value proportional to total emissions. You then use the same linearly proportional signal to determine total work using a chemical balance of fuel, intake air, and exhaust as described in § 1065.655, plus information about your engine's brake-specific fuel consumption. Under this method, flow meters need not meet accuracy specifications, but they must meet the applicable linearity and repeatability specifications in subpart D or subpart J of this part. The result is a brake-specific emission value calculated as follows:

$$e = \frac{\tilde{m}}{\tilde{W}} \qquad \text{Eq. 1065.650-3}$$

Example:
$\tilde{m}$ = 805.5 ~g
$\tilde{W}$ = 52.102 ~kW·hr
$e_{CO}$ = 805.5/52.102
$e_{CO}$ = 2.520 g/(kW·hr)

(c) *Total mass of emissions.* To calculate the total mass of an emission, multiply a concentration by its respective flow. For all systems, make preliminary calculations as described in paragraph (c)(1) of this section, then use the method in paragraphs (c)(2) through (4) of this section that is appropriate for your system. Calculate the total mass of emissions as follows:

(1) *Concentration corrections.* Perform the following sequence of preliminary calculations on recorded concentrations:

(i) Correct all THC and $CH_4$ concentrations, including continuous readings, sample bags readings, and dilution air background readings, for initial contamination, as described in § 1065.660(a).

(ii) Correct all concentrations measured on a ''dry'' basis to a ''wet'' basis, including dilution air background concentrations, as described in § 1065.659.

(iii) Calculate all THC and NMHC concentrations, including dilution air background concentrations, as described in § 1065.660.

(iv) For emission testing with an oxygenated fuel, calculate any HC concentrations, including dilution air background concentrations, as described in § 1065.665. See subpart I of this part for testing with oxygenated fuels.

(v) Correct all the $NO_X$ concentrations, including dilution air background concentrations, for intake-air humidity as described in § 1065.670.

(vi) Compare the background corrected mass of NMHC to background corrected mass of THC. If the background corrected mass of NMHC is greater than 0.98 times the background corrected mass of THC, take the background corrected mass of NMHC to be 0.98 times the background corrected mass of THC. If you omit the NMHC calculations as described in § 1065.660(b)(1), take the background corrected mass of NMHC to be 0.98 times the background corrected mass of THC.

(vii) Calculate brake-specific emissions before and after correcting for drift, including dilution air background concentrations, according to § 1065.672.

(2) *Continuous sampling.* For continuous sampling, you must frequently record a continuously updated concentration signal. You may measure this concentration from a changing flow rate or a constant flow rate (including discrete-mode steady-state testing), as follows:

(i) *Varying flow rate.* If you continuously sample from a changing exhaust flow rate, time align and then multiply concentration measurements by the flow rate from which you extracted it. Use good engineering judgment to time align flow and concentration data to match $t_{50}$ rise or fall times to within ±1 s. We consider the following to be examples of changing flows that require a continuous multiplication of concentration times molar flow rate: raw exhaust, exhaust diluted with a constant flow rate of dilution air, and CVS dilution with a CVS flowmeter that does not have an upstream heat exchanger or electronic flow control. This multiplication results in the flow rate of the emission itself. Integrate the emission flow rate over a test interval to determine the total emission. If the total emission is a molar quantity, convert this quantity to a mass by multiplying it by its molar mass, *M*. The result is the mass of the emission, *m*. Calculate *m* for continuous sampling with variable flow using the following equations:

$$m = M \cdot \sum_{i=1}^{N} x_i \cdot \dot{n}_i \cdot \Delta t \qquad \text{Eq. 1065.650-4}$$

Where:

$$\Delta t = 1/f_{\text{record}} \qquad \text{Eq. 1065.650-5}$$

Example:
$M_{NMHC}$ = 13.875389 g/mol
$N$ = 1200
$x_{NMHC1}$ = 84.5 μmol/mol = $84.5 \cdot 10^{-6}$ mol/mol
$x_{NMHC2}$ = 86.0 μmol/mol = $86.0 \cdot 10^{-6}$ mol/mol
$\dot{n}_{exh1}$ = 2.876 mol/s
$\dot{n}_{exh2}$ = 2.224 mol/s
$f_{record}$ = 1 Hz
Using Eq. 1065.650–5,
$\Delta t$ = 1/1 =1 s
$m_{NMHC} = 13.875389 \cdot (84.5 \cdot 10^{-6} \cdot 2.876 + 86.0 \cdot 10^{-6} \cdot 2.224 + \ldots + x_{NMHC1200} \cdot \dot{n}_{exh}) \cdot 1$
$m_{NMHC}$ = 25.53 g

(ii) *Constant flow rate.* If you continuously sample from a constant exhaust flow rate, use the same emission calculations described in paragraph (c)(2)(i) of this section or calculate the mean or flow-weighted concentration recorded over the test interval and treat the mean as a batch sample, as described in paragraph (c)(3)(ii) of this section. We consider the following to be examples of constant exhaust flows: CVS diluted exhaust with a CVS flowmeter that has either an upstream heat exchanger, electronic flow control, or both.

(3) *Batch sampling.* For batch sampling, the concentration is a single value from a proportionally extracted batch sample (such as a bag, filter, impinger, or cartridge). In this case, multiply the mean concentration of the batch sample by the total flow from which the sample was extracted. You may calculate total flow by integrating a changing flow rate or by determining

the mean of a constant flow rate, as follows:

(i) *Varying flow rate.* If you collect a batch sample from a changing exhaust flow rate, extract a sample proportional to the changing exhaust flow rate. We consider the following to be examples of changing flows that require proportional sampling: Raw exhaust, exhaust diluted with a constant flow rate of dilution air, and CVS dilution with a CVS flowmeter that does not have an upstream heat exchanger or electronic flow control. Integrate the flow rate over a test interval to determine the total flow from which you extracted the proportional sample. Multiply the mean concentration of the batch sample by the total flow from which the sample was extracted. If the total emission is a molar quantity, convert this quantity to a mass by multiplying it by its molar mass, *M*. The result is the mass of the emission, *m*. In the case of PM emissions, where the mean PM concentration is already in units of mass per mole of sample, $\bar{M}_{PM}$, simply multiply it by the total flow. The result is the total mass of PM, $m_{PM}$. Calculate *m* for batch sampling with variable flow using the following equation:

$$m = M \cdot \bar{x} \cdot \sum_{i=1}^{N} \dot{n}_i \cdot \Delta t \qquad \text{Eq. 1065.650-6}$$

Example:

$M_{NOx}$ = 46.0055 g/mol
$N$ = 9000
$\bar{x}_{NOx}$ = 85.6 μmol/mol = 85.6 · $10^{-6}$ mol/mol
$\dot{n}_{dexh1}$ = 25.534 mol/s
$\dot{n}_{dexh2}$ = 26.950 mol/s
$f_{record}$ = 5 Hz
Using Eq. 1065.650–5,
$\Delta t$ = 1/5 = 0.2
$m_{NOx}$ = 46.0055 · 85.6 · $10^{-6}$ · (25.534 + 26.950 + ... + $\dot{n}_{exh9000}$) · 0.2
$m_{NOx}$ = 4.201 g

(ii) *Constant flow rate.* If you batch sample from a constant exhaust flow rate, extract a sample at a proportional or constant flow rate. We consider the following to be examples of constant exhaust flows: CVS diluted exhaust with a CVS flow meter that has either an upstream heat exchanger, electronic flow control, or both. Determine the mean molar flow rate from which you extracted the constant flow rate sample. Multiply the mean concentration of the batch sample by the mean molar flow rate of the exhaust from which the sample was extracted, and multiply the result by the time of the test interval. If the total emission is a molar quantity, convert this quantity to a mass by multiplying it by its molar mass, *M*. The result is the mass of the emission, *m*. In the case of PM emissions, where the mean PM concentration is already in units of mass per mole of sample, $\bar{M}_{PM}$, simply multiply it by the total flow, and the result is the total mass of PM, $m_{PM}$. Calculate *m* for sampling with constant flow using the following equations:

$$m = M \cdot \bar{x} \cdot \bar{\dot{n}} \cdot \Delta t \qquad \text{Eq. 1065.650-7}$$

and for PM or any other analysis of a batch sample that yields a mass per mole of sample,

$$\bar{M} = M \cdot \bar{x} \qquad \text{Eq. 1065.650-8}$$

Example:

$\bar{M}_{PM}$ = 144.0 μg/mol = 144.0 · $10^{-6}$ g/mol
$\bar{\dot{n}}_{dexh}$ = 57.692 mol/s
$\Delta t$ = 1200 s
$m_{PM}$ = 144.0 · $10^{-6}$ · 57.692 · 1200
$m_{PM}$ = 9.9692 g

(4) *Additional provisions for diluted exhaust sampling; continuous or batch.* The following additional provisions apply for sampling emissions from diluted exhaust:

(i) For sampling with a constant dilution ratio (DR) of diluted exhaust versus exhaust flow (e.g., secondary dilution for PM sampling), calculate m using the following equation:

$$m = m_{dil} \cdot (DR) \qquad \text{Eq. 1065.650-9}$$

Example:

$m_{PMdil}$ = 6.853 g
$DR$ = 6:1
$m_{PM}$ = 6.853 · (6)
$m_{PM}$ = 41.118 g

(ii) For continuous or batch sampling, you may measure background emissions in the dilution air. You may then subtract the measured background emissions, as described in § 1065.667.

(d) *Total work.* To calculate total work from the engine's primary output shaft, numerically integrate feedback power over a test interval. Before integrating, adjust the speed and torque data for the time alignment used in § 1065.514(c). Any advance or delay used on the feedback signals for cycle validation must also be used for calculating work. Account for work of accessories according to § 1065.110. Exclude any work during cranking and starting. Exclude work during actual motoring operation (negative feedback torques), unless the engine was connected to one or more energy storage devices. Examples of such energy storage devices include hybrid powertrain batteries and hydraulic accumulators, like the ones illustrated in Figure 1 of § 1065.210. Exclude any work during reference zero-load idle periods (0% speed or idle speed with 0 N·m reference torque). Note, that there must be two consecutive reference zero load idle points to establish a period where this applies. Include work during idle points with simulated minimum torque such as Curb Idle Transmissions Torque (CITT) for automatic transmissions in ''drive''. The work calculation method described in paragraphs (b)(1) though (7) of this section meets these requirements using rectangular integration. You may use other logic that gives equivalent results. For example, you may use a trapezoidal integration method as described in paragraph (b)(8) of this section.

(1) Time align the recorded feedback speed and torque values by the amount used in § 1065.514(c).

(2) Calculate shaft power at each point during the test interval by multiplying all the recorded feedback engine speeds by their respective feedback torques.

(3) Adjust (reduce) the shaft power values for accessories according to § 1065.110.

(4) Set all power values during any cranking or starting period to zero. See § 1065.525 for more information about engine cranking.

(5) Set all negative power values to zero, unless the engine was connected to one or more energy storage devices. If the engine was tested with an energy storage device, leave negative power values unaltered.

(6) Set all power values to zero during idle periods with a corresponding reference torque of 0 N·m.

(7) Integrate the resulting values for power over the test interval. Calculate total work as follows:

$$W = \sum_{i=1}^{N} P_i \cdot \Delta t \qquad \text{Eq. 1065.650-10}$$

$$P_i = f_{ni} \cdot T_i \qquad \text{Eq. 1065.650-11}$$

Example:

N = 9000
$f_{n1}$ = 1800.2 rev/min
$f_{n2}$ = 1805.8 rev/min
$T_1$ = 177.23 N·m
$T_2$ = 175.00 N·m
$C_{rev}$ = 2 · π rad/rev
$C_{t1}$ = 60 s/min
$C_p$ = 1000 (N·m·rad/s)/kW
$f_{record}$ = 5 Hz
$C_{t2}$ = 3600 s/hr

$$P_1 = \frac{1800.2 \cdot 177.23 \cdot 2 \cdot 3.14159}{60 \cdot 1000}$$

$P_1$ = 33.41 kW
$P_2$ = 33.09 kW
Using Eq. 1065.650–5,
$\Delta t$ = 1/5 = 0.2 s

$$W = \frac{(33.41 + 33.09 + ... + P_{9000}) \cdot 0.2}{3600}$$

$W$ = 16.875 kW·hr

(8) You may use a trapezoidal integration method instead of the

rectangular integration described in this paragraph (b). To do this, you must integrate the fraction of work between points where the torque is positive. You may assume that speed and torque are linear between data points. You may not set negative values to zero before running the integration.

(e) *Steady-state mass rate divided by power.* To determine steady-state brake-specific emissions for a test interval as described in paragraph (b)(2) of this section, calculate the mean steady-state mass rate of the emission, $\bar{\dot{m}}$, and the mean steady-state power, $\bar{P}$ as follows:

(1) To calculate $\bar{\dot{m}}$, multiply its mean concentration, $\bar{x}$, by its corresponding mean molar flow rate, $\bar{\dot{n}}$. If the result is a molar flow rate, convert this quantity to a mass rate by multiplying it by its molar mass, $M$. The result is the mean mass rate of the emission, $\bar{\dot{m}}$. In the case of PM emissions, where the mean PM concentration is already in units of mass per mole of sample, $\bar{M}_{PM}$, simply multiply it by the mean molar flow rate, $\bar{\dot{n}}$. The result is the mass rate of PM, $\dot{m}_{PM}$. Calculate $\bar{\dot{m}}$ using the following equation:

$$\bar{\dot{m}} = M \cdot \bar{x} \cdot \bar{\dot{n}} \qquad \text{Eq. 1065.650-12}$$

(2) Calculate $\bar{P}$ using the following equation:

$$\bar{P} = \bar{f}_n \cdot \bar{T} \qquad \text{Eq. 1065.650-13}$$

(3) Divide emission mass rate by power to calculate a brake-specific emission result as described in paragraph (b)(2) of this section.

(4) The following example shows how to calculate mass of emissions using mean mass rate and mean power:

$M_{CO}$ = 28.0101 g/mol

$\bar{x}_{CO}$ = 12.00 mmol/mol = 0.01200 mol/mol

$\bar{\dot{n}}$ = 1.530 mol/s

$\bar{f}_n$ = 3584.5 rev/min = 375.37 rad/s

$\bar{T}$ = 121.50 N·m

$\bar{\dot{m}}$ = 28.0101·0.01200·1.530

$\bar{\dot{m}}$ = 0.514 g/s = 1850.4 g/hr

$\bar{P}$ = 121.5·375.37

$\bar{P}$ = 45607

$W$ = 45.607 kW

$e_{CO}$ = 1850.4/45.61

$e_{CO}$ = 40.57 g/(kW·hr)

(f) *Ratio of total mass of emissions to total work.* To determine brake-specific emissions for a test interval as described in paragraph (b)(3) of this section, calculate a value proportional to the total mass of each emission. Divide each proportional value by a value that is similarly proportional to total work.

(1) *Total mass.* To determine a value proportional to the total mass of an emission, determine total mass as described in paragraph (c) of this section, except substitute for the molar flow rate, $\dot{n}$, or the total flow, $n$, with a signal that is linearly proportional to molar flow rate, $\tilde{\dot{n}}$, or linearly proportional to total flow, $\tilde{n}$ as follows:

$$\tilde{\dot{m}}_{\text{fuel}i} = \frac{1}{w_{\text{fuel}}} \cdot \frac{M_C \cdot \tilde{\dot{n}}_i \cdot x_{\text{Ccombdry}i}}{1 + x_{\text{H2Oexhdry}i}} \qquad \text{Eq. 1065.650-14}$$

(2) *Total work.* To calculate a value proportional to total work over a test interval, integrate a value that is proportional to power. Use information about the brake-specific fuel consumption of your engine, $e_{\text{fuel}}$, to convert a signal proportional to fuel flow rate to a signal proportional to power. To determine a signal proportional to fuel flow rate, divide a signal that is proportional to the mass rate of carbon products by the fraction of carbon in your fuel, $w_c$. For your fuel, you may use a measured $w_c$ or you may use the default values in Table 1 of § 1065.655. Calculate the mass rate of carbon from the amount of carbon and water in the exhaust, which you determine with a chemical balance of fuel, intake air, and exhaust as described in § 1065.655. In the chemical balance, you must use concentrations from the flow that generated the signal proportional to molar flow rate, $\tilde{\dot{n}}$, in paragraph (e)(1) of this section. Calculate a value proportional to total work as follows:

$$W = \sum_{i=1}^{N} \tilde{P}_i \cdot \Delta t \qquad \text{Eq. 1065.650-15}$$

Where:

$$\tilde{P}_i = \frac{\tilde{\dot{m}}_{\text{fuel}i}}{e_{\text{fuel}}} \qquad \text{Eq. 1065.650-16}$$

(3) *Brake-specific emissions.* Divide the value proportional to total mass by the value proportional to total work to determine brake-specific emissions, as described in paragraph (b)(3) of this section.

(4) *Example.* The following example shows how to calculate mass of emissions using proportional values:

$N$ = 3000

$f_{\text{record}}$ = 5 Hz

$e_{\text{fuel}}$ = 285 g/(kW·hr)

$w_{\text{fuel}}$ = 0.869 g/g

$M_c$ = 12.0107 g/mol

$\dot{n}_1$ = 3.922 ~mol/s = 14119.2 mol/hr

$x_{\text{Ccombdry1}}$ = 91.634 mmol/mol = 0.091634 mol/mol

$x_{\text{H2Oexh1}}$ = 27.21 mmol/mol = 0.02721 mol/mol

Using Eq. 1065.650–5,

$\Delta t$ = 0.2 s

$$\tilde{W} = \frac{12.0107\left[\frac{3.922 \cdot 0.091634}{1 + 0.02721} + \frac{\tilde{\dot{n}}_2 \cdot x_{\text{Ccombdry2}}}{1 + x_{\text{H2Oexh2}}} + \ldots + \frac{\tilde{\dot{n}}_{3000} \cdot x_{\text{Ccombdry3000}}}{1 + x_{\text{H2Oexh3000}}}\right] \cdot 0.2}{285 \cdot 0.869}$$

$\tilde{W}$ = 5.09 ~(kW·hr)

(g) *Rounding.* Round emission values only after all calculations are complete and the result is in g/(kW·hr) or units equivalent to the units of the standard, such as g/(hp·hr). See the definition of ''Round'' in § 1065.1001.

■ 116. Section 1065.655 is revised to read as follows:

**§ 1065.655 Chemical balances of fuel, intake air, and exhaust.**

(a) *General.* Chemical balances of fuel, intake air, and exhaust may be used to calculate flows, the amount of water in their flows, and the wet concentration of constituents in their flows. With one flow rate of either fuel, intake air, or exhaust, you may use chemical balances to determine the flows of the other two. For example, you may use chemical balances along with either intake air or fuel flow to determine raw exhaust flow.

(b) *Procedures that require chemical balances.* We require chemical balances when you determine the following:

(1) A value proportional to total work, $\tilde{W}$, when you choose to determine brake-specific emissions as described in § 1065.650(e).

(2) The amount of water in a raw or diluted exhaust flow, $x_{H2Oexh}$, when you do not measure the amount of water to correct for the amount of water removed by a sampling system. Correct for removed water according to § 1065.659(c)(2).

(3) The flow-weighted mean fraction of dilution air in diluted exhaust, $x_{dil/exh}$, when you do not measure dilution air flow to correct for background emissions as described in § 1065.667(c). Note that if you use chemical balances for this purpose, you are assuming that your exhaust is stoichiometric, even if it is not.

(c) *Chemical balance procedure.* The calculations for a chemical balance involve a system of equations that require iteration. We recommend using a computer to solve this system of equations. You must guess the initial values of up to three quantities: The amount of water in the measured flow, $x_{H2Oexh}$, fraction of dilution air in diluted exhaust, $x_{dil/exh}$, and the amount of products on a $C_1$ basis per dry mole of dry measured flow, $x_{Ccombdry}$. You may use time-weighted mean values of combustion air humidity and dilution air humidity in the chemical balance; as long as your combustion air and dilution air humidities remain within tolerances of ± 0.0025 mol/mol of their respective mean values over the test interval. For each emission concentration, $x$, and amount of water, $x_{H2Oexh}$, you must determine their completely dry concentrations, $x_{dry}$ and $x_{H2Oexhdry}$. You must also use your fuel's atomic hydrogen-to-carbon ratio, α, and oxygen-to-carbon ratio, β. For your fuel, you may measure α and β or you may use the default values in Table 1 of § 1065.650. Use the following steps to complete a chemical balance:

(1) Convert your measured concentrations such as, $x_{CO2meas}$, $x_{NOmeas}$, and $x_{H2Oint}$, to dry concentrations by dividing them by one minus the amount of water present during their respective measurements; for example: $x_{H2OxCO2meas}$, $x_{H2OxNOmeas}$, and $x_{H2Oint}$. If the amount of water present during a ''wet'' measurement is the same as the unknown amount of water in the exhaust flow, $x_{H2Oexh}$, iteratively solve for that value in the system of equations. If you measure only total $NO_X$ and not NO and $NO_2$ separately, use good engineering judgment to estimate a split in your total $NO_X$ concentration between NO and $NO_2$ for the chemical balances. For example, if you measure emissions from a stoichiometric spark-ignition engine, you may assume all $NO_X$ is NO. For a compression-ignition engine, you may assume that your molar concentration of $NO_X$, $x_{NOx}$, is 75% NO and 25% $NO_2$. For $NO_2$ storage aftertreatment systems, you may assume $x_{NOx}$ is 25% NO and 75% $NO_2$. Note that for calculating the mass of $NO_X$ emissions, you must use the molar mass of $NO_2$ for the effective molar mass of all $NO_X$ species, regardless of the actual $NO_2$ fraction of $NO_X$.

(2) Enter the equations in paragraph (c)(4) of this section into a computer program to iteratively solve for $x_{H2Oexh}$, $x_{Ccombdry}$, and $x_{dil/exh}$. Use good engineering judgment to guess initial values for $x_{H2Oexh}$, $x_{Ccombdry}$, and $x_{dil/exh}$. We recommend guessing an initial amount of water that is about twice the amount of water in your intake or dilution air. We recommend guessing an initial value of $x_{Ccombdry}$ as the sum of your measured $CO_2$, CO, and THC values. We also recommend guessing an initial $x_{dil/exh}$ between 0.75 and 0.95, such as 0.8. Iterate values in the system of equations until the most recently updated guesses are all within ± 1% of their respective most recently calculated values.

(3) Use the following symbols and subscripts in the equations for this paragraph (c):

$x_{dil/exh}$ = Amount of dilution gas or excess air per mole of exhaust.

$x_{H2Oexh}$ = Amount of water in exhaust per mole of exhaust.

$x_{Ccombdry}$ = Amount of carbon from fuel in the exhaust per mole of dry exhaust.

$x_{H2Oexhdry}$ = Amount of water in exhaust per dry mole of dry exhaust.

$x_{prod/intdry}$ = Amount of dry stoichiometric products per dry mole of intake air.

$x_{dil/exhdry}$ = Amount of dilution gas and/or excess air per mole of dry exhaust.

$x_{int/exhdry}$ = Amount of intake air required to produce actual combustion products per mole of dry (raw or diluted) exhaust.

$x_{raw/exhdry}$ = Amount of undiluted exhaust, without excess air, per mole of dry (raw or diluted) exhaust.

$x_{O2int}$ = Amount of intake air $O_2$ per mole of intake air.

$x_{CO2intdry}$ = Amount of intake air $CO_2$ per mole of dry intake air. You may use $x_{CO2intdry}$ = 375 μmol/mol, but we recommend measuring the actual concentration in the intake air.

$x_{H2Ointdry}$ = Amount of intake air $H_2O$ per mole of dry intake air.

$x_{CO2int}$ = Amount of intake air $CO_2$ per mole of intake air.

$x_{CO2dil}$ = Amount of dilution gas $CO_2$ per mole of dilution gas.

$x_{CO2dildry}$ = Amount of dilution gas $CO_2$ per mole of dry dilution gas. If you use air as diluent, you may use $x_{CO2dildry}$ = 375 μmol/mol, but we recommend measuring the actual concentration in the intake air.

$x_{H2Odildry}$ = Amount of dilution gas $H_2O$ per mole of dry dilution gas.

$x_{H2Odil}$ = Amount of dilution gas $H_2O$ per mole of dilution gas.

$x_{[emission]meas}$ = Amount of measured emission in the sample at the respective gas analyzer.

$x_{[emission]dry}$ = Amount of emission per dry mole of dry sample.

$x_{H2O[emission]meas}$ = Amount of water in sample at emission-detection location. Measure or estimate these values according to § 1065.145(d)(2).

$x_{H2Oint}$ = Amount of water in the intake air, based on a humidity measurement of intake air.

α = Atomic hydrogen-to-carbon ratio in fuel.

β = Atomic oxygen-to-carbon ratio in fuel.

(4) Use the following equations to iteratively solve for $x_{dil/exh}$, $x_{H2Oexh}$, and $x_{Ccombdry}$:

$$x_{dil/exh} = 1 - \frac{x_{raw/exhdry}}{1 + x_{H2Oexhdry}} \quad \text{Eq. 1065.655-1}$$

$$x_{H2Oexh} = \frac{x_{H2Oexhdry}}{1 + x_{H2Oexhdry}} \quad \text{Eq. 1065.655-2}$$

$$x_{Ccombdry} = x_{CO2dry} + x_{COdry} + x_{THCdry} - x_{CO2dil} \cdot x_{dil/exhdry} - x_{CO2int} \cdot x_{int/exhdry} \quad \text{Eq. 1065.655-3}$$

$$x_{H2Oexhdry} = \frac{\alpha}{2}\left(x_{Ccombdry} - x_{THCdry}\right) + x_{H2Odil} \cdot x_{dil/exhdry} + x_{H2Oint} \cdot x_{int/exhdry} \quad \text{Eq. 1065.655-4}$$

$$x_{\mathrm{dil/exhdry}} = \frac{x_{\mathrm{dil/exh}}}{1 - x_{\mathrm{H2Oexh}}} \qquad \text{Eq. 1065.655-5}$$

$$x_{\mathrm{int/exhdry}} = \frac{1}{2 \cdot x_{\mathrm{O2int}}} \left( \left( \frac{\alpha}{2} - \beta + 2 \right) \cdot \left( x_{\mathrm{Ccombdry}} - x_{\mathrm{THCdry}} \right) - \left( x_{\mathrm{COdry}} - x_{\mathrm{NOdry}} - 2x_{\mathrm{NO2dry}} \right) \right) \qquad \text{Eq. 1065.655-6}$$

$$x_{\mathrm{raw/exhdry}} = \frac{1}{2} \left( \left( \frac{\alpha}{2} + \beta \right) \cdot \left( x_{\mathrm{Ccombdry}} - x_{\mathrm{THCdry}} \right) + \left( 2x_{\mathrm{THCdry}} + x_{\mathrm{COdry}} - x_{\mathrm{NO2dry}} \right) \right) + x_{\mathrm{int/exhdry}} \qquad \text{Eq. 1065.655-7}$$

$$x_{\mathrm{O2int}} = \frac{0.209820 - x_{\mathrm{CO2intdry}}}{1 + x_{\mathrm{H2Ointdry}}} \qquad \text{Eq. 1065.655-8}$$

$$x_{\mathrm{CO2int}} = \frac{x_{\mathrm{CO2intdry}}}{1 + x_{\mathrm{H2Ointdry}}} \qquad \text{Eq. 1065.655-9}$$

$$x_{\mathrm{H2Ointdry}} = \frac{x_{\mathrm{H2Oint}}}{1 - x_{\mathrm{H2Oint}}} \qquad \text{Eq. 1065.655-10}$$

$$x_{\mathrm{CO2dil}} = \frac{x_{\mathrm{CO2dildry}}}{1 + x_{\mathrm{H2Odildry}}} \qquad \text{Eq. 1065.655-11}$$

$$x_{\mathrm{H2Odildry}} = \frac{x_{\mathrm{H2Odil}}}{1 - x_{\mathrm{H2Odil}}} \qquad \text{Eq. 1065.655-12}$$

$$x_{\mathrm{COdry}} = \frac{x_{\mathrm{COmeas}}}{1 - x_{\mathrm{H2OCOmeas}}} \qquad \text{Eq. 1065.655-13}$$

$$x_{\mathrm{CO2dry}} = \frac{x_{\mathrm{CO2meas}}}{1 - x_{\mathrm{H2OCO2meas}}} \qquad \text{Eq. 1065.655-14}$$

$$x_{\mathrm{NOdry}} = \frac{x_{\mathrm{NOmeas}}}{1 - x_{\mathrm{H2ONOmeas}}} \qquad \text{Eq. 1065.655-15}$$

$$x_{\mathrm{NO2dry}} = \frac{x_{\mathrm{NO2meas}}}{1 - x_{\mathrm{H2ONO2meas}}} \qquad \text{Eq. 1065.655-16}$$

$$x_{\mathrm{THCdry}} = \frac{x_{\mathrm{THCmeas}}}{1 - x_{\mathrm{H2OTHCmeas}}} \qquad \text{Eq. 1065.655-17}$$

(5) The following example is a solution for $x_{dil/exh}$, $x_{H2Oexh}$, and $x_{Ccombdry}$ using the equations in paragraph (c)(4) of this section:

$$x_{dil/exh} = 1 - \frac{0.182}{1+\frac{35.18}{1000}} = 0.824 mol/mol \qquad x_{H2Oexh} = \frac{35.18}{1+\frac{35.18}{1000}} = 33.98 mmol/mol$$

$$x_{Ccombdry} = 0.025 + \frac{29.3}{1000000} + \frac{47.6}{1000000} - \frac{0.371}{1000} \cdot 0.853 - \frac{0.369}{1000} \cdot 0.171 = 0.0247 mol/mol$$

$$x_{H2Oexhdry} = \frac{1.8}{2}\left(0.0247 - \frac{47.6}{1000000}\right) + 0.012 \cdot 0.853 + 0.017 \cdot 0.171 = 0.035 mol/mol$$

$$x_{dil/exhdry} = \frac{0.824}{1-0.034} = 0.853 mol/mol$$

$$x_{int/exhdry} = \frac{1}{2 \cdot 0.206}\left(\begin{array}{l}\left(\frac{1.8}{2} - 0.050 + 2\right) \cdot \left(0.0247 - \frac{47.6}{1000000}\right) - \\ \left(\frac{29.3}{1000000} - \frac{50.4}{1000000} - 2 \cdot \frac{12.1}{1000000}\right)\end{array}\right) = 0.171 mol/mol$$

$$x_{raw/exhdry} = \frac{1}{2}\left(\begin{array}{l}\left(\frac{1.8}{2} + 0.050\right) \cdot \left(0.0247 - \frac{47.6}{1000000}\right) + \\ \left(2 \cdot \frac{47.6}{1000000} + \frac{29.3}{1000000} - \frac{12.1}{1000000}\right)\end{array}\right) + 0.171 = 0.182 mol/mol$$

$$x_{O2int} = \frac{0.209820 - 0.000375}{1+\frac{17.22}{1000}} = 0.206 mol/mol$$

$$x_{CO2int} = \frac{0.000375 \times 1000}{1+\frac{17.22}{1000}} = 0.371 mmol/mol$$

$$x_{H2Ointdry} = \frac{16.93}{1-\frac{16.93}{1000}} = 17.22 mmol/mol \qquad x_{COdry} = \frac{29.0}{1-\frac{8.601}{1000}} = 29.3 mmol/mol \qquad x_{NO2dry} = \frac{12.0}{1-\frac{8.601}{1000}} = 12.1 mmol/mol$$

$$x_{CO2dil} = \frac{0.375}{1+\frac{12.01}{1000}} = 0.37 mmol/mol \qquad x_{CO2dry} = \frac{24.98}{1-\frac{8.601}{1000}} = 25.2 mmol/mol \qquad x_{THCdry} = \frac{46}{1-\frac{33.98}{1000}} = 47.6 mmol/mol$$

$\alpha = 1.8$
$\beta = 0.05$

$$x_{H2Odildry} = \frac{11.87}{1-\frac{11.87}{1000}} = 12.01 mmol/mol \qquad x_{NOdry} = \frac{50.0}{1-\frac{8.601}{1000}} = 50.4 mmol/mol$$

TABLE 1 OF § 1065.655.—DEFAULT VALUES OF ATOMIC HYDROGEN-TO-CARBON RATIO, α, ATOMIC OXYGEN-TO-CARBON RATIO, β, AND CARBON MASS FRACTION OF FUEL, $w_C$, FOR VARIOUS FUELS

| Fuel | Atomic hydrogen and oxygen-to-carbon ratios $CH\alpha O\beta$ | Carbon mass concentration, $w_C$ g/g |
|---|---|---|
| Gasoline | $CH_{1.85}O_0$ | 0.866 |
| #2 Diesel | $CH_{1.80}O_0$ | 0.869 |
| #1 Diesel | $CH_{1.93}O_0$ | 0.861 |
| Liquified Petroleum Gas | $CH_{2.64}O_0$ | 0.819 |
| Natural gas | $CH_{3.78}O_{0.016}$ | 0.747 |
| Ethanol | $CH_3O_{0.5}$ | 0.521 |
| Methanol | $CH_4O_1$ | 0.375 |

(d) *Calculated raw exhaust molar flow rate from measured intake air molar flow rate or fuel mass flow rate.* You may calculate the raw exhaust molar flow rate from which you sampled emissions, $\dot{n}_{exh}$, based on the measured intake air molar flow rate, $\dot{n}_{int}$, or the measured fuel mass flow rate, $\dot{n}_{fuel}$, and the values calculated using the chemical balance in paragraph (c) of this section. Note that the chemical balance must be based on raw exhaust gas concentrations. Solve for the chemical balance in paragraph (c) of this section at the same frequency that you update and record $\dot{n}_{int}$or $\dot{n}_{fuel}$.

(1) *Crankcase flow rate.* If engines are not subject to crankcase controls under the standard-setting part, you may calculate raw exhaust flow based on $\dot{n}_{int}$or $\dot{n}_{fuel}$ using one of the following:

(i) You may measure flow rate through the crankcase vent and subtract it from the calculated exhaust flow.

(ii) You may estimate flow rate through the crankcase vent by engineering analysis as long as the uncertainty in your calculation does not adversely affect your ability to show that your engines comply with applicable emission standards.

(iii) You may assume your crankcase vent flow rate is zero.

(2) *Intake air molar flow rate calculation.* Based on $\dot{n}_{int}$, calculate $\dot{n}_{exh}$ as follows:

$$\dot{n}_{exh} = \frac{\dot{n}_{int}}{\left(1 + \frac{\left(x_{int/exhdry} - x_{raw/exhdry}\right)}{\left(1 + x_{H2Oexhdry}\right)}\right)} \qquad \text{Eq. 1065.655-18}$$

Where:

$\dot{n}_{exh}$ = raw exhaust molar flow rate from which you measured emissions.

$\dot{n}_{int}$ = intake air molar flow rate including humidity in intake air.

Example:

$\dot{n}_{int}$ = 3.780 mol/s

$x_{int/exhdry}$ = 0.69021 mol/mol

$x_{raw/exhdry}$ = 1.10764 mol/mol

$x_{H20exhdry}$ = 107.64 mmol/mol = 0.10764 mol/mol

$$\dot{n}_{exh} = \frac{3.780}{\left(1 + \frac{(0.69021 - 1.10764)}{(1 + 0.10764)}\right)}$$

$\dot{n}_{exh}$ = 6.066 mol/s

(3) *Fuel mass flow rate calculation.* Based on $m_{fuel}$, calculate $\dot{n}_{exh}$ as follows:

$$\dot{n}_{exh} = \frac{\dot{m}_{fuel} \cdot w_c \cdot \left(1 + x_{H2Oexhdry}\right)}{M_c \cdot x_{Ccombdry}} \qquad \text{Eq. 1065.655-19}$$

Where:

$\dot{n}_{exh}$ = raw exhaust molar flow rate from which you measured emissions.

$\dot{m}_{fuel}$ = fuel flow rate including humidity in intake air.

Example:

$\dot{m}_{fuel}$ = 7.559 g/s

$w_C$ = 0.869 g/g

$M_C$ = 12.0107 g/mol

$x_{Ccombdry}$ = 99.87 mmol/mol = 0.09987 mol/mol

$x_{H20exhdry}$ = 107.64 mmol/mol = 0.10764 mol/mol

$$\dot{n}_{exh} = \frac{7.559 \cdot 0.869 \cdot (1 + 0.10764)}{12.0107 \cdot 0.09987}$$

$\dot{n}_{exh}$ = 6.066 mol/s

■ 117. Section 1065.659 is revised to read as follows:

**§ 1065.659 Removed water correction.**

(a) If you remove water upstream of a concentration measurement, $x$, or upstream of a flow measurement, $n$, correct for the removed water. Perform this correction based on the amount of water at the concentration measurement, $x_{H2O[emission]meas}$, and at the flow meter, $x_{H2Oexh}$, whose flow is used to determine the concentration's total mass over a test interval.

(b) When using continuous analyzers downstream of a sample dryer for transient and ramped-modal testing, you must correct for removed water using signals from other continuous analyzers. When using batch analyzers downstream of a sample dryer, you must correct for removed water by using signals either from other batch analyzers or from the flow-weighted average concentrations from continuous analyzers. Downstream of where you removed water, you may determine the

amount of water remaining by any of the following:

(1) Measure the dewpoint and absolute pressure downstream of the water removal location and calculate the amount of water remaining as described in § 1065.645.

(2) When saturated water vapor conditions exist at a given location, you may use the measured temperature at that location as the dewpoint for the downstream flow. If we ask, you must demonstrate how you know that saturated water vapor conditions exist. Use good engineering judgment to measure the temperature at the appropriate location to accurately reflect the dewpoint of the flow. Note that if you use this option and the water correction in paragraph (d) of this section results in a corrected value that is greater than the measured value, your saturation assumption is invalid and you must determine the water content according to paragraph (b)(1) of this section.

(3) You may also use a nominal value of absolute pressure based on an alarm set point, a pressure regulator set point, or good engineering judgment.

(4) Set $x_{H2O[emission]meas}$ equal to that of the measured upstream humidity condition if it is lower than the dryer saturation conditions.

(c) For a corresponding concentration or flow measurement where you did not remove water, you may determine the amount of initial water by any of the following:

(1) Use any of the techniques described in paragraph (b) of this section.

(2) If the measurement comes from raw exhaust, you may determine the amount of water based on intake-air humidity, plus a chemical balance of fuel, intake air and exhaust as described in § 1065.655.

(3) If the measurement comes from diluted exhaust, you may determine the amount of water based on intake-air humidity, dilution air humidity, and a chemical balance of fuel, intake air, and exhaust as described in § 1065.655.

(d) Perform a removed water correction to the concentration measurement using the following equation:

$$x = x_{[emission]meas} \cdot \left[ \frac{1 - x_{H2Oexh}}{1 - x_{H2O[emission]meas}} \right] \qquad \text{Eq. 1065.659-1}$$

Example:

$x_{COmeas}$ = 29.0 μmol/mol

$x_{H2OCOmeas}$ = 8.601 mmol/mol = 0.008601 mol/mol

$x_{H2Oexh}$ = 34.04 mmol/mol = 0.03404 mol/mol

$$x_{CO} = 29.0 \cdot \left[ \frac{1 - 0.03404}{1 - 0.008601} \right]$$

$x_{CO}$ = 28.3 μmol/mol

■ 118. Section 1065.660 is revised to read as follows:

**§ 1065.660 THC and NMHC determination.**

(a) *THC determination and THC/$CH_4$ initial contamination corrections.* (1) If we require you to determine THC emissions, calculate $x_{THC[THC-FID]}$ using the initial THC contamination concentration $x_{THC[THC-FID]init}$ from § 1065.520 as follows:

$$x_{THC[THC\text{-}FID]cor} = x_{THC[THC\text{-}FID]uncor} - x_{THC[THC\text{-}FID]init} \qquad \text{Eq. 1065.660-1}$$

Example:

$x_{THCuncor}$ = 150.3 μmol/mol

$x_{THCinit}$ = 1.1 μmol/mol

$x_{THCcor}$ = 150.3 − 1.1

$x_{THCcor}$ = 149.2 μmol/mol

(2) For the NMHC determination described in paragraph (b) of this section, correct $x_{THC[THC-FID]}$ for initial HC contamination using Eq. 1065.660–1. You may correct for initial contamination of the $CH_4$ sample train using Eq. 1065.660–1, substituting in $CH_4$ concentrations for THC.

(b) *NMHC determination.* Use one of the following to determine NMHC concentration, $x_{NMHC}$:

(1) If you do not measure $CH_4$, you may determine NMHC concentrations as described in § 1065.650(c)(1)(vi).

(2) For nonmethane cutters, calculate $x_{NMHC}$ using the nonmethane cutter's penetration fractions (PF) of $CH_4$ and $C_2H_6$ from § 1065.365, and using the HC contamination and wet-to-dry corrected THC concentration $x_{THC[THC-FID]cor}$ as determined in paragraph (a) of this section.

(i) Use the following equation for penetration fractions determined using an NMC configuration as outlined in § 1065.365(d):

$$x_{NMHC} = \frac{x_{THC[THC\text{-}FID]cor} - x_{THC[NMC\text{-}FID]} \cdot RF_{CH4[THC\text{-}FID]}}{1 - RFPF_{C2H6[NMC\text{-}FID]} \cdot RF_{CH4[THC\text{-}FID]}} \qquad \text{Eq. 1065.660-2}$$

Where:

$x_{NMHC}$ = concentration of NMHC.

$x_{THC[THC-FID]cor}$ = concentration of THC, HC contamination and dry-to-wet corrected, as measured by the THC FID during sampling while bypassing the NMC.

$x_{THC[NMC-FID]}$ = concentration of THC, HC contamination (optional) and dry-to-wet corrected, as measured by the THC FID during sampling through the NMC.

$RF_{CH4[THC-FID]}$ = response factor of THC FID to $CH_4$, according to § 1065.360(d).

$RFPF_{C2H6[NMC-FID]}$ = nonmethane cutter combined ethane response factor and penetration fraction, according to § 1065.365(d).

*Example:*

$x_{THC[THC-FID]cor}$ = 150.3 μmol/mol

$x_{THC[NMC-FID]}$ = 20.5 μmol/mol

$RFPF_{C2H6[NMC-FID]}$ = 0.019

$RF_{CH4[THC-FID]}$ = 1.05

$$x_{NMHC} = \frac{150.3 - 20.5 \cdot 1.05}{1 - 0.019 \cdot 1.05}$$

$x_{NMHC}$ = 130.4 μmol/mol

(ii) For penetration fractions determined using an NMC configuration as outlined in § 1065.365(e), use the following equation:

$$x_{NMHC} = \frac{x_{THC[THC\text{-}FID]cor} \cdot PF_{CH4[NMC\text{-}FID]} - x_{THC[NMC\text{-}FID]}}{PF_{CH4[NMC\text{-}FID]} - PF_{C2H6[NMC\text{-}FID]}} \qquad \text{Eq. 1065.660-3}$$

Where:

$x_{NMHC}$ = concentration of NMHC.

$x_{THC[THC-FID]cor}$ = concentration of THC, HC contamination and dry-to-wet corrected, as measured by the THC FID during sampling while bypassing the NMC.

$PF_{CH4[NMC-FID]}$ = nonmethane cutter $CH_4$ penetration fraction, according to § 1065.365(e).

$x_{THC[NMC-FID]}$ = concentration of THC, HC contamination (optional) and dry-to-wet corrected, as measured by the THC FID during sampling through the NMC.

$PF_{C2H6[NMC-FID]}$ = nonmethane cutter ethane penetration fraction, according to § 1065.365(e).

*Example:*

$x_{THC[THC-FID]cor}$ = 150.3 μmol/mol

$PF_{CH4[NMC-FID]}$ = 0.990

$x_{THC[NMC-FID]}$ = 20.5 μmol/mol

$PF_{C2H6[NMC-FID]}$ = 0.020

$$x_{NMHC} = \frac{150.3 \cdot 0.990 - 20.5}{0.990 - 0.020}$$

$x_{NMHC}$ = 132.3 μmol/mol

(iii) For penetration fractions determined using an NMC configuration as outlined in § 1065.365(f), use the following equation:

$$x_{NMHC} = \frac{x_{THC[THC\text{-}FID]cor} \cdot PF_{CH4[NMC\text{-}FID]} - x_{THC[NMC\text{-}FID]} \cdot RF_{CH4[THC\text{-}FID]}}{PF_{CH4[NMC\text{-}FID]} - RFPF_{C2H6[NMC\text{-}FID]} \cdot RF_{CH4[THC\text{-}FID]}} \qquad \text{Eq. 1065.660-4}$$

Where:

$x_{NMHC}$ = concentration of NMHC.

$x_{THC[THC-FID]cor}$ = concentration of THC, HC contamination and dry-to-wet corrected, as measured by the THC FID during sampling while bypassing the NMC.

$PF_{CH4[NMC-FID]}$ = nonmethane cutter $CH_4$ penetration fraction, according to § 1065.365(f).

$x_{THC[NMC-FID]}$ = concentration of THC, HC contamination (optional) and dry-to-wet corrected, as measured by the THC FID during sampling through the NMC.

$RFPF_{C2H6[NMC-FID]}$ = nonmethane cutter $CH_4$ combined ethane response factor and penetration fraction, according to § 1065.365(f).

$RF_{CH4[THC-FID]}$ = response factor of THC FID to $CH_4$, according to § 1065.360(d).

Example:

$x_{THC[THC-FID]cor}$ = 150.3 μmol/mol

$PF_{CH4[NMC-FID]}$ = 0.990

$x_{THC[NMC-FID]}$ = 20.5 μmol/mol

$RFPF_{C2H6[NMC-FID]}$ = 0.019

$RF_{CH4[THC-FID]}$ = 0.980

$$x_{NMHC} = \frac{150.3 \cdot 0.990 - 20.5 \cdot 0.980}{0.990 - 0.019 \cdot 0.980}$$

$x_{NMHC}$ = 132.5 μmol/mol

(3) For a gas chromatograph, calculate $x_{NMHC}$ using the THC analyzer's response factor (*RF*) for $CH_4$, from § 1065.360, and the HC contamination and wet-to-dry corrected initial THC concentration $x_{THC[THC-FID]cor}$ as determined in section (a) above as follows:

$$x_{NMHC} = x_{THC[THC\text{-}FID]cor} - RF_{CH4[THC\text{-}FID]} \cdot x_{CH4} \qquad \text{Eq. 1065.660-5}$$

Where:

$x_{NMHC}$ = concentration of NMHC.

$x_{THC[THC-FID]cor}$ = concentration of THC, HC contamination and dry-to-wet corrected, as measured by the THC FID.

$x_{CH4}$ = concentration of $CH_4$, HC contamination (optional) and dry-to-wet corrected, as measured by the gas chromatograph FID.

$RF_{CH4[THC-FID]}$ = response factor of THC-FID to $CH_4$.

Example:

$x_{THC[THC-FID][cor}$ = 145.6 μmol/mol

$RF_{CH4[THC-FID]}$ = 0.970

$x_{CH4}$ = 18.9 μmol/mol

$x_{NMHC}$ = 145.6 − 0.970 · 18.9

$x_{NMHC}$ = 127.3 μmol/mol

■ 119. Section 1065.665 is revised to read as follows:

**§ 1065.665 THCE and NMHCE determination.**

(a) If you measured an oxygenated hydrocarbon's mass concentration, first calculate its molar concentration in the exhaust sample stream from which the sample was taken (raw or diluted exhaust), and convert this into a $C_1$-equivalent molar concentration. Add these $C_1$-equivalent molar concentrations to the molar concentration of NOTHC. The result is the molar concentration of THCE. Calculate THCE concentration using the following equations, noting that equation 1065.665–3 is only required if you need to convert your OHC concentration from mass to moles:

$$x_{THCE} = x_{NOTHC} + \sum_{i=1}^{N} \left( x_{OHCi} - x_{OHCi\text{-init}} \right) \qquad \text{Eq. 1065.665-1}$$

$$x_{NOTHC} = x_{THC[THC\text{-}FID]cor} - \sum_{i=1}^{N} \left( x_{OHCi} \cdot RF_{OHCi[THC\text{-}FID]} \right) \qquad \text{Eq. 1065.665-2}$$

$$x_{OHCi} = \frac{\frac{m_{dexhOHCi}}{M_{OHCi}}}{\frac{m_{dexh}}{M_{dexh}}} = \frac{n_{dexhOHCi}}{n_{dexh}} \qquad \text{Eq. 1065.665-3}$$

Where:

$x_{THCE}$ = The $C_1$-equivalent sum of the concentration of carbon mass contributions of non-oxygenated hydrocarbons, alcohols, and aldehydes.

$x_{NOTHC}$ = The $C_1$-equivalent sum of the concentration of nonoxygenated THC.

$x_{OHCi}$ = The $C_1$-equivalent concentration of oxygenated species *i* in diluted exhaust, not corrected for initial contamination.

$x_{OHCi\text{-init}}$ = The $C_1$-equivalent concentration of the initial system contamination (optional) of oxygenated species *i*, dry-to-wet corrected.

$x_{THC[THC\text{-}FID]cor}$ = The $C_1$-equivalent response to NOTHC and all OHC in diluted exhaust, HC contamination and dry-to-wet corrected, as measured by the THC-FID.

$RF_{OHCi[THC\text{-}FID]}$ = The response factor of the FID to species *i* relative to propane on a $C_1$-equivalent basis.

$C^{\#}$ = The mean number of carbon atoms in the particular compound.

$M_{dexh}$ = The molar mass of diluted exhaust as determined in § 1065.340.

$m_{dexhOHCi}$ = The mass of oxygenated species *i* in dilute exhaust.

$M_{OHCi}$ = The $C_1$-equivalent molecular weight of oxygenated species *i*.

$m_{dexh}$ = The mass of diluted exhaust.

$n_{dexhOHCi}$ = The number of moles of oxygenated species *i* in total diluted exhaust flow.

$n_{dexh}$ = The total diluted exhaust flow.

(b) If we require you to determine NMHCE, use the following equation:

$$x_{NMHCE} = x_{THCE} - RF_{CH4[THC\text{-}FID]} \cdot x_{CH4} \qquad \text{Eq. 1065.665-4}$$

Where:

$x_{NMHCE}$ = The $C_1$-equivalent sum of the concentration of carbon mass contributions of non-oxygenated NMHC, alcohols, and aldehydes.

$RF_{CH4[THC\text{–}FID]}$ = response factor of THC–FID to $CH_4$.

$x_{CH4}$ = concentration of $CH_4$, HC contamination (optional) and dry-to-wet corrected, as measured by the gas chromatograph FID.

(c) The following example shows how to determine NMHCE emissions based on ethanol ($C_2H_5OH$), methanol ($CH_3OH$), acetaldehyde ($C_2H_4O$), and formaldehyde (HCHO) as $C_1$-equivalent molar concentrations:

$x_{THC[THC\text{–}FID]cor}$ = 145.6 μmol/mol
$x_{CH4}$ = 18.9 μmol/mol
$x_{C2H5OH}$ = 100.8 μmol/mol
$x_{CH3OH}$ = 1.1 μmol/mol
$x_{C2H4O}$ = 19.1 μmol/mol
$x_{HCHO}$ = 1.3 μmol/mol
$RF_{CH4[THC\text{–}FID]}$ = 1.07
$RF_{C2H5OH[THC\text{–}FID]}$ = 0.76
$RF_{CH3OH[THC\text{–}FID]}$ = 0.74
$RF_{H2H4O[THC\text{–}FID]}$ = 0.50
$RF_{HCHO[THC\text{–}FID]}$ = 0.0

$$x_{NMHCE} = x_{THC[THC\text{–}FID]cor} - (x_{C2H5OH} \cdot RF_{C2H5OH[THC\text{–}FID]} + x_{CH3OH} \cdot RF_{CH3OH[THC\text{–}FID]} + x_{C2H4O} \cdot RF_{C2H4O[THC\text{–}FID]} + x_{HCHO} \cdot RF_{HCHO[THC\text{–}FID]} + x_{C2H5OH} + x_{CH3OH} + x_{C2H4O} + x_{HCHO} - (RF_{CH4[THC\text{-}FID]} \cdot x_{CH4})$$

$$x_{NMHCE} = 145.6 - (100.8 \cdot 0.76 + 1.1 \cdot 0.74 + 19.1 \cdot 0.50 + 1.3 \cdot 0) + 100.8 + 1.1 + 19.1 + 1.3 - (1.07 \cdot 18.9)$$

$x_{NMHCE}$ = 160.71 μmol/mol

■ 120. Section 1065.667 is amended by revising paragraph (b) to read as follows:

**§ 1065.667 Dilution air background emission correction.**

* * * * *

(b) You may determine the total flow of dilution air by a direct flow measurement. In this case, calculate the total mass of background as described in § 1065.650(b), using the dilution air flow, $n_{dil}$. Subtract the background mass from the total mass. Use the result in brake-specific emission calculations.

* * * * *

■ 121. Section 1065.670 is amended by revising the introductory text to read as follows:

**§ 1065.670 $NO_X$ intake-air humidity and temperature corrections.**

See the standard-setting part to determine if you may correct $NO_X$ emissions for the effects of intake-air humidity or temperature. Use the $NO_X$ intake-air humidity and temperature corrections specified in the standard-setting part instead of the $NO_X$ intake-air humidity correction specified in this part 1065. If the standard-setting part does not prohibit correcting $NO_X$ emissions for intake-air humidity according to this part 1065, first apply any $NO_X$ corrections for background emissions and water removal from the exhaust sample, then correct $NO_X$ concentrations for intake-air humidity. You may use a time-weighted mean combustion air humidity to calculate this correction if your combustion air humidity remains within a tolerance of ± 0.0025 mol/mol of the mean value over the test interval. For intake-air humidity correction, use one of the following approaches:

* * * * *

■ 122. Section 1065.675 is revised to read as follows:

**§ 1065.675 CLD quench verification calculations.**

Perform CLD quench-check calculations as follows:

(a) Calculate the amount of water in the span gas, $x_{H2Ospan}$, assuming complete saturation at the span-gas temperature.

(b) Estimate the expected amount of water and $CO_2$ in the exhaust you sample, $x_{H2Oexp}$ and $x_{CO2exp}$, respectively, by considering the maximum expected amounts of water in combustion air, fuel combustion products, and dilution air concentrations (if applicable).

(c) Set $x_{H2Oexp}$ equal to $x_{H2Omeas}$ if you are using a sample dryer that passes the sample dryer verification check in § 1065.342.

(d) Calculate water quench as follows:

$$quench = \left( \frac{\frac{x_{NOwet}}{1 - x_{H2Omeas}}}{x_{NOdry}} - 1 \right) \cdot \frac{x_{H2Oexp}}{x_{H2Omeas}} + \frac{x_{NO,CO2} - x_{NO,N2}}{x_{NO,N2}} \cdot \frac{x_{CO2exp}}{x_{CO2meas}} \qquad \text{Eq. 1065.675-1}$$

Where:

*quench* = amount of CLD quench.

$x_{NOdry}$ = measured concentration of NO upstream of a bubbler, according to § 1065.370.

$x_{NOwet}$ = measured concentration of NO downstream of a bubbler, according to § 1065.370.

$x_{H2Oexp}$ = expected maximum amount of water entering the CLD sample port during emission testing.

$x_{H2Omeas}$ = measured amount of water entering the CLD sample port during the quench verification specified in § 1065.370.

$x_{NO,CO2}$ = measured concentration of NO when NO span gas is blended with $CO_2$ span gas, according to § 1065.370.

$x_{NO,N2}$ = measured concentration of NO when NO span gas is blended with $N_2$ span gas, according to § 1065.370.

$x_{CO2exp}$ = expected maximum amount of $CO_2$ entering the CLD sample port during emission testing.

$x_{CO2meas}$ = measured amount of $CO_2$ entering the CLD sample port during the quench verification specified in § 1065.370.

Example:

$x_{NOdry}$ = 1800.0 μmol/mol
$x_{NOwet}$ = 1760.5 μmol/mol
$x_{H2Oexp}$ = 0.030 mol/mol
$x_{H2Omeas}$ = 0.017 mol/mol
$x_{NO,CO2}$ = 1480.2 μmol/mol
$x_{NO,N2}$ = 1500.8 μmol/mol
$x_{CO2exp}$ = 2.00%
$x_{CO2meas}$ = 3.00%

$$quench = \left( \frac{\frac{1760.5}{1 - 0.017}}{1800.0} - 1 \right) \cdot \frac{0.030}{0.017} + \frac{1480.2 - 1500.8}{1500.8} \cdot \frac{2.00}{3.00}$$

$quench = -0.00888 - 0.00915 = -1.80\%$

■ 123. Section 1065.690 is amended by revising paragraph (e) to read as follows:

**§ 1065.690 Buoyancy correction for PM sample media.**

* * * * *

(e) *Correction calculation.* Correct the PM sample media for buoyancy using the following equations:

$$m_{cor} = m_{uncor} \cdot \left[ \frac{1 - \frac{\rho_{air}}{\rho_{weight}}}{1 - \frac{\rho_{air}}{\rho_{media}}} \right] \qquad \text{Eq. 1065.690-1}$$

Where:

$m_{cor}$ = PM mass corrected for buoyancy.

$m_{uncor}$ = PM mass uncorrected for buoyancy.

$\rho_{air}$ = density of air in balance environment.

$\rho_{weight}$ = density of calibration weight used to span balance.

$\rho_{media}$ = density of PM sample media, such as a filter.

$$\rho_{air} = \frac{p_{abs} \cdot M_{mix}}{R \cdot T_{amb}} \qquad \text{Eq.1065.690-2}$$

Where:

$p_{abs}$ = absolute pressure in balance environment.

$M_{mix}$ = molar mass of air in balance environment.

$R$ = molar gas constant.

$T_{amb}$ = absolute ambient temperature of balance environment.

Example:

$p_{abs}$ = 99.980 kPa
$T_{sat} = T_{dew}$ = 9.5 °C
Using Eq. 1065.645–2,
$p_{H20}$ = 1.1866 kPa
Using Eq. 1065.645–3,
$x_{H2O}$ = 0.011868 mol/mol
Using Eq. 1065.640–9,
$M_{mix}$ = 28.83563 g/mol
$R$ = 8.314472 J/(mol · K)
$T_{amb}$ = 20 °C

$$\rho_{air} = \frac{99.980 \cdot 28.83563}{8.314472 \cdot 293.15}$$

$\rho_{air}$ = 1.18282 kg/m$^3$
$m_{uncorr}$ = 100.0000 mg
$\rho_{weight}$ = 8000 kg/m$^3$
$\rho_{media}$ = 920 kg/m$^3$

$$m_{cor} = 100.0000 \cdot \left[ \frac{1 - \frac{1.18282}{8000}}{1 - \frac{1.18282}{920}} \right]$$

$m_{cor}$ 100.1139 mg

■ 124. Section 1065.695 is amended by revising paragraph (c)(7)(ix) to read as follows:

**§ 1065.695 Data requirements.**

* * * * *

(c) * * *

(7) * * *

(ix) Warm-idle speed value.

* * * * *

## Subpart H—[Amended]

■ 125. Section 1065.701 is amended by revising paragraphs (b), (c), and (e) to read as follows:

**§ 1065.701 General requirements for test fuels.**

* * * * *

(b) *Fuels meeting alternate specifications.* We may allow you to use a different test fuel (such as California Phase 2 gasoline) if it does not affect your ability to show that your engines would comply with all applicable emission standards using the fuel specified in this subpart.

(c) *Fuels not specified in this subpart.* If you produce engines that run on a type of fuel (or mixture of fuels) that we do not specify in this subpart, you must get our written approval to establish the appropriate test fuel. See the standard-setting part for provisions related to

fuels and fuel mixtures not specified in this subpart.

(1) For engines designed to operate on a single fuel, we will generally allow you to use the fuel if you show us all the following things are true:

(i) Show that your engines will use only the designated fuel in service.

(ii) Show that this type of fuel is commercially available.

(iii) Show that operating the engines on the fuel we specify would be inappropriate, as in the following examples:

(A) The engine will not run on the specified fuel.

(B) The engine or emission controls will not be durable or work properly when operating with the specified fuel.

(C) The measured emission results would otherwise be substantially unrepresentative of in-use emissions.

(2) For engines that are designed to operate on different fuel types, the provisions of paragraphs (c)(1)(ii) and (iii) of this section apply with respect to each fuel type.

(3) For engines that are designed to operate on different fuel types as well as continuous mixtures of those fuels, we may require you to test with either the worst-case fuel mixture or the most representative fuel mixture, unless the standard-setting part specifies otherwise.

* * * * *

(e) *Service accumulation and field testing fuels.* If we do not specify a service-accumulation or field-testing fuel in the standard-setting part, use an appropriate commercially available fuel such as those meeting minimum specifications from the following table:

TABLE 1 OF § 1065.701.—EXAMPLES OF SERVICE-ACCUMULATION AND FIELD-TESTING FUELS

| Fuel category | Subcategory | Reference procedure [1] |
|---|---|---|
| | Light distillate and light blends with residual | ASTM D975–07b. |
| Diesel | Middle distillate | ASTM D6751–07b. |
| | Biodiesel (B100) | ASTM D6985–04a. |
| Intermediate and residual fuel | All | See § 1065.705. |
| Gasoline | Motor vehicle gasoline | ASTM D4814–07a. |
| | Minor oxygenated gasoline blends | ASTM D4814–07a. |
| Alcohol | Ethanol (Ed75–85) | ASTM D5798–07. |
| | Methanol (M70–M85) | ASTM D5797–07. |
| Aviation fuel | Aviation gasoline | ASTM D910–07. |
| | Gas turbine | ASTM D1655–07e01. |
| | Jet B wide cut | ASTM D6615–06. |
| Gas turbine fuel | General | ASTM D2880–03. |

[1] ASTM specifications are incorporated by reference in § 1065.1010.

■ 126. Section 1065.703 is amended by revising Table 1 to read as follows:

**§ 1065.703 Distillate diesel fuel.**

* * * * *

TABLE 1 OF § 1065.703.—TEST FUEL SPECIFICATIONS FOR DISTILLATE DIESEL FUEL

| Item | Units | Ultra low sulfur | Low sulfur | High sulfur | Reference procedure [1] |
|---|---|---|---|---|---|
| Cetane Number | | 40–50 | 40–50 | 40–50 | ASTM D613–05. |
| Distillation range | °C | | | | |
| Initial boiling point | | 171–204 | 171–204 | 171–204 | ASTM D86–07a. |
| 10 pct. point | | 204–238 | 204–238 | 204–238 | |
| 50 pct. point | | 243–282 | 243–282 | 243–282 | |
| 90 pct. point | | 293–332 | 293–332 | 293–332 | |
| Endpoint | | 321–366 | 321–366 | 321–366 | |
| Gravity | ° API | 32–37 | 32–37 | 32–37 | ASTM D4052–96e01. |
| Total sulfur | mg/kg | 7–15 | 300–500 | 2000–4000 | ASTM D2622–07. |
| Aromatics, min. (Remainder shall be paraffins, naphthalenes, and olefins). | g/kg | 100 | 100 | 100 | ASTM D5186–03. |
| Flashpoint, min. | °C | 54 | 54 | 54 | ASTM D93–07. |
| Kinematic Viscosity | cSt | 2.0–3.2 | 2.0–3.2 | 2.0–3.2 | ASTM D445–06. |

[1] ASTM procedures are incorporated by reference in § 1065.1010. See § 1065.701(d) for other allowed procedures.

■ 127. A new § 1065.705 is added to read as follows:

**§ 1065.705 Residual and intermediate residual fuel.**

This section describes the specifications for fuels meeting the definition of residual fuel in 40 CFR 80.2, including fuels marketed as intermediate fuel. Residual fuels for service accumulation and any testing must meet the following specifications:

(a) The fuel must be a commercially available fuel that is representative of the fuel that will be used by the engine in actual use.

(b) The fuel must meet the specifications for one of the categories in the following table:

TABLE 1 OF § 1065.705.—SERVICE ACCUMULATION AND TEST FUEL SPECIFICATIONS FOR RESIDUAL FUEL

| Characteristic | Unit | Category ISO–F– | | | | | | | | | | Test method reference [1] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | RMA 30 | RMB 30 | RMD 80 | RME 180 | RMF 180 | RMG 380 | RMH 380 | RMK 380 | RMH 700 | RMK 700 | |
| Density at 15 °C, max. | kg/m³ | 960.0 | 975.0 | 980.0 | 991.0 | | 991.0 | | 1010.0 | 991.0 | 1010.0 | ISO 3675 or ISO 12185: 1996/Cor 1:2001 (see also ISO 8217:2005(E) 7.1). |
| Kinematic viscosity at 50 °C, max. | cSt | 30.0 | | 80.0 | 180.0 | | 380.0 | | 700.0 | | | ISO 3104:1994/Cor 1:1997. |
| Flash point, min | °C | 60 | | 60 | 60 | | 60 | | 60 | | | ISO 2719 (see also ISO 8217:2005(E) 7.2). |
| Pour point (upper): | | | | | | | | | | | | |
| Winter quality, max. | °C | 0 | 24 | 30 | 30 | | 30 | | 30 | | | ISO 3016. |
| Summer quality, max. | | 6 | 24 | 30 | 30 | | 30 | | 30 | | | ISO 3016. |
| Carbon residue, max. | (kg/kg)% | 10 | | 14 | 15 | 20 | 18 | 22 | 22 | | | ISO 10370:1993/Cor 1:1996. |
| Ash, max. | (kg/kg)% | 0.10 | | 0.10 | 0.10 | 0.15 | 0.15 | | 0.15 | | | ISO 6245. |
| Water, max | (m³/m³)% | 0.5 | | 0.5 | 0.5 | | 0.5 | | 0.5 | | | ISO 3733. |
| Sulfur, max | (kg/kg)% | 3.50 | | 4.00 | 4.50 | | 4.50 | | 4.50 | | | ISO 8754 or ISO 14596: 1998/Cor 1:1999 (see also ISO 8217:2005(E) 7.3). |
| Vanadium, max | mg/kg | 150 | | 350 | 200 | 500 | 300 | 600 | 600 | | | ISO 14597 or IP 501 or IP 470 (see also ISO 8217:2005(E) 7.8). |
| Total sediment potential, max. | (kg/kg)% | 0.10 | | 0.10 | 0.10 | | 0.10 | | 0.10 | | | ISO 10307–2 (see also ISO 8217:2005(E) 7.6). |
| Aluminium plus silicon, max. | mg/kg | 80 | | 80 | 80 | | 80 | | 80 | | | ISO 10478 or IP 501 or IP 470 (see also ISO 8217:2005(E) 7.9). |
| Used lubricating oil (ULO), max. | | Fuel shall be free of ULO. We consider a fuel to be free of ULO if one or more of the elements zinc, phosphorus, or calcium is at or below the specified limits. We consider a fuel to contain ULO if all three elements exceed the specified limits. | | | | | | | | | | IP 501 or IP 470 (see ISO 8217:2005(E) 7.7). IP 501 or IP 500 (see ISO 8217:2005(E) 7.7). IP 501 or IP 470 (see ISO 8217:2005(E) 7.7). |
| | mg/kg | 15 | | | | | | | | | | |
| Zinc | | 15 | | | | | | | | | | |
| Phosphorus | | 15 | | | | | | | | | | |
| Calcium | | 30 | | | | | | | | | | |

[1] ISO procedures are incorporated by reference in § 1065.1010. See § 1065.701(d) for other allowed procedures.

■ 128. Section 1065.710 is amended by revising Table 1 to read as follows:

**§ 1065.710 Gasoline.**

* * * * *

TABLE 1 OF § 1065.710.—TEST FUEL SPECIFICATIONS FOR GASOLINE

| Item | Units | General testing | Low-temperature testing | Reference procedure [1] |
|---|---|---|---|---|
| Distillation Range: | | | | |
| Initial boiling point | °C | 24–35 [2] | 24–36. | |
| 10% point | °C | 49–57 | 37–48 | ASTM D86–07a. |
| 50% point | °C | 93–110 | 82–101. | |
| 90% point | °C | 149–163 | 158–174. | |
| End point | °C | Maximum, 213 | Maximum, 212. | |
| Hydrocarbon composition: | | | | |
| Olefins | m³/m³ | Maximum, 0.10 | Maximum, 0.175 | ASTM D1319–03. |
| Aromatics | | Maximum, 0.35 | Maximum, 0.304. | |
| Saturates | | Remainder | Remainder. | |
| Lead (organic) | g/liter | Maximum, 0.013 | Maximum, 0.013 | ASTM D3237–06e01. |
| Phosphorous | g/liter | Maximum, 0.0013 | Maximum, 0.005 | ASTM D3231–07. |
| Total sulfur | mg/kg | Maximum, 80 | Maximum, 80 | ASTM D2622–07. |

TABLE 1 OF § 1065.710.—TEST FUEL SPECIFICATIONS FOR GASOLINE

| Item | Units | General testing | Low-temperature testing | Reference procedure [1] |
|---|---|---|---|---|
| Volatility (Reid Vapor Pressure) | kPa | 60.0–63.4 [2, 3] | 77.2–81.4 | ASTM D5191–07. |

[1] ASTM procedures are incorporated by reference in § 1065.1010. See § 1065.701(d) for other allowed procedures.
[2] For testing at altitudes above 1,219 m, the specified volatility range is (52.0 to 55.2) kPa and the specified initial boiling point range is (23.9 to 40.6) °C.
[3] For testing unrelated to evaporative emissions, the specified range is (55.2 to 63.4) kPa.

■ 129. Section 1065.715 is revised to read as follows:

**§ 1065.715 Natural gas.**

(a) Except as specified in paragraph (b) of this section, natural gas for testing must meet the specifications in the following table:

TABLE 1 OF § 1065.715.—TEST FUEL SPECIFICATIONS FOR NATURAL GAS

| Item | Value [1] |
|---|---|
| Methane, $CH_4$ | Minimum, 0.87 mol/mol. |
| Ethane, $C_2H_6$ | Maximum, 0.055 mol/mol. |
| Propane, $C_3H_8$ | Maximum, 0.012 mol/mol. |
| Butane, $C_4H_{10}$ | Maximum, 0.0035 mol/mol. |
| Pentane, $C_5H_{12}$ | Maximum, 0.0013 mol/mol. |
| $C_6$ and higher | Maximum, 0.001 mol/mol. |
| Oxygen | Maximum, 0.001 mol/mol. |
| Inert gases (sum of $CO_2$ and $N_2$) | Maximum, 0.051 mol/mol. |

[1] All parameters are based on the reference procedures in ASTM D1945–03 (incorporated by reference in § 1065.1010). See § 1065.701(d) for other allowed procedures.

(b) In certain cases you may use test fuel not meeting the specifications in paragraph (a) of this section, as follows:

(1) You may use fuel that your in-use engines normally use, such as pipeline natural gas.

(2) You may use fuel meeting alternate specifications if the standard-setting part allows it.

(3) You may ask for approval to use fuel that does not meet the specifications in paragraph (a) of this section, but only if using the fuel would not adversely affect your ability to demonstrate compliance with the applicable standards.

(c) When we conduct testing using natural gas, we will use fuel that meets the specifications in paragraph (a) of this section.

(d) At ambient conditions, natural gas must have a distinctive odor detectable down to a concentration in air not more than one-fifth the lower flammable limit.

■ 130. Section 1065.720 is revised to read as follows:

**§ 1065.720 Liquefied petroleum gas.**

(a) Except as specified in paragraph (b) of this section, liquefied petroleum gas for testing must meet the specifications in the following table:

TABLE 1 OF § 1065.720.—TEST FUEL SPECIFICATIONS FOR LIQUEFIED PETROLEUM GAS

| Item | Value | Reference procedure [1] |
|---|---|---|
| Propane, $C_3H_8$ | Minimum, 0.85 $m^3/m^3$ | ASTM D2163–05. |
| Vapor pressure at 38 °C | Maximum, 1400 kPa | ASTM D1267–02 or 2598–02[2]. |
| Volatility residue (evaporated temperature, 35 °C) | Maximum, −38 °C | ASTM D1837–02a. |
| Butanes | Maximum, 0.05 $m^3/m^3$ | ASTM D2163–05. |
| Butenes | Maximum, 0.02 $m^3/m^3$ | ASTM D2163–05. |
| Pentenes and heavier | Maximum, 0.005 $m^3/m^3$ | ASTM D2163–05. |
| Propene | Maximum, 0.1 $m^3/m^3$ | ASTM D2163–05. |
| Residual matter (residue on evap. of 100 ml oil stain observ.) | Maximum, 0.05 ml pass[3] | ASTM D2158–05. |
| Corrosion, copper strip | Maximum, No. 1 | ASTM D1838–07. |
| Sulfur | Maximum, 80 mg/kg | ASTM D2784–06. |
| Moisture content | pass | ASTM D2713–91. |

[1] ASTM procedures are incorporated by reference in § 1065.1010. See § 1065.701(d) for other allowed procedures.
[2] If these two test methods yield different results, use the results from ASTM D1267–02.
[3] The test fuel must not yield a persistent oil ring when you add 0.3 ml of solvent residue mixture to a filter paper in 0.1 ml increments and examine it in daylight after two minutes.

(b) In certain cases you may use test fuel not meeting the specifications in paragraph (a) of this section, as follows:

(1) You may use fuel that your in-use engines normally use, such as commercial-quality liquefied petroleum gas.

(2) You may use fuel meeting alternate specifications if the standard-setting part allows it.

(3) You may ask for approval to use fuel that does not meet the specifications in paragraph (a) of this section, but only if using the fuel would not adversely affect your ability to demonstrate compliance with the applicable standards.

(c) When we conduct testing using liquefied petroleum gas, we will use fuel that meets the specifications in paragraph (a) of this section.

(d) At ambient conditions, liquefied petroleum gas must have a distinctive odor detectable down to a concentration in air not more than one-fifth the lower flammable limit.

■ 131. Section 1065.750 is amended by revising paragraph (a) to read as follows:

**§ 1065.750 Analytical Gases.**

* * * * *

(a) Subparts C, D, F, and J of this part refer to the following gas specifications:

(1) Use purified gases to zero measurement instruments and to blend with calibration gases. Use gases with contamination no higher than the highest of the following values in the gas cylinder or at the outlet of a zero-gas generator:

(i) 2% contamination, measured relative to the flow-weighted mean concentration expected at the standard. For example, if you would expect a flow-weighted CO concentration of 100.0 μmol/mol, then you would be allowed to use a zero gas with CO contamination less than or equal to 2.000 μmol/mol.

(ii) Contamination as specified in the following table:

TABLE 1 OF § 1065.750.—GENERAL SPECIFICATIONS FOR PURIFIED GASES

| Constituent | Purified synthetic air [1] | Purified $N_2$ [1] |
|---|---|---|
| THC ($C_1$ equivalent) | < 0.05 μmol/mol | < 0.05 μmol/mol. |
| CO | < 1 μmol/mol | < 1 μmol/mol. |
| $CO_2$ | < 10 μmol/mol | < 10 μmol/mol. |
| $O_2$ | 0.205 to 0.215 mol/mol | < 2 μmol/mol. |
| $NO_X$ | < 0.02 μmol/mol | < 0.02 μmol/mol. |

[1] We do not require these levels of purity to be NIST-traceable.

(2) Use the following gases with a FID analyzer:

(i) *FID fuel.* Use FID fuel with a stated $H_2$ concentration of (0.39 to 0.41) mol/mol, balance He, and a stated total hydrocarbon concentration of 0.05 μmol/mol or less.

(ii) *FID burner air.* Use FID burner air that meets the specifications of purified air in paragraph (a)(1) of this section. For field testing, you may use ambient air.

(iii) *FID zero gas.* Zero flame-ionization detectors with purified gas that meets the specifications in paragraph (a)(1) of this section, except that the purified gas $O_2$ concentration may be any value. Note that FID zero balance gases may be any combination of purified air and purified nitrogen. We recommend FID analyzer zero gases that contain approximately the expected flow-weighted mean concentration of $O_2$ in the exhaust sample during testing.

(iv) *FID propane span gas.* Span and calibrate THC FID with span concentrations of propane, $C_3H_8$. Calibrate on a carbon number basis of one ($C_1$). For example, if you use a $C_3H_8$ span gas of concentration 200 μmol/mol, span a FID to respond with a value of 600 μmol/mol. Note that FID span balance gases may be any combination of purified air and purified nitrogen. We recommend FID analyzer span gases that contain approximately the flow-weighted mean concentration of $O_2$ expected during testing. If the expected $O_2$ concentration in the exhaust sample is zero, we recommend using a balance gas of purified nitrogen.

(v) *FID methane span gas.* If you always span and calibrate a $CH_4$ FID with a nonmethane cutter, then span and calibrate the FID with span concentrations of methane, $CH_4$. Calibrate on a carbon number basis of one ($C_1$). For example, if you use a $CH_4$ span gas of concentration 200 μmol/mol, span a FID to respond with a value of 200 μmol/mol. Note that FID span balance gases may be any combination of purified air and purified nitrogen. We recommend FID analyzer span gases that contain approximately the expected flow-weighted mean concentration of $O_2$ in the exhaust sample during testing. If the expected $O_2$ concentration in the exhaust sample is zero, we recommend using a balance gas of purified nitrogen.

(3) Use the following gas mixtures, with gases traceable within ± 1.0% of the NIST-accepted value or other gas standards we approve:

(i) $CH_4$, balance purified synthetic air and/or $N_2$ (as applicable).

(ii) $C_2H_6$, balance purified synthetic air and/or $N_2$ (as applicable).

(iii) $C_3H_8$, balance purified synthetic air and/or $N_2$ (as applicable).

(iv) CO, balance purified $N_2$.

(v) $CO_2$, balance purified $N_2$.

(vi) NO, balance purified $N_2$.

(vii) $NO_2$, balance purified synthetic air.

(viii) $O_2$, balance purified $N_2$.

(ix) $C_3H_8$, CO, $CO_2$, NO, balance purified $N_2$.

(x) $C_3H_8$, $CH_4$, CO, $CO_2$, NO, balance purified $N_2$.

(4) You may use gases for species other than those listed in paragraph (a)(3) of this section (such as methanol in air, which you may use to determine response factors), as long as they are traceable to within ± 3.0% of the NIST-accepted value or other similar standards we approve, and meet the stability requirements of paragraph (b) of this section.

(5) You may generate your own calibration gases using a precision blending device, such as a gas divider, to dilute gases with purified $N_2$ or purified synthetic air. If your gas dividers meet the specifications in § 1065.248, and the gases being blended meet the requirements of paragraphs (a)(1) and (3) of this section, the resulting blends are considered to meet the requirements of this paragraph (a).

* * * * *

## Subpart I—[Amended]

■ 132. Section 1065.805 is amended by revising paragraphs (a), (b), and (c) to read as follows:

**§ 1065.805 Sampling system.**

(a) Dilute engine exhaust, and use batch sampling to collect proportional flow-weighted dilute samples of the applicable alcohols and carbonyls. You may not use raw sampling for alcohols and carbonyls.

(b) You may collect background samples for correcting dilution air for background concentrations of alcohols and carbonyls.

(c) Maintain sample temperatures within the dilution tunnel, probes, and sample lines high enough to prevent aqueous condensation up to the point where a sample is collected to prevent loss of the alcohols and carbonyls by dissolution in condensed water. Use good engineering judgment to ensure that surface reactions of alcohols and carbonyls do not occur, as surface decomposition of methanol has been shown to occur at temperatures greater than 120 °C in exhaust from methanol-fueled engines.

* * * * *

■ 133. Section 1065.845 is amended by revising the introductory text to read as follows:

**§ 1065.845 Response factor determination.**

Since FID analyzers generally have an incomplete response to alcohols and carbonyls, determine each FID analyzer's alcohol/carbonyl response factor (such as $RF_{MeOH}$) after FID optimization to subtract those responses from the FID reading. You are not required to determine the response factor for a compound unless you will subtract its response to compensate for a response. Formaldehyde response is assumed to be zero and does not need to be determined. Use the most recent alcohol/carbonyl response factors to compensate for alcohol/carbonyl response.

* * * * *

## Subpart J—[Amended]

■ 134. Section 1065.901 is amended by revising paragraphs (b) introductory text and (b)(2) to read as follows:

**§ 1065.901 Applicability.**

* * * * *

(b) *Laboratory testing.* You may use PEMS for any testing in a laboratory or similar environment without restriction or prior approval if the PEMS meets all applicable specifications for laboratory testing. You may also use PEMS for any testing in a laboratory or similar environment if we approve it in advance, subject to the following provisions: * * *

(2) Do not apply any PEMS-related field-testing adjustments or measurement allowances to laboratory emission results or standards.

* * * * *

■ 135. Section 1065.905 is amended by revising paragraphs (c)(14) and (e) introductory text to read as follows:

**§ 1065.905 General provisions.**

* * * * *

(c) * * *

(14) Does any special measurement allowance apply to field-test emission results or standards, based on using PEMS for field-testing versus using laboratory equipment and instruments for laboratory testing?

* * * * *

(e) *Laboratory testing using PEMS.* You may use PEMS for testing in a laboratory as described in § 1065.901(b). Use the following procedures and specifications when using PEMS for laboratory testing:

* * * * *

■ 136. Section 1065.910 is revised to read as follows:

**§ 1065.910 PEMS auxiliary equipment for field testing.**

For field testing you may use various types of auxiliary equipment to attach PEMS to a vehicle or engine and to power PEMS.

(a) When you use PEMS, you may route engine intake air or exhaust through a flow meter. Route the engine intake air or exhaust as follows:

(1) *Flexible connections.* Use short flexible connectors where necessary.

(i) You may use flexible connectors to enlarge or reduce the pipe diameters to match that of your test equipment.

(ii) We recommend that you use flexible connectors that do not exceed a length of three times their largest inside diameter.

(iii) We recommend that you use four-ply silicone-fiberglass fabric with a temperature rating of at least 315 °C for flexible connectors. You may use connectors with a spring-steel wire helix for support and you may use Nomex™ coverings or linings for durability. You may also use any other nonreactive material with equivalent permeation-resistance and durability, as long as it seals tightly.

(iv) Use stainless-steel hose clamps to seal flexible connectors, or use clamps that seal equivalently.

(v) You may use additional flexible connectors to connect to flow meters.

(2) *Tubing.* Use rigid 300 series stainless steel tubing to connect between flexible connectors. Tubing may be straight or bent to accommodate vehicle geometry. You may use ''T'' or ''Y'' fittings made of 300 series stainless steel tubing to join multiple connections, or you may cap or plug redundant flow paths if the engine manufacturer recommends it.

(3) *Flow restriction.* Use flowmeters, connectors, and tubing that do not increase flow restriction so much that it exceeds the manufacturer's maximum specified value. You may verify this at the maximum exhaust flow rate by measuring pressure at the manufacturer-specified location with your system connected. You may also perform an engineering analysis to verify an acceptable configuration, taking into account the maximum exhaust flow rate expected, the field test system's flexible connectors, and the tubing's characteristics for pressure drops versus flow.

(b) For vehicles or other motive equipment, we recommend installing PEMS in the same location where a passenger might sit. Follow PEMS manufacturer instructions for installing PEMS in cargo spaces, engine spaces, or externally such that PEMS is directly exposed to the outside environment. We recommend locating PEMS where it will be subject to minimal sources of the following parameters:

(1) Ambient temperature changes.

(2) Ambient pressure changes.

(3) Electromagnetic radiation.

(4) Mechanical shock and vibration.

(5) Ambient hydrocarbons—if using a FID analyzer that uses ambient air as FID burner air.

(c) Use mounting hardware as required for securing flexible connectors, ambient sensors, and other equipment. Use structurally sound mounting points such as vehicle frames, trailer hitch receivers, walkspaces, and payload tie-down fittings. We recommend mounting hardware such as clamps, suction cups, and magnets that are specifically designed for your application. We also recommend considering mounting hardware such as commercially available bicycle racks, trailer hitches, and luggage racks where applicable.

(d) Field testing may require portable electrical power to run your test equipment. Power your equipment, as follows:

(1) You may use electrical power from the vehicle, equipment, or vessel, up to the highest power level, such that all the following are true:

(i) The power system is capable of safely supplying power, such that the power demand for testing does not overload the power system.

(ii) The engine emissions do not change significantly as a result of the power demand for testing.

(iii) The power demand for testing does not increase output from the engine by more than 1% of its maximum power.

(2) You may install your own portable power supply. For example, you may use batteries, fuel cells, a portable generator, or any other power supply to supplement or replace your use of vehicle power. You may connect an external power source directly to the vehicle's, vessel's, or equipment's power system; however, during a test interval (such as an NTE event) you must not supply power to the vehicle's power system in excess of 1% of the engine's maximum power.

■ 137. Section 1065.915 is amended by revising paragraph (a) before the table and paragraphs (c), (d)(1), and (d)(5)(iii)(B) to read as follows:

**§ 1065.915 PEMS instruments.**

(a) *Instrument specifications.* We recommend that you use PEMS that meet the specifications of subpart C of this part. For unrestricted use of PEMS in a laboratory or similar environment, use a PEMS that meets the same

specifications as each lab instrument it replaces. For field testing or for testing with PEMS in a laboratory or similar environment, under the provisions of § 1065.905(b), the specifications in the following table apply instead of the specifications in Table 1 of § 1065.205.

* * * * *

(c) *Field-testing ambient effects on PEMS.* We recommend that you use PEMS that are only minimally affected by ambient conditions such as temperature, pressure, humidity, physical orientation, mechanical shock and vibration, electromagnetic radiation, and ambient hydrocarbons. Follow the PEMS manufacturer's instructions for proper installation to isolate PEMS from ambient conditions that affect their performance. If a PEMS is inherently affected by ambient conditions that you cannot control, you may monitor those conditions and adjust the PEMS signals to compensate for the ambient effect. The standard-setting part may also specify the use of one or more field-testing adjustments or measurement allowances that you apply to results or standards to account for ambient effects on PEMS.

(d) * * *

(1) *Recording ECM signals.* If your ECM updates a broadcast signal more or less frequently than 1 Hz, process data as follows:

(i) If your ECM updates a broadcast signal more frequently than 1 Hz, use PEMS to sample and record the signal's value more frequently. Calculate and record the 1 Hz mean of the more frequently updated data.

(ii) If your ECM updates a broadcast signal less frequently than 1 Hz, use PEMS to sample and record the signal's value at the most frequent rate. Linearly interpolate between recorded values and record the interpolated values at 1 Hz.

(iii) Optionally, you may use PEMS to electronically filter the ECM signals to meet the rise time and fall time specifications in Table 1 of this section. Record the filtered signal at 1 Hz.

* * * * *

(5) * * *

(iii) * * *

(B) Use a single BSFC value that approximates the BSFC value over a test interval (as defined in subpart K of this part). This value may be a nominal BSFC value for all engine operation determined over one or more laboratory duty cycles, or it may be any other BSFC that you determine. If you use a nominal BSFC, we recommend that you select a value based on the BSFC measured over laboratory duty cycles that best represent the range of engine operation that defines a test interval for field-testing. You may use the methods of this paragraph (d)(5)(iii)(B) only if it does not adversely affect your ability to demonstrate compliance with applicable standards.

* * * * *

■ 138. Section 1065.920 is amended by revising paragraphs (a), (b)(4)(iii), and (b)(7) introductory text to read as follows:

**§ 1065.920 PEMS calibrations and verifications.**

(a) *Subsystem calibrations and verifications.* Use all the applicable calibrations and verifications in subpart D of this part, including the linearity verifications in § 1065.307, to calibrate and verify PEMS. Note that a PEMS does not have to meet the system-response specifications of § 1065.308 if it meets the overall verification described in paragraph (b) of this section. This section does not apply to ECM signals.

(b) * * *

(4) * * *

(iii) If the standard-setting part specifies the use of a measurement allowance for field testing, also apply the measurement allowance during calibration using good engineering judgment. If the measurement allowance is normally added to the standard, this means you must subtract the measurement allowance from the measured PEMS brake-specific emission result.

* * * * *

(7) The PEMS passes this verification if any one of the following are true for each constituent:

* * * * *

■ 139. Section 1065.925 is amended by revising paragraph (h) to read as follows:

**§ 1065.925 PEMS preparation for field testing.**

* * * * *

(h) Verify the amount of contamination in the PEMS HC sampling system as follows:

(1) Select the HC analyzers' ranges for measuring the maximum concentration expected at the HC standard.

(2) Zero the HC analyzers using a zero gas or ambient air introduced at the analyzer port. When zeroing the FIDs, use the FIDs' burner air that would be used for in-use measurements (generally either ambient air or a portable source of burner air).

(3) Span the HC analyzers using span gas introduced at the analyzer port. When spanning the FIDs, use the FIDs' burner air that would be used in-use (for example, use ambient air or a portable source of burner air).

(4) Overflow zero or ambient air at the HC probe or into a fitting between the HC probe and the transfer line.

(5) Measure the HC concentration in the sampling system:

(i) For continuous sampling, record the mean HC concentration as overflow zero air flows.

(ii) For batch sampling, fill the sample medium and record its mean concentration.

(6) Record this value as the initial HC concentration, $x_{THCinit}$, and use it to correct measured values as described in § 1065.660.

(7) If the initial HC concentration exceeds the greater of the following values, determine the source of the contamination and take corrective action, such as purging the system or replacing contaminated portions:

(i) 2% of the flow-weighted mean concentration expected at the standard or measured during testing.

(ii) 2 μmol/mol.

(8) If corrective action does not resolve the deficiency, you may use a contaminated HC system if it does not prevent you from demonstrating compliance with the applicable emission standards.

■ 140. Section 1065.935 is amended by revising paragraphs (e)(1) and (g)(5) to read as follows:

**§ 1065.935 Emission test sequence for field testing.**

* * * * *

(e) * * *

(1) Continue sampling as needed to get an appropriate amount of emission measurement, according to the standard setting part. If the standard-setting part does not describe when to stop sampling, develop a written protocol before you start testing to establish how you will stop sampling. You may not determine when to stop testing based on emission results.

* * * * *

(g) * * *

(5) Invalidate any test intervals that do not meet the drift criterion in § 1065.550. For NMHC, invalidate any test intervals if the difference between the uncorrected and the corrected brake-specific NMHC emission values are within ±10% of the uncorrected results or the applicable standard, whichever is greater. For test intervals that do meet the drift criterion, correct those test intervals for drift according to § 1065.672 and use the drift corrected results in emissions calculations.

* * * * *

## Subpart K—[Amended]

■ 141. Section 1065.1001 is amended by revising the definitions for ''Designated Compliance Officer'', ''Regression statistics'' and ''Tolerance'' and adding definitions in alphabetical order for ''Dilution ratio'', ''Measurement allowance'', ''Mode'', ''NIST-accepted'', ''Recommend'', ''Uncertainty'', and ''Work'' to read as follows:

### § 1065.1001 Definitions.

* * * * *

*Designated Compliance Officer* means the Director, Compliance and Innovative Strategies Division (6405–J), U.S. Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460.

* * * * *

*Dilution ratio (DR)* means the amount of diluted exhaust per amount of undiluted exhaust.

* * * * *

*Measurement allowance* means a specified adjustment in the applicable emission standard or a measured emission value to reflect the relative quality of the measurement. See the standard-setting part to determine whether any measurement allowances apply for your testing. Measurement allowances generally apply only for field testing and are intended to account for reduced accuracy or precision that result from using field-grade measurement systems.

*Mode* means one of the following:

(1) A distinct combination of engine speed and load for steady-state testing.

(2) A continuous combination of speeds and loads specifying a transition during a ramped-modal test.

(3) A distinct operator demand setting, such as would occur when testing locomotives or constant-speed engines.

*NIST-accepted* means relating to a value that has been assigned or named by NIST.

* * * * *

*Recommend* has the meaning given in § 1065.201.

*Regression statistics* means any of the regression statistics specified in § 1065.602.

* * * * *

*Tolerance* means the interval in which at least 95% of a set of recorded values of a certain quantity must lie. Use the specified recording frequencies and time intervals to determine if a quantity is within the applicable tolerance. The concept of tolerance is intended to address random variability. You may not take advantage of the tolerance specification to incorporate a bias into a measurement.

* * * * *

*Uncertainty* means uncertainty with respect to NIST-traceability. See the definition of NIST-traceable in this section.

* * * * *

*Work* has the meaning given in § 1065.110.

* * * * *

■ 142. Section 1065.1005 is amended by revising paragraphs (a) and (g) to read as follows:

### § 1065.1005 Symbols, abbreviations, acronyms, and units of measure.

* * * * *

(a) *Symbols for quantities.* This part uses the following symbols and units of measure for various quantities:

| Symbol | Quantity | Unit | Unit symbol | Base SI units |
|---|---|---|---|---|
| % | percent | 0.01 | % | $10^{-2}$ |
| $\alpha$ | atomic hydrogen to carbon ratio | mole per mole | mol/mol | 1 |
| $A$ | area | square meter | m2 | m2 |
| $A_0$ | intercept of least squares regression | | | |
| $A_1$ | slope of least squares regression | | | |
| $\beta$ | ratio of diameters | meter per meter | m/m | 1 |
| $\beta$ | atomic oxygen to carbon ratio | mole per mole | mol/mol | 1 |
| $C^{\#}$ | number of carbon atoms in a molecule | | | |
| $d$ | Diameter | meter | m | m |
| $DR$ | dilution ratio | mole per mol | mol/mol | 1 |
| $\varepsilon$ | error between a quantity and its reference | | | |
| $e$ | brake-specific basis | gram per kilowatt hour | g/(kW · h) | $g \cdot 3.6^{-1} \cdot 10^{6} \cdot m^{-2} \cdot kg \cdot s^{2}$ |
| $F$ | F-test statistic | | | |
| $f$ | frequency | hertz | Hz | $s^{-1}$ |
| $f_n$ | rotational frequency (shaft) | revolutions per minute | rev/min | $2 \cdot pi \cdot 60^{-1} \cdot s^{-1}$ |
| $\gamma$ | ratio of specific heats | (joule per kilogram kelvin) per (joule per kilogram kelvin). | (J/(kg · K))/(J/(kg · K)). | 1 |
| $K$ | correction factor | | | 1 |
| $l$ | length | meter | m | m |
| $\mu$ | viscosity, dynamic | pascal second | Pa·s | $m^{-1} \cdot kg \cdot s^{-1}$ |
| $M$ | molar mass[1] | gram per mole | g/mol | $10^{-3} \cdot kg \cdot mol^{-1}$ |
| $m$ | mass | kilogram | kg | kg |
| $\dot{m}$ | mass rate | kilogram per second | kg/s | $kg \cdot s^{-1}$ |
| $\nu$ | viscosity, kinematic | meter squared per second | $m^2/s$ | $m^2 \cdot s^{-1}$ |
| $N$ | total number in series | | | |
| $n$ | amount of substance | mole | mol | mol |
| $\dot{n}$ | amount of substance rate | mole per second | mol/s | $mol \cdot s^{-1}$ |
| $P$ | power | kilowatt | kW | $10^{3} \cdot m^{2} \cdot kg \cdot s^{-3}$ |
| $PF$ | penetration fraction | | | |
| $p$ | pressure | pascal | Pa | $m^{-1} \cdot kg \cdot s^{-2}$ |
| $\rho$ | mass density | kilogram per cubic meter | kg/m3 | $kg \cdot m^{-3}$ |
| $r$ | ratio of pressures | pascal per pascal | Pa/Pa | 1 |
| $R^2$ | coefficient of determination | | | |
| $Ra$ | average surface roughness | micrometer | µm | $m^{-6}$ |
| $Re^{\#}$ | Reynolds number | | | |
| $RF$ | response factor | | | |
| $RH\%$ | relative humidity | 0.01 | % | $10^{-2}$ |
| $\sigma$ | non-biased standard deviation | | | |
| $S$ | Sutherland constant | kelvin | K | K |

| Symbol | Quantity | Unit | Unit symbol | Base SI units |
|---|---|---|---|---|
| *SEE* | standard estimate of error | | | |
| *T* | absolute temperature | kelvin | K | K |
| *T* | Celsius temperature | degree Celsius | °C | K–273.15 |
| *T* | torque (moment of force) | newton meter | N · m | $m^2 \cdot kg \cdot s^{-2}$ |
| *t* | time | second | s | s |
| $\Delta t$ | time interval, period, 1/frequency | second | s | s |
| *V* | volume | cubic meter | $m^3$ | $m^3$ |
| $\dot{V}$ | volume rate | cubic meter per second | $m^3/s$ | $m^3 \cdot s^{-1}$ |
| *W* | work | kilowatt hour | kW · h | $3.6 \cdot 10^{-6} \cdot m^2 \cdot kg \cdot s^{-2}$ |
| $w_c$ | carbon mass concentration | gram per gram | g/g | 1 |
| *x* | amount of substance mole fraction[2] | mole per mole | mol/mol | ([1]) |
| $\bar{x}$ | flow-weighted mean concentration | mole per mole | mol/mol | 1 |
| *y* | generic variable | | | |

[1] See paragraph (f)(2) of this section for the values to use for molar masses. Note that in the cases of $NO_X$ and HC, the regulations specify effective molar masses based on assumed speciation rather than actual speciation.
[2] Note that mole fractions for THC, THCE, NMHC, NMHCE, and NOTHC are expressed on a C1 equivalent basis.

* * * * *

(g) *Other acronyms and abbreviations.* This part uses the following additional abbreviations and acronyms:

ASTM American Society for Testing and Materials
BMD bag mini-diluter
BSFC brake-specific fuel consumption
CARB California Air Resources Board
CFR Code of Federal Regulations
CFV critical-flow venturi
CI compression-ignition
CITT Curb Idle Transmission Torque
CLD chemiluminescent detector
CVS constant-volume sampler
DF deterioration factor
ECM electronic control module
EFC electronic flow control
EGR exhaust gas recirculation
EPA Environmental Protection Agency
FEL Family Emission Limit
FID flame-ionization detector
IBP initial boiling point
ISO International Organization for Standardization
LPG liquefied petroleum gas
NDIR nondispersive infrared
NDUV nondispersive ultraviolet
NIST National Institute for Standards and Technology
PDP positive-displacement pump
PEMS portable emission measurement system
PFD partial-flow dilution
PMP Polymethylpentene
pt. a single point at the mean value expected at the standard
PTFE polytetrafluoroethylene (commonly known as Teflon™)
RE rounding error
RMC ramped-modal cycle
RMS root-mean square
RTD resistive temperature detector
SSV subsonic venturi
SI spark-ignition
UCL upper confidence limit
UFM ultrasonic flow meter
U.S.C. United States Code

■ 143. Section 1065.1010 is revised to read as follows:

**§ 1065.1010 Reference materials.**

Documents listed in this section have been incorporated by reference into this part. The Director of the Federal Register approved the incorporation by reference as prescribed in 5 U.S.C. 552(a) and 1 CFR part 51. Anyone may inspect copies at the U.S. EPA, Air and Radiation Docket and Information Center, 1301 Constitution Ave., NW., Room B102, EPA West Building, Washington, DC 20460 or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030, or go to: *http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html.*

(a) *ASTM material.* Table 1 of this section lists material from the American Society for Testing and Materials that we have incorporated by reference. The first column lists the number and name of the material. The second column lists the sections of this part where we reference it. Anyone may purchase copies of these materials from the American Society for Testing and Materials, 100 Barr Harbor Dr., P.O. Box C700, West Conshohocken, PA 19428 or *www.astm.com.* Table 1 follows:

TABLE 1 OF § 1065.1010.–ASTM MATERIALS

| Document No. and name | Part 1065 reference |
|---|---|
| ASTM D86–07a, Standard Test Method for Distillation of Petroleum Products at Atmospheric Pressure | 1065.703, 1065.710 |
| ASTM D93–07, Standard Test Methods for Flash Point by Pensky-Martens Closed Cup Tester | 1065.703 |
| ASTM D445–06, Standard Test Method for Kinematic Viscosity of Transparent and Opaque Liquids (and the Calculation of Dynamic Viscosity) | 1065.703 |
| ASTM D613–05, Standard Test Method for Cetane Number of Diesel Fuel Oil | 1065.703 |
| ASTM D910–07, Standard Specification for Aviation Gasolines | 1065.701 |
| ASTM D975–07b, Standard Specification for Diesel Fuel Oils | 1065.701 |
| ASTM D1267–02 (Reapproved 2007), Standard Test Method for Gage Vapor Pressure of Liquefied Petroleum (LP) Gases (LP-Gas Method) | 1065.720 |
| ASTM D1319–03, Standard Test Method for Hydrocarbon Types in Liquid Petroleum Products by Fluorescent Indicator Adsorption | 1065.710 |
| ASTM D1655–07e01, Standard Specification for Aviation Turbine Fuels | 1065.701 |
| ASTM D1837–02a (Reapproved 2007), Standard Test Method for Volatility of Liquefied Petroleum (LP) Gases | 1065.720 |
| ASTM D1838–07, Standard Test Method for Copper Strip Corrosion by Liquefied Petroleum (LP) Gases | 1065.720 |
| ASTM D1945–03, Standard Test Method for Analysis of Natural Gas by Gas Chromatography | 1065.715 |
| ASTM D2158–05, Standard Test Method for Residues in Liquefied Petroleum (LP) Gases | 1065.720 |

TABLE 1 OF § 1065.1010.–ASTM MATERIALS—Continued

| Document No. and name | Part 1065 reference |
|---|---|
| ASTM D2163–05, Standard Test Method for Analysis of Liquefied Petroleum (LP) Gases and Propene Concentrates by Gas Chromatography | 1065.720 |
| ASTM D2598–02 (Reapproved 2007), Standard Practice for Calculation of Certain Physical Properties of Liquefied Petroleum (LP) Gases from Compositional Analysis | 1065.720 |
| ASTM D2622–07, Standard Test Method for Sulfur in Petroleum Products by Wavelength Dispersive X-ray Fluorescence Spectrometry | 1065.703, 1065.710 |
| ASTM D2713–91 (Reapproved 2001), Standard Test Method for Dryness of Propane (Valve Freeze Method) | 1065.720 |
| ASTM D2784–06, Standard Test Method for Sulfur in Liquefied Petroleum Gases (Oxy-Hydrogen Burner or Lamp) | 1065.720 |
| ASTM D2880–03, Standard Specification for Gas Turbine Fuel Oils | 1065.701 |
| ASTM D2986–95a (Reapproved 1999), Standard Practice for Evaluation of Air Assay Media by the Monodisperse DOP (Dioctyl Phthalate) Smoke Test | 1065.170 |
| ASTM D3231–07, Standard Test Method for Phosphorus in Gasoline | 1065.710 |
| ASTM D3237–06e01, Standard Test Method for Lead in Gasoline By Atomic Absorption Spectroscopy | 1065.710 |
| ASTM D4052–96e01 (Reapproved 2002), Standard Test Method for Density and Relative Density of Liquids by Digital Density Meter | 1065.703 |
| ASTM D4814–07a, Standard Specification for Automotive Spark-Ignition Engine Fuel | 1065.701 |
| ASTM D5186–03, Standard Test Method for Determination of the Aromatic Content and Polynuclear Aromatic Content of Diesel Fuels and Aviation Turbine Fuels By Supercritical Fluid Chromatography | 1065.703 |
| ASTM D5191–07, Standard Test Method for Vapor Pressure of Petroleum Products (Mini Method) | 1065.710 |
| ASTM D5797–07, Standard Specification for Fuel Methanol (M70–M85) for Automotive Spark-Ignition Engines | 1065.701 |
| ASTM D5798–07, Standard Specification for Fuel Ethanol (Ed75–Ed85) for Automotive Spark-Ignition Engines | 1065.701 |
| ASTM D6615–06, Standard Specification for Jet B Wide-Cut Aviation Turbine Fuel | 1065.701 |
| ASTM D6751–07b, Standard Specification for Biodiesel Fuel Blend Stock (B100) for Middle Distillate Fuels | 1065.701 |
| ASTM D6985–04a, Standard Specification for Middle Distillate Fuel Oil—Military Marine Applications | 1065.701 |
| ASTM F1471–93 (Reapproved 2001), Standard Test Method for Air Cleaning Performance of a High-Efficiency Particulate Air Filter System | 1065.1001 |

(b) *ISO material*. Table 2 of this section lists material from the International Organization for Standardization that we have incorporated by reference. The first column lists the number and name of the material. The second column lists the section of this part where we reference it. Anyone may purchase copies of these materials from the International Organization for Standardization, Case Postale 56, CH–1211 Geneva 20, Switzerland or *www.iso.org*. Table 2 follows:

TABLE 2 OF § 1065.1010.—ISO MATERIALS

| Document No. and name | Part 1065 reference |
|---|---|
| ISO 2719:2002, Determination of flash point—Pensky-Martens closed cup method | 1065.705 |
| ISO 3016:1994, Petroleum products—Determination of pour point | 1065.705 |
| ISO 3104:1994/Cor 1:1997, Petroleum products—Transparent and opaque liquids—Determination of kinematic viscosity and calculation of dynamic viscosity | 1065.705 |
| ISO 3675:1998, Crude petroleum and liquid petroleum products—Laboratory determination of density—Hydrometer method | 1065.705 |
| ISO 3733:1999, Petroleum products and bituminous materials—Determination of water—Distillation method | 1065.705 |
| ISO 6245:2001, Petroleum products—Determination of ash | 1065.705 |
| ISO 8217:2005, Petroleum products—Fuels (class F)—Specifications of marine fuels | 1065.705 |
| ISO 8754:2003, Petroleum products—Determination of sulfur content—Energy-dispersive X-ray fluorescence spectrometry | 1065.705 |
| ISO 10307–2:1993, Petroleum products—Total sediment in residual fuel oils—Part 2: Determination using standard procedures for ageing | 1065.705 |
| ISO 10370:1993/Cor 1:1996, Petroleum products—Determination of carbon residue—Micro method | 1065.705 |
| ISO 10478:1994, Petroleum products—Determination of aluminium and silicon in fuel oils—Inductively coupled plasma emission and atomic absorption spectroscopy methods | 1065.705 |
| ISO 12185:1996/Cor 1:2001, Crude petroleum and petroleum products—Determination of density—Oscillating U-tube method | 1065.705 |
| ISO 14596:2007, Petroleum products—Determination of sulfur content—Wavelength-dispersive X-ray fluorescence spectrometry | 1065.705 |
| ISO 14597:1997, Petroleum products—Determination of vanadium and nickel content—Wavelength-dispersive X-ray fluorescence spectrometry | 1065.705 |
| ISO 14644–1:1999, Cleanrooms and associated controlled environments | 1065.190 |

(c) *NIST* material. Table 3 of this section lists material from the National Institute of Standards and Technology that we have incorporated by reference. The first column lists the number and name of the material. The second column lists the section of this part where we reference it. Anyone may purchase copies of these materials from the Government Printing Office, Washington, DC 20402 or download them free from the Internet at *www.nist.gov*. Table 3 follows:

TABLE 3 OF § 1065.1010.—NIST MATERIALS

| Document No. and name | Part 1065 reference |
|---|---|
| ISONIST Special Publication 811, 1995 Edition, Guide for the Use of the International System of Units (SI), Barry N. Taylor, Physics Laboratory. | 1065.20, 1065.1001, 1065.1005 |
| NIST Technical Note 1297, 1994 Edition, Guidelines for Evaluating and Expressing the Uncertainty of NIST Measurement Results, Barry N. Taylor and Chris E. Kuyatt. | 1065.1001 |

(d) *SAE material.* Table 4 of this section lists material from the Society of Automotive Engineering that we have incorporated by reference. The first column lists the number and name of the material. The second column lists the sections of this part where we reference it. Anyone may purchase copies of these materials from the Society of Automotive Engineers, 400 Commonwealth Drive, Warrendale, PA 15096 or *www.sae.org.* Table 4 follows:

TABLE 4 OF § 1065.1010.—SAE MATERIALS

| Document No. and name | Part 1065 reference |
|---|---|
| ''Optimization of Flame Ionization Detector for Determination of Hydrocarbon in Diluted Automotive Exhausts,'' Reschke Glen D., SAE 770141 | 1065.360 |
| ''Relationships Between Instantaneous and Measured Emissions in Heavy Duty Applications,'' Ganesan B. and Clark N. N., West Virginia University, SAE 2001–01–3536 | 1065.309 |

(e) *California Air Resources Board material.* Table 5 of this section lists material from the California Air Resources Board that we have incorporated by reference. The first column lists the number and name of the material. The second column lists the sections of this part where we reference it. Anyone may get copies of these materials from the California Air Resources Board, 9528 Telstar Ave., El Monte, California 91731. Table 5 follows:

TABLE 5 OF § 1065.1010.—CALIFORNIA AIR RESOURCES BOARD MATERIALS

| Document No. and name | Part 1065 reference |
|---|---|
| ''California Non-Methane Organic Gas Test Procedures,'' Amended July 30, 2002, Mobile Source Division, California Air Resources Board | 1065.805 |

(f) *Institute of Petroleum material.* Table 6 of this section lists the Institute of Petroleum standard test methods material from the Energy Institute that we have incorporated by reference. The first column lists the number and name of the material. The second column lists the section of this part where we reference it. Anyone may purchase copies of these materials from the Energy Institute, 61 New Cavendish Street , London, W1G 7AR, UK , +44 (0)20 7467 7100 or *www.energyinst.org.uk.* Table 6 follows:

TABLE 6 OF § 1065.1010.—INSTITUTE OF PETROLEUM MATERIALS

| Document No. and name | Part 1065 reference |
|---|---|
| IP–470, Determination of aluminum, silicon, vanadium, nickel, iron, calcium, zinc, and sodium in residual fuels by atomic absorption spectrometry | 1065.705 |
| IP–500, Determination of the phosphorus content of residual fuels by ultra-violet spectrometry | 1065.705 |
| IP–501, Determination of aluminum, silicon, vanadium, nickel, iron, sodium, calcium, zinc and phosphorus in residual fuel oil by ashing, fusion and inductively coupled plasma emission spectrometry | 1065.705 |

## PART 1068—GENERAL COMPLIANCE PROVISIONS FOR NONROAD PROGRAMS

■ 144. The authority citation for part 1068 continues to read as follows:

**Authority:** 42 U.S.C. 7401–7671q.

### Subpart A—[Amended]

■ 145. Section 1068.1 is revised by adding paragraphs (a)(6) and (a)(7) and revising paragraphs (b)(4) and (b)(6) to read as follows:

**§ 1068.1 Does this part apply to me?**

(a) * * *

(6) Locomotives and locomotive engines we regulate under 40 CFR part 1033.

(7) Marine compression-ignition engines we regulate under 40 CFR part 1042.

(b) * * *

(4) Locomotives and locomotive engines we regulate under 40 CFR part 92.

* * * * *

(6) Marine diesel engines we regulate under 40 CFR part 89 or 94.

* * * * *

[FR Doc. E8–7999 Filed 5–5–08; 8:45 am]

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Federal Register

Tuesday,
May 6, 2008

# Part III

# Department of the Interior

## Fish and Wildlife Services

## 50 CFR Part 17

## Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the Louisiana Black Bear (Ursus americanus luteolus); Proposed Rule

**DEPARTMENT OF THE INTERIOR**

**Fish and Wildlife Service**

**50 CFR Part 17**

**[FWS–R4–ES–2008–0047; 92210–1117–0000–FY08–B4]**

**RIN 1018–AV52**

# Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the Louisiana Black Bear (Ursus americanus luteolus)

**AGENCY:** Fish and Wildlife Service, Interior.

**ACTION:** Proposed rule.

**SUMMARY:** We, the U.S. Fish and Wildlife Service (Service), propose to designate critical habitat for the Louisiana black bear under the Endangered Species Act of 1973, as amended (Act). Concurrently, we withdraw our December 2, 1993, proposal for Louisiana black bear critical habitat (58 FR 63560). In total, approximately 1,330,000 acres (538,894 hectares (ha)) fall within the boundaries of this proposed critical habitat designation. The proposed critical habitat is located in Avoyelles, East Carroll, Catahoula, Concordia, Franklin, Iberia, Iberville, Madison, Pointe Coupee, Richland, St. Martin, St. Mary, Tensas, West Carroll, and West Feliciana Parishes, Louisiana.

**DATES:** We will accept comments received or postmarked on or before July 7, 2008. We must receive requests for public hearings, in writing, at the address shown in the **ADDRESSES** section by June 20, 2008.

**ADDRESSES:** You may submit comments by one of the following methods:

- *Federal eRulemaking Portal: http://www.regulations.gov*. Follow the instructions for submitting comments.
- *U.S. mail or hand-delivery:* Public Comments Processing, Attn: FWS–R4–ES–2008–0047; Division of Policy and Directives Management; U.S. Fish and Wildlife Service; 4401 N. Fairfax Drive, Suite 222; Arlington, VA 22203.

We will not accept e-mail or faxes. We will post all comments on *http://www.regulations.gov*. This generally means that we will post any personal information you provide us (see the Public Comments section below for more information).

**FOR FURTHER INFORMATION CONTACT:** James Boggs, Field Supervisor, U.S. Fish and Wildlife Service, Louisiana Fish and Wildlife Office, 646 Cajundome Boulevard, Suite 400, Lafayette, LA 70506; telephone 337–291–3100; facsimile [337–291–3139]. If you use a telecommunications device for the deaf (TDD), call the Federal Information Relay Service (FIRS) at 800–877–8339.

**SUPPLEMENTARY INFORMATION:**

## Public Comments

We intend that any final action resulting from this proposal will be as accurate and as effective as possible. Therefore, we request comments or suggestions on this proposed rule. We particularly seek comments concerning:

(1) The reasons why we should or should not designate habitat as ''critical habitat'' under section 4 of the Act (16 U.S.C. 1531 *et seq.*), including whether there are threats to the species from human activity, the degree of which can be expected to increase due to the designation, and whether the benefit of designation would outweigh threats to the species caused by the designation, such that the designation of critical habitat is prudent.

(2) Specific information on:

- The amount and distribution of Louisiana black bear habitat,
- What areas occupied at the time of listing that contain features essential for the conservation of the species we should include in the designation and why,
- What areas not occupied at the time of listing are essential to the conservation of the species and why, and
- Data or comments to assist us in more clearly defining and delineating critical habitat boundaries.

(3) Land use designations and current or planned activities in the subject areas and their possible impacts on proposed critical habitat.

(4) Any foreseeable economic, national security, or other relevant impacts resulting from the proposed designation, and, in particular, any impacts on small entities, and the benefits of including or excluding areas that exhibit these impacts.

(5) Whether we could improve or modify our approach to designating critical habitat in any way to provide for greater public participation and understanding, or to better accommodate public concerns and comments.

(6) Whether the benefits of exclusion of any particular area from critical habitat would outweigh the benefits of inclusion under section 4(b)(2) of the Act, and more specifically, whether U.S. Department of Agriculture (USDA) Wetland Reserve Program permanent easements on privately owned lands provide sufficient protection and management to satisfy the criteria necessary for exclusion from critical habitat (*i.e.*, the benefits of exclusion outweigh the benefits of inclusion).

You may submit your comments and materials concerning this proposed rule by one of the methods listed in the **ADDRESSES** section. We will not consider comments sent by e-mail or fax or to an address not listed in the **ADDRESSES** section.

If you submit a comment via *http://www.regulations.gov*, your entire comment—including any personal identifying information—will be posted on the Web site. If you submit a hardcopy comment that includes personal identifying information, you may request at the top of your document that we withhold this information from public review. However, we cannot guarantee that we will be able to do so. We will post all hardcopy comments on *http://www.regulations.gov*.

Comments and materials we receive, as well as supporting documentation we used in preparing this proposed rule, will be available for public inspection on *http://www.regulations.gov*, or by appointment, during normal business hours, at the U.S. Fish and Wildlife Service, Louisiana Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT**).

## Background

It is our intent to discuss only those topics directly relevant to the designation of critical habitat in this proposed rule. For more information on the threatened Louisiana black bear or its habitat, refer to the final listing rule published in the **Federal Register** on January 7, 1992 (57 FR 588), and to our 1995 final recovery plan, which is available online at *http://www.regulations.gov* or from the Louisiana Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT**).

This proposal replaces our original critical habitat proposal for the Louisiana black bear published on December 2, 1993 (58 FR 63560). In that rule, we proposed three critical habitat units encompassing most of the Lower Mississippi River Valley in Louisiana: (1) Tensas River Basin (1,671,782 ac (676,546 ha)), a small portion of which was located in the State of Mississippi lying west of the Mississippi River Main channel; (2) Atchafalaya Floodway (978,279 ac (395,895 ha)); and (3) Lower Iberia-St. Mary Parish (364,770 ac (147,617 ha)). The total area within the proposed boundary was approximately 3 million acres (1,220,058 ha), of which approximately 1.25 million acres (505,857 ha) were estimated to contain the essential physical and biological features. There has been a significant amount of new information gathered

about this subspecies and its habitat since 1993. We are therefore withdrawing our original December 2, 1993, proposal to consider that new information and to comply with a September 5, 2007, order from the U.S. District Court for the Western District of Louisiana (see Previous Federal Actions section).

The Louisiana black bear is one of 16 subspecies of the American black bear (*Ursus americanus*). The black bear is a large, bulky mammal with long black hair and a short, well-haired tail. The facial profile is blunt, the eyes small, and the nose pad broad with large nostrils. There are five toes with short, curved claws on the front and hind feet. Although weight varies considerably throughout their range, adult male black bears can weigh more than 600 pounds (lbs) (272 kilograms (kg)); adult females generally weigh less than 300 lbs (136 kg) (Pelton 1982, p. 504). The median estimated weights for male and female Louisiana black bears in north Louisiana were 292 lbs (133 kg) and 147 lbs (67 kg) respectively (Weaver 1999, p. 26).

Bear activity revolves primarily around the search for food, water, cover, and mates during the breeding season. Bears are best described as opportunistic feeders, as they eat almost anything that is available; thus, they are typically omnivorous (Pelton 1982, p. 504). Their diet varies seasonally and includes primarily succulent vegetation during spring, fruits and grains in summer, and hard mast (such as acorns and pecans) during fall (Weaver 1999, pp. 149, 157). Black bears utilize all levels of the forest for feeding; they can gather foods from tree tops and vines, but also grub in fallen logs for insects. The growth rate, maximum size, breeding age, litter size, and cub survival of black bears are all correlated with nutrition (Black Bear Conservation Committee (BBCC) 1997, p. 17).

Home range sizes vary annually and seasonally (BBCC 2005, p. 11) and home range configuration appears to be influenced by available forest cover (Marchinton 1995, p. 48). Black bears do not truly hibernate, but go through a dormancy period termed ''carnivoran lethargy,'' which is a period of torpor which helps them survive food shortages and severe weather during the winter. In warmer climates, such as in Louisiana, bears can remain active all winter (Wagner 1995, pp. 24–25). Bears den in heavy cover or tree cavities during the winter months (Weaver 1999, p. 118) and den type may vary depending on the habitat. Cubs are born in winter dens at the end of January or the beginning of February (Weaver 1990, p. 5). Bears may enter dens between November and early January depending on latitude, available food, sex, age, and local weather conditions (Weaver 1990, p. 6). Adult females generally enter the den first, followed by subadults and adult males. At the end of the dormancy period, females with cubs are usually the last to leave the den. Adult male bears generally have home ranges 3 to 8 times larger than adult females (Pelton 1982, p. 507) and have been observed to travel up to 35 miles (mi) (56 kilometers (km)) from their capture site (BBCC 2005, p. 11). Changes in food resources can provide the stimulus for extensive movements (Pelton 1982, p. 507). Additionally, older adult males exert social pressure on younger bears, especially during the spring and summer breeding season, forcing them to disperse to other areas (Pelton 1982, p. 507).

Like other black bears, the Louisiana black bear is a habitat generalist. Large tracts of bottomland hardwood (BLH) forest communities having high species and age class diversity can provide for the black bear's life requisites (*e.g.*, escape cover, denning sites, and hard and soft mast supplies) without intensive management (BBCC 2005, p. 21). We use the term BLH forest community with no particular inference to hydrologic influence; we use this term to mean forests within southeastern United States floodplains which can consist of a number of woody species occupying positions of dominance and co-dominance (BBCC 1997, p. 15). Other habitat types may be utilized, including marsh; upland forested areas; forested spoil areas along bayous, brackish marsh, and freshwater marsh; salt domes; and agricultural fields (Nyland 1995, p. 48; Weaver 1999, p. 157). Large cavity trees (especially cypress or tupelo gum) that are commonly found along water courses are important for denning.

The Louisiana black bear was once a common inhabitant of forested areas in east Texas, Louisiana, and southern Mississippi (BBCC 1997, p. 10). Bear densities were likely highest within BLH and oak-hickory forest communities where hard mast production was greater than in other habitats (BBCC 1997, p. 12). While Hall included the southernmost counties in Arkansas as part of the historic range (1981, p. 950), there were no data to support doing so at the time of listing; accordingly, Arkansas is not considered part of the listed range (January 7, 1992; 57 FR 588).

The Louisiana black bear was listed as threatened under the Act on January 7, 1992 (57 FR 588), due to extensive habitat loss and modification, as well as the ongoing threats of continued habitat modification and human-related mortality. More than 80 percent of suitable Louisiana black bear habitat had been lost by the time of listing (1992) primarily due to clearing land for agriculture (Weaver 1990, p. 1); the remaining habitat quality had been reduced by fragmentation and human activities. At that time, Louisiana black bears were generally known to occur in the Lower Mississippi River Alluvial Valley BLH forest communities of the Tensas River Basin of northeastern Louisiana and the Atchafalaya River Basin in central and southern Louisiana (Weaver 1990, p. 2; BBCC, 1997, p. 12); however, occupied habitat had not been definitively delineated. Those forest communities were likely sites for population persistence due to their remoteness and habitat productivity (BBCC 1997, p. 13). All known breeding populations were believed to be demographically isolated at the time of listing (BBCC 1997, p. 10). Bears had been occasionally reported in Louisiana outside of these areas, but it was unknown if those bears were reproducing females or only wandering subadults and adult males. Black bears were also known to exist in Mississippi along the Mississippi River (Weaver 1990, p. 2) and smaller areas in the lower East Pearl River and lower Pascagoula River basins of southern Mississippi (Weaver 1990, p. 2). The last native breeding group in Mississippi was last documented about 1980 (Nowak 1986, p. 7). Except for wanderers, the bear has not appeared in eastern Texas for many years (Nowak 1986, p. 7).

We use the term ''breeding habitat'' for the Louisiana black bear to indicate areas with physical evidence of reproduction (young, females with young, or lactating females). Louisiana black bear resource managers and biologists commonly refer to such areas as occupied habitat (USFWS 1995, p. 2; BBCC 1997, p. 72); however, we will use the term ''occupied habitat'' to indicate the subspecies' presence in an area at the time of listing. In contrast to sightings of adults without reproductive information, reproduction is considered evidence of a resident bear population. Dispersal by female black bears is uncommon and typically is of a short distance (Rogers 1987, p. 43). Male black bear home ranges usually encompass several female home ranges (Rogers 1987, p. 19). For instance, in the Tensas population, most male Louisiana black bear home ranges (95 percent minimum convex polygon (MCP)) were observed to include numerous female

home ranges (Weaver 1999, p. 74 and p. 308, Figure E–5). Therefore, while breeding habitat does not necessarily include all areas where individual bears may occur, it does encompass the areas known to support resident, reproducing populations. Clark *et al.* (2005, p. 246) used a similar method to update black bear distribution maps for the southeastern United States. Clark (1999, p. 105) states researchers and managers should focus on the population parameters of greatest consequence to population growth. Adult female survival is the most influential factor affecting black bear population growth (Clark 1999, pp. 103–105). Hellgren and Vaughan (1994, p. 283) conclude that managed female survival is a critical conservation need. The Black Bear Conservation Committee's (BBCC) restoration plan identified breeding habitats (as defined above) as those areas where essential management and restoration activities for the Louisiana black bear must be focused (BBCC 1997, p. 4).

Currently, Louisiana black bear breeding populations are predominantly restricted to three disjunct core (concentrated) populations, the Tensas, and the Upper Atchafalaya, and the Lower Atchafalaya River Basins, Louisiana. A fourth additional, newly forming, repatriation core population occurs in east-central Louisiana, in the vicinity of the Red River and Three Rivers Wildlife Management Areas (WMA), and Lake Ophelia National Wildlife Refuge (NWR). The Tensas River Basin (Tensas) breeding population occurs on a complex of BLH forests comprised of Tensas River NWR, adjacent Big Lake WMA, and four nearby small, relatively isolated, forested tracts formerly owned by Deltic Timber Corporation (now owned by Epps Plantation) in Tensas, Madison, Franklin, East Carroll, and Richland Parishes in Louisiana. The Deltic tracts support one of the highest densities of black bears reported for the southeastern coastal plain (Beausoleil 1999, p. 80). The Deltic tracts are approximately 14 mi (23.5 km) north of the Tensas River NWR; their closest areas are separated by only 2.5 mi (4 km) and by U.S. Interstate 20 (I–20). Historically, Louisiana black bears inhabiting the Tensas River NWR group have generally been considered a separate group of bears from those inhabiting the Deltic tracts. Only one instance of a bear moving between these two areas has been documented (Anderson 1997, p. 70). Though the two subgroups are separated by I–20 and U.S. Highway 80, a significant amount of habitat between those subgroups has been restored primarily within the last 10 years. Increased sightings and vehicular mortality of bears in the vicinity of I–20 indicate that bears are attempting to disperse (Benson 2005, p. 97). The 6 bear mortalities documented on I–20 in 2004 and the continuing regular occurrence of mortalities, versus the total of 5 mortalities in the previous 10 years indicate that bears are moving between these previously isolated populations (LDWF 2007, p. 20) and that the two subgroups have likely begun to function as one population.

Two Louisiana black bear populations are located in the Atchafalaya River Basin (BBCC 1997, p. 10). The Upper Atchafalaya River Basin population (Upper Atchafalaya) is located primarily within the Morganza Floodway and the forested areas between that Floodway and False River in Pointe Coupee Parish in Louisiana, and is approximately 110 mi (177 km) south of the Tensas population. Much of the land between these two populations has been cleared for agricultural use. The Lower Atchafalaya River Basin population (Lower Atchafalaya) is found primarily south of U.S. Highway 90 (Hwy. 90) and west of the lower Atchafalaya River and Delta, in the coastal area of St. Mary and Iberia Parishes. It is located approximately 70 mi (113 km) south of the Upper Atchafalaya population and is separated from that population by U.S. Interstate 10, Hwy. 90, the Atchafalaya River, Bayou Teche, agricultural lands, developed areas, and permanently and seasonally inundated portions of the Atchafalaya River Basin, which is not currently believed to contain breeding bears due to the flooding regime. Population expansion in the coastal area is limited by development along Hwy. 90 to the north, and by the surrounding coastal marsh, which is believed to be unsuitable for sustaining bear populations.

A fourth breeding population has been recently established in Avoyelles and Concordia Parishes, Louisiana, near the confluence of the Mississippi and Red Rivers, an area containing approximately 100,000 ac (40,469 ha) of publicly owned, forested land. This area is separated from the Tensas and the Upper Atchafalaya populations primarily by agricultural lands. As the result of a multi-agency repatriation project, 36 adult females and 82 cubs have been relocated to public lands in this area between 2001 and 2007, to reduce demographic isolation of existing populations (LDWF 2007, p. 15). This project was developed on the assumption that relocated females would remain at the new location and would be discovered by males traveling through the area. Natural reproduction of those bears was first documented in 2005, and reproduction has since been documented in 5 litters (LDWF 2006, p. 1), resulting in an additional breeding population in Louisiana.

Louisiana black bear reproduction was speculated to occur in Mississippi at the time of listing (1992) (Stinson 1996, p. 15), but was not confirmed until 2005 when a radio-collared female, moved as part of a reintroduction project in Louisiana, crossed into Mississippi and had cubs (Telesco 2006, p. 12). Breeding has been subsequently documented for several additional individuals, but to date no core breeding populations are known to exist, and it is generally believed that the majority of bears in Mississippi are males that have dispersed from populations in other States (Young 2006, p. 14). The Texas Parks and Wildlife Department has also documented black bear sightings in eastern Texas in the last 7 years, though there are currently no known Louisiana black bear breeding populations in eastern Texas (TPWD 2005, p. 3). It is probable that most of those bears are juvenile or subadult males that have roamed into the area from expanding bear populations in Arkansas and Oklahoma (TPWD 2005, p. 7). Clark *et al.* (2005, p. 250, Figure 1) indicated the presence of a small breeding population with a few individuals crossing between Louisiana and Arkansas. This is likely the result of a black bear reintroduction project in Arkansas where female bears, reintroduced onto Felsenthal National Wildlife Refuge in Arkansas, have moved south into Louisiana (LDWF 2007, p. 1).

In 1997, the Statewide Louisiana black bear population was estimated to range from 200 to 400 bears (Pelton and Van Manen 1997, p. 38). No reliable overall Louisiana black bear population estimate currently exists; however, estimates have been developed for specific geographic areas. Estimates for the Tensas River NWR population range from 119 to 131 bears (Boerson *et al.* 2003, p. 203) and, for the nearby Deltic tracts, from 34 to 47 bears (Beausoleil 1999, p. 51). The Upper Atchafalaya population was estimated to range from 68 to 86 bears and, for the Lower Atchafalaya, from 28 to 47 bears (Triant *et al.* 2004, p. 653), but these may be underestimates of the actual population numbers (Triant *et al.* 2004, p. 655). There are no population estimates for the repatriation population; however, a total of 36 females and 82 cubs have been moved to this area. Most studies of the Louisiana black bear have been

conducted in these core breeding habitat areas and therefore probably small, but unknown, numbers of bears occurring outside those areas are not included in population estimates. Population estimates for Louisiana black bears at the time of listing appear to be lower than what recent research would indicate, and there is circumstantial evidence that the population is growing (LDWF 2007, p. 22).

**Previous Federal Actions**

We listed the Louisiana black bear (*Ursus americanus luteolus*) as threatened under the Act on January 7, 1992 (57 FR 588). Other free-living bears of the species *U. americanus* within the same range specified in that rule were designated as threatened by similarity of appearance. In our final rule listing this subspecies, we determined that normal forest management activities supporting a sustained yield of timber products and wildlife habitats were compatible with Louisiana black bear's needs. Accordingly, we promulgated a special rule at 50 CFR 17.40(i) exempting the effects incidental to normal forest management activities within the subspecies' historic range, except for activities causing damage to or loss of den trees, den tree sites, or candidate den trees (57 FR 588). For the purposes of that exemption, normal forest management activities were those activities that support a sustained yield of timber products and wildlife habitats, thereby maintaining forestland conditions in occupied (*i.e.*, breeding) habitat. Research has supported this decision. In fact, in some cases, such as leaving downed tree tops and creating openings, timber management can provide or enhance black bear habitat (Weaver 1999, pp. 126–128; Hightower *et al.* 2002, p. 14; Weaver *et al.* 1990, p. 344; Lindsey and Meslow 1977, p. 424). Therefore, we do not propose changing the special rule at 50 CFR 17.40(i) as part of the critical habitat designation.

Designation of critical habitat was found to be not determinable at the time of listing. We proposed critical habitat for the Louisiana black bear on December 2, 1993 (58 FR 63560). That proposal had a 90-day comment period, ending March 2, 1994. We then reopened the public comment period from March 7, 1994 (59 FR 10607) through April 4, 1994. During that reopened comment period, we held a public hearing in New Iberia, Louisiana, on March 23, 1994. On April 1, 1994, we extended the reopened comment period through May 25, 1994, and announced two more public hearings (May 10, 1994, in West Monroe, Louisiana, and May 11, 1994, New Iberia, Louisiana) (59 FR 15366). We never published a final rule designating critical habitat. On September 6, 2005, Mr. Harold Schoeffler and Louisiana Crawfish Producers Association—West filed suit in U.S. District Court for the Western District of Louisiana (Civil Action No. CV05–1573 (W.D. La.)) regarding the Service's failure to designate critical habitat for the Louisiana black bear.

On June 25, 2007, the District Court ordered the Service to withdraw the December 2, 1993, proposed critical habitat rule and create a new proposed critical habitat designation by no later than 4 months from the date of the judgment and to publish a final designation by no later than 8 months from the date of the proposed or new rule. On September 5, 2007, following a settlement agreement, the Court revised its order to require the Service to: (1) Withdraw the December 2, 1993, proposed rule and submit a prudency determination and, if prudent, a new proposed critical habitat designation to the **Federal Register** by April 26, 2008; and (2) submit a final critical habitat determination, if applicable, to the **Federal Register** by February 26, 2009. This publication is: (1) Our withdrawal of the 1993 proposal; (2) our new prudency determination; and (3) our proposed rule to designate critical habitat for the Louisiana black bear in accordance with section 4(b)(2) of the Act. For more information on previous Federal actions concerning the Louisiana black bear, refer to the proposed critical habitat rule published on December 2, 1993 (58 FR 63560).

**Critical Habitat**

Critical habitat is defined in section 3(5)(A) of the Act as:

(1) The specific areas within the geographical area occupied by a species, at the time it is listed in accordance with the Act, on which are found those physical or biological features

(a) Essential to the conservation of the species and

(b) Which may require special management considerations or protection; and

(2) Specific areas outside the geographical area occupied by a species at the time it is listed, upon a determination that such areas are essential for the conservation of the species.

Conservation, as defined under section 3 of the Act, means the use of all methods and procedures that are necessary to bring any endangered species or threatened species to the point at which the measures provided under the Act are no longer necessary.

Critical habitat receives protection under section 7 of the Act through the prohibition against Federal agencies carrying out, funding, or authorizing the destruction or adverse modification of critical habitat. Section 7 of the Act requires consultation on Federal actions that may affect critical habitat. The designation of critical habitat does not affect land ownership or establish a refuge, wilderness, reserve, preserve, or other conservation area. Such designation does not allow the government or public to access private lands. Such designation does not require implementation of restoration, recovery, or enhancement measures by the landowner. Where the landowner seeks or requests Federal agency funding or authorization that may affect a listed species or critical habitat, the consultation requirements of section 7 of the Act would apply, but even in the event of a destruction or adverse modification finding, the landowner's obligation is not to restore or recover the species, but to implement reasonable and prudent alternatives to avoid destruction or adverse modification of critical habitat.

For inclusion in a critical habitat designation, habitat within the geographical area occupied by the species at the time it was listed must contain features that are essential to the conservation of the species. Critical habitat designations identify, to the extent known using the best scientific data available, habitat areas that provide essential life cycle needs of the species (areas on which are found the primary constituent elements, as defined at 50 CFR 424.12(b)).

Occupied habitat that contains the features essential to the conservation of the species meets the definition of critical habitat only if those features may require special management considerations or protection.

Under the Act, we can designate unoccupied areas as critical habitat only when we determine that the best available scientific data demonstrate that the designation of that area is essential to the conservation needs of the species.

Section 4 of the Act requires that we designate critical habitat on the basis of the best scientific and commercial data available. Further, our Policy on Information Standards Under the Endangered Species Act (published in the **Federal Register** on July 1, 1994 (59 FR 34271)), the Information Quality Act (section 515 of the Treasury and General Government Appropriations Act for Fiscal Year 2001 (Pub. L. 106–554; H.R. 5658)), and our associated Information Quality Guidelines provide criteria,

establish procedures, and provide guidance to ensure that our decisions represent the best scientific data available. They require our biologists, to the extent consistent with the Act and with the use of the best scientific data available, to use primary and original sources of information as the basis for recommendations to designate critical habitat.

When we are determining which areas should be proposed as critical habitat, our primary source of information is generally the information developed during the listing process for the species. Additional information sources may include the recovery plan for the species, articles in peer-reviewed journals, conservation plans developed by States and counties, scientific status surveys and studies, biological assessments, or other unpublished materials and expert opinion or personal knowledge.

Habitat is often dynamic, and species may move from one area to another over time. Furthermore, we recognize that designation of critical habitat may not include all of the habitat areas that we may eventually determine, based on scientific data not now available to the Service, are necessary for the recovery of the species. For these reasons, a critical habitat designation does not signal that habitat outside the designated area is unimportant or may not be required for recovery of the species.

Areas that support populations, but are outside the critical habitat designation, will continue to be subject to conservation actions we implement under section 7(a)(1) of the Act and our other wildlife authorities. They are also subject to the regulatory protections afforded by the section 7(a)(2) jeopardy standard, as determined on the basis of the best available scientific information at the time of the agency action. Federally funded or permitted projects affecting listed species outside their designated critical habitat areas may result in jeopardy findings in some cases. Similarly, critical habitat designations made on the basis of the best available information at the time of designation will not control the direction and substance of future recovery plans, habitat conservation plans (HCPs), or other species conservation planning efforts if new information available to these planning efforts calls for a different outcome.

**Prudency Determination**

Section 4(a)(3) of the Act and its implementing regulations (50 CFR 424.12) require that, to the maximum extent prudent and determinable, we designate critical habitat at the time a species is listed as endangered or threatened. Our regulations at 50 CFR 424.12(a)(1) state that the designation of critical habitat is not prudent when one or both of the following situations exist: (1) The species is threatened by taking or other activity and the identification of critical habitat can be expected to increase the degree of threat to the species; or (2) the designation of critical habitat would not be beneficial to the species. In our January 7, 1992, final rule (57 FR 588) we determined that designating critical habitat may be prudent, but was not determinable at that time. We subsequently proposed critical habitat for the Louisiana black bear on December 2, 1993 (58 FR 63560); however, we did not explicitly state in our proposed rule that such designation was prudent.

The Louisiana black bear was listed as threatened under the Act on January 7, 1992 (57 FR 588), due to extensive habitat loss and modification, and the ongoing threats of continued habitat modification and human-related mortality. The majority of area lands within the Louisiana black bear's historic range are privately owned. Some of those lands remain forested; however, most have been cleared for other uses such as agriculture. Conservation of the Louisiana black bear will require habitat protection and restoration and, therefore, is dependent upon the voluntary protection and restoration of privately owned lands.

Significant progress has been made in habitat restoration for the Louisiana black bear. Habitat and management actions voluntarily taken by private landowners are one important component of those restoration activities. Over 55,000 ac (22,250 ha) of private lands have been enrolled in the Natural Resource Conservation Service's Wetland Reserve Program (WRP) which has benefited Louisiana black bear conservation since 1992. WRP provides an incentive for private landowners to convert non-productive farmland back to bottomland hardwoods, and many of these lands received higher rankings (when evaluated for enrollment) because of their benefit to Louisiana black bear conservation. Landowners enrolling in the WRP sign permanent easements protecting the restored land from future conversion or development. Designation of critical habitat on private lands may significantly reduce the likelihood that landowners will support and carry out conservation actions. Many landowners fear a decline in their property value due to real or perceived restrictions on land-use options where threatened or endangered species are found. Consequently, harboring endangered species is viewed by many landowners as a liability. This perception results in anti-conservation incentives, because maintaining habitats that harbor endangered species represents a risk to future economic opportunities. This response was observed during the 1993–1994 Louisiana black bear critical habitat proposal process, when the majority of comments received were in opposition to designation, and several landowners who had previously allowed black bear research activities on their lands subsequently denied access to researchers and agency personnel.

Thus, there is potential, as a result of critical habitat designation, for a decline in WRP enrollment within Louisiana black bear habitat and restricted access to private lands for research; however, we will continue to work with Federal and State agencies, private organizations, and individuals in carrying out conservation activities for the Louisiana black bear, including habitat restoration, population surveys, and population restoration. Furthermore, the identification of areas that are necessary to ensure the conservation of the species is beneficial and critical habitat designation may provide additional information to individuals, local and State governments, and other entities engaged in long-range planning, since areas with features essential to the conservation of the species are clearly delineated and, to the extent currently feasible, the physical and biological features of the habitat necessary to the survival of this subspecies are specifically identified. This process is valuable to land owners and managers in developing conservation management plans for identified areas, as well as any other occupied habitat or suitable habitat that may not have been included in the Service's designation of critical habitat.

The additional threat, identified in the final rule listing the subspecies (57 FR 588), of illegal killing of Louisiana black bears remains an ongoing threat; however, such takings are believed to be opportunistic or in response to black bear nuisance activities. In the case of large mammals, such as the Louisiana black bear, population locations are already generally known and we do not expect identification of critical habitat to increase the degree of this threat.

Accordingly, we determine that designation of critical habitat will not increase the degree of threat to the species and will be beneficial for the Louisiana black bear; therefore, we determine that designation of critical habitat is prudent for this subspecies. At

this time, we have sufficient information necessary to identify specific areas that meet the definition of critical habitat and as such, believe the critical habitat is also determinable. Therefore, we are proposing critical habitat for the Louisiana black bear.

**Methods**

As required by section 4(b) of the Act, we used the best scientific data available in determining areas occupied at the time of listing that contain features essential to the conservation of the Louisiana black bear, and areas unoccupied at the time of listing that are essential for the conservation of the Louisiana black bear, or both. We are not currently proposing any areas outside the geographical area presently occupied by the subspecies because the occupied areas being proposed are sufficient for the conservation of the subspecies.

We have also reviewed available information that pertains to the habitat requirements of this subspecies. After reviewing pertinent material, we consider it likely that the Louisiana subspecies is not significantly different from other black bears, because it is a habitat generalist. Material reviewed for the development of this critical habitat proposal included information from the January 7, 1992 (57 FR 588), final rule listing the Louisiana black bear as threatened; the December 2, 1993 (58 FR 63560) proposed rule to designate critical habitat; information and survey observations published in peer-reviewed literature, academic theses, and agency reports; location data and survey information provided in agency reports and maps; habitat analyses and other information provided in the 1995 Louisiana Black Bear Recovery Plan and the complementary BBCC Black Bear Restoration Plan (1997); and material submitted during consultations under section 7 of the Act.

The following geospatial and tabular data sets were used in preparing this proposed critical habitat: Occurrence data for the Louisiana black bear (Louisiana Department of Wildlife and Fisheries, the U.S. Fish and Wildlife Service, Louisiana State University, and the University of Tennessee); 1998, 2004, and 2005 that is 1:24,000 digital raster and digital orthophoto quarter-quadrangles (DOQQ); and 1:24,000 scale digital raster graphics (DRG) of the U.S. Geological Survey (USGS) topographic quadrangles. Habitat data was determined from the 2001 grid (raster) National Land Cover Dataset (NLCD) developed by The Multi-Resolution Land Characteristics (MRLC) Consortium. The MRLC is a group of Federal agencies who develop datasets used to track regional and global changes in land cover and land use, including such essential categories as forest and grassland cover. The MRLC consortium is specifically designed to meet the current needs of Federal agencies for nationally consistent satellite remote sensing and land-cover data. We transformed the digital raster data to a vector format in order to obtain the most accurate area estimates of critical habitat when overlaid onto the critical habitat boundaries of lands containing features essential to the conservation of the subspecies. Land ownership was determined from geospatial data sets developed by the Service's Southeast Region Realty Division and the Louisiana State Lands Office.

We obtained additional information through personal communications with biologists, scientists, and land managers familiar with the Louisiana black bear and its habitat, including individuals affiliated with the Louisiana Department of Wildlife and Fisheries (LDWF), the Service, the BBCC, Louisiana State University, and the University of Tennessee. Specific information from these sources included estimates of historic and current distribution, abundance, and home range sizes, as well as data on resources and habitat requirements.

To delineate areas currently used by breeding populations, we acquired all available raw telemetry data (*i.e.*, telemetry points) from those above-referenced sources (recognizing the geographic limits of existing data in that they were collected from areas within known Louisiana black bear populations). Those telemetry points were buffered with average adult female home range sizes (as determined from published research) and were coalesced into polygons for each Louisiana black bear population. Those polygons were further refined based on habitat presence (as determined from DOQQs), contiguity of suitable habitat, proximity to non-contiguous suitable habitat, direct evidence of bear use, habitat patch size, and significant landscape features. We determined proposed critical habitat to be all areas within those polygons, except for those tracts that do not contain the physical and biological features essential to the conservation of the subspecies. We used telemetry data (where available), and DOQQs and DRGs to delineate habitat corridors. Areas proposed as critical habitat include areas that contain the physical and biological features essential to the conservation of the subspecies and either: (1) Currently support a breeding population of Louisiana black bears; or (2) function as corridors to maintain movement between core populations.

**Primary Constituent Elements**

In accordance with section 3(5)(A)(i) of the Act and the regulations at 50 CFR 424.12, in determining which areas occupied at the time of listing to propose as critical habitat, we consider the physical and biological features (PBFs) that are essential to the conservation of the species to be the specific primary constituent elements (PCEs) laid out in the appropriate quantity and spatial arrangement for the conservation of the species. These include, but are not limited to:

(1) Space for individual and population growth and for normal behavior;

(2) Food, water, air, light, minerals, or other nutritional or physiological requirements;

(3) Cover or shelter;

(4) Sites for breeding, reproduction, or rearing (or development) of offspring; and

(5) Habitats that are protected from disturbance or are representative of the historic, geographical, and ecological distributions of a species.

We derive the specific primary constituent elements (PCEs) for the Louisiana black bear from its biological needs.

*Space for Individual and Population Growth and Normal Behavior*

Louisiana black bear populations are currently found in the BLH forest communities and associated habitat of the Lower Mississippi River Alluvial Valley. Prime black bear habitat is characterized by relatively inaccessible terrain, thick understory vegetation, and abundant food sources in the forms of shrubs or tree-borne soft or hard mast (Pelton 1982, p. 507). BLH forest community types in the range of the Louisiana black bear, expressed in terms of dominance-codominance, include *Taxodium distichum* (bald cypress); *T. distichum-Nyssa aquatica* (bald cypress-water tupelo); *Betula nigra-Platanus occidentalis* (river birch-American sycamore); *Populus deltoides* (cottonwood); *Celtis laevigata-Ulmus americana-Fraxinus pennsylvanica* (sugarberry-American elm-green ash); *Quercus nuttallii-U. americana-F. pennsylvanica* (Nuttall oak-American elm-green ash); *Q.lyrata-Carya aquatica* (overcup oak-water hickory) *Liquidambar styraciflua-Q. nigra* (sweetgum-water oak); and *Q. michauxii-Q. falcata* (swamp chestnut oak-cherrybark oak) (BBCC 1997, p. 15).

Benson (2005, p. 56, Table 4.1) described habitat types in terms of species, flooding regime, and age as: (1) Upland forests—BLH forests in relatively high elevation sites not subject to frequent flooding; and (2) lowland forest—BLH forests in relatively low elevations subject to seasonal or annual flooding. Louisiana black bear habitat in the Lower Atchafalaya population differs from the Tensas and Upper Atchafalaya areas in that it includes, in addition to forested wetlands (*e.g.*, deciduous forests, cypress forests, deciduous and bald cypress forests, shrub-scrub marshes), open marshes, deciduous forest spoil banks, and upland hardwood forest (Nyland 1995, p. 58). The interspersion of these communities may be important in meeting the seasonal needs of the Lower Atchafalaya Louisiana black bear population (Nyland 1995, p. 58). The coastal (or wetland) habitats may provide escape cover, food sources, and secure travel corridors between other habitat types (Jones and Pelton 2003, p. 193).

The minimum size of an area necessary for black bears may differ depending on density, habitat quality, conservation goals, and assumptions regarding minimum viable populations (Rudis and Tansey 1995, p. 172). For example, Rudis and Tansey (1995, p. 172), citing personal communications, reported estimates of minimal areas needed to support a black bear population ranging from 79,000 ac (32,000 ha) in forested wetlands to 80,000 ac (197,700 ha) in upland forests. Cox *et al.* (1994, p. 50) estimated that a population of 200 or more bears could require a habitat base of approximately 490,000 to 980,000 ac (198,000 to 397,000 ha). Maintaining and enhancing key habitat patches within breeding habitat is a critical conservation strategy for black bears (Hellgren and Vaughan 1994, p. 276). Areas should be large enough to maintain female survival rates above the minimum rate necessary to sustain a population (Hellgren and Vaughan 1994, p. 280). Weaver (1999, pp. 105–106) documented that bear home ranges and movements were centered in forested habitat and noted that actions to conserve, enhance, and restore that habitat would promote population recovery, although no recommendations on minimum requirements were provided. Hellgren and Vaughn (1994, p. 283) concluded that large, contiguous forests are a critical conservation need for black bears.

One approach to assess Louisiana black bear habitat needs is to look at existing densities; however, density estimates should be used with caution as they can be influenced by population estimation methodology and study area delineation. No single area-density relationship has been developed for Louisiana black bears; however, density estimates have been developed for Louisiana black bears in two locations. Bear density for the Tensas River NWR subgroup was estimated to be 1 bear per 686 ac (0.36 per km$^2$). This is low compared to other southeastern populations and to the adjacent Deltic subgroup with a density of 1 bear per 173 ac (1.43 per km$^2$) (Boersen *et al.* 2003, p. 204). The unusually high densities observed on the Deltic tracts may be the result of the small size of the habitat fragments and accessibility to adjacent desirable agricultural crops (Boersen *et al.* 2003, p. 204).

Another approach to assess Louisiana black bear habitat requirements is to examine bear movements and home ranges. The home ranges of Louisiana black bears appear to be closely linked to forest cover (Marchinton 1995, p. 48). Female range size may be partly determined by habitat quality (Amstrup and Beecham 1976, p. 345), while male home range size may be determined by efficient monitoring of a maximum number of females (Rogers 1987, p. 19). Male black bears commonly disperse, and adult male bears can be wide-ranging with home ranges generally three to eight times larger than adult females (Pelton 1982, p. 507) and that may encompass several female home ranges (Rogers 1987, p. 19). Dispersal by female black bears is uncommon and typically is a short distance (Rogers 1987, p. 43). Females without cubs generally had larger home ranges than females with newborn cubs (Benson 2005, p. 46), although this difference was observed to vary seasonally, with movements more restricted in the spring (Weaver 1999, p. 99). Following separation of the mother and yearling offspring, young female black bears commonly establish a home range partially within or adjacent to their mother's home range (Rogers 1987, p. 39). Young males, however, generally disperse from their maternal home range. Limited information suggests that subadult males may disperse up to 124 mi (200 km) (BBCC 1997, p. 22).

Home range estimates vary for the Louisiana black bear. Mean median MCP home range estimates for the Tensas River NWR population were 35,736 ac (14,462 ha) and 5,550 ac (2,426 ha) for males and females, respectively (Weaver 1999, p. 70). Male home ranges (MCP) in the Upper Atchafalaya population may be as high as 80,000 ac (32,375 ha), while female home ranges are approximately 8,000 ac (3,237 ha) (Wagner 1995, p. 12). Lower Atchafalaya population home ranges (MCP) were estimated to be 10,477 ac (4,200 ha) for males, and 3,781 ac (1,530 ha) for females (Wagner 1995, p. 12). The smaller home ranges of Lower Atchafalaya bears when compared to Upper Atchafalaya bears may be due to superior habitat quality in the coastal area (Wagner 1995, p. 25). Louisiana black bears located on the Deltic lands in the Tensas River population have very small home ranges compared to other black bear populations with an estimated average home range (MCP) for males of 1,729 ac (700 ha) and for females 1,038 ac (420 ha) (Beausoleil 1999, p. 57). The smaller home ranges for this population are believed to be a result of the bears' reliance on the surrounding agricultural crops for forage (Benson 2005, p. 95) and the overall higher quality of the forested habitat (Weaver 1999, pp. 90–91). Based on observations of the Deltic populations, Benson (2005, p. 95) suggested that it may be possible for a relatively large number of bears to require less space and persist in limited forest habitat if food is sufficiently abundant and diverse.

Habitat loss, besides reducing the overall area, can result in fragmentation or isolation of habitat, as is evident for the Louisiana black bear (Clark 1999, p. 107). Habitat fragmentation can restrict bear movements both within and between populations (BBCC 1997, p. 23). This can result in increased mortality as bears are forced to forage on less protected sites, travel farther to forage, or cross barriers such as roads (Pelton 1982, p. 507; Hellgren and Maehr 1992, pp. 154, 155, 156). Open areas, roads, large waterways, development, and large expanses of agricultural land may affect habitat contiguity. Such features tend to impede the movement of bears (Clark 1999, p. 107). Habitat fragmentation also limits the potential for the present Louisiana black bear population to expand its current breeding range (USFWS 1995, p. 8). Habitat fragmentation can create barriers to immigration and emigration that can affect population demographics and genetic integrity (Clark *et al.* 2006, p. 12). Bear populations in a relatively large habitat patch are not ensured of long-term survival without recolonization by bears from adjacent patches (Clark 1999, p. 111). The long term protection of habitat and interconnecting corridors or habitat linkages between viable breeding populations is one of the recovery

criteria for the Louisiana black bear (USFWS 1995, p. 14).

Habitat linkages or corridors providing vegetative cover can facilitate the movement of bears through agricultural (or other open) lands, particularly when bears reside in fragmented tracts of forest, as is the case for the Louisiana black bear (Weaver *et al.* 1990b, p. 347). Based on telemetry locations and visual observations, Marchinton (1995, p. 53) determined that wooded drainages were important travel corridors for movement between forested tracts. He noted that those drainages may facilitate movements across agricultural lands and may be important for dispersal outside the study area. Likewise, Weaver (1999, p. 67) found significant use of habitat linkages between larger forested tracts, including forested edges associated with bayous, their tributaries, various dry ditch bottoms, and brushy ditch and canal banks in various agricultural tracts. Bears were also observed to frequent certain areas of intact forest such as banks of rivers, sloughs, ditches, and bayous, and Weaver (1999, p. 82) suggested that the term ''habitat linkages'' may be more appropriate than travel corridors when referring to the remnant habitat features that link disjunct wooded tracts.

Beausoleil (1999, p. 62) observed that female Louisiana black bears would not move between woodlots unless they were connected by a forested corridor or were closer than 1,640 feet (ft) (0.5 km) apart. Anderson (1997, p.74 via T. Edwards, USFWS pers. communication) found that female bears would not travel between expansive agricultural fields that separated forested tracts by 4,541 ft (1.3 km) and observed that bears traveled along tree-lined ditches that were as narrow as 16 ft (5 m) in width (Anderson 1997, p. 74). Similarly, Van Why (2003, pp. 30, 46) observed Louisiana black bears using narrow strips of vegetation (less than 33 ft (10 m)) to travel through inhospitable habitats such as open fields. Weaver *et al.* (1990b, p. 347) recommended a 197-ft (60-m) buffer zone along waterways as a travel corridor or habitat linkage. Bears will travel through open habitat (Weaver 1999, p. 81), but they may travel farther from the forested edge when in a wooded corridor versus in an open field (Anderson 1997, p. 42).

Habitat linkages, as described in Louisiana black bear population studies, are generally described as narrow and linear in shape, most likely resulting from the fact that ditches and bayous are the only remaining features connecting habitat fragments within a population. Non-linear habitat patches located between existing populations may also provide areas for bear movement. Such linkages increase the amount of forested habitat (Beausoleil *et al.* 2005, p. 408) and may serve not only as pathways for concealed travel, but may also provide other functions such as escape cover, bedding and denning sites, routes for juvenile dispersal, and avenues for genetic exchange (Weaver 1999, pp. 82–83). Habitat linkages ranging from 2.5 ac to 12 ac (1 ha to 5 ha) can provide cover for black bears (Pelton and Van Manen 1997, p. 33). Smaller areas (*i.e.*, 2.5 ac (1 ha)) may provide suitable movement paths for shorter, within-population movements but may not be sufficient for establishing larger movement paths between populations. Beausoleil *et al.* (2005, pp. 409–410) recommended the establishment of habitat corridors to reduce the isolation of forested habitats for black bears and suggested that corridor width should vary with length and increase with distance. Similarly, Cox *et al.* (1994, p. 35) suggested that black bears likely require broader habitat areas rather than thin corridors when connecting distant populations.

While there is scientific discussion regarding the relative importance of wildlife corridors in general, they have been shown to be important for black bears (Cox *et al.* 1994, p. 34). Furthermore, in modeling spatial landscape structure and species dispersal, King and With (2002, p. 33) found that habitat clumping may help mitigate the negative effect that habitat loss has on dispersal success. Habitat linkages (or corridors) are needed to facilitate bear movement between habitat patches within and between black bear populations (BBCC 1997, p. 54). Telemetry data on Louisiana black bear movements in the Tensas River Basin demonstrate that habitat linkages should be considered in management plans intended to ensure Louisiana black bear population viability in fragmented habitats and to provide for the large home ranges (particularly of males) needed for unimpeded breeding and dispersal (Weaver 1999, p. 106).

*Food, Water, Air, Light, Minerals, or Other Nutritional or Physiological Requirements*

The Louisiana black bear's diet is dominated by plant material throughout the year (Pelton 1982, p. 508; Anderson 1997, p. 77; Benson 2005, p. 20). A portion of the diet is made up of animal matter, primarily beetles and other insects (which are consumed year-round (Anderson 1997, p. 79)), and occasionally carrion (Pelton 1982, pp. 508–509; Benson 2005, p. 27). Diets vary seasonally in relation to food availability as does habitat use (Nyland 1995, p. 53). After den emergence in the spring, bears utilize remaining fat reserves (Pelton 1982, p. 509). As this is generally a time of lower food abundance, bears may lose weight but will soon take advantage of any available protein-rich foods (Pelton 1982, p. 509). On the Deltic tracts, such items include grasses, sedges, oats, wheat, and beetles (Anderson 1997, p. 49; Benson 2005, p. 26). During the summer, food abundance and diversity increases, and soft mast, found primarily in forest openings, becomes a major food source. Soft mast may include such items as blackberry, grape, mulberry, sassafras, and paw paw (Weaver *et al.* 1990b, p. 344; Anderson 1997, p. 78; BBCC 1997, p. 18; Benson 2005, p. 26). Recently timbered areas can provide foraging opportunities for bears as they allow light penetration through canopy openings and provide rotting wood that harbors beetles and grubs (Weaver *et al.* 1990b, p. 344). Louisiana black bears were also observed using early successional areas (*e.g.*, planted with trees or regenerating naturally) planted with trees (0 to 12 years) or by an open canopy and dense understory of shrubs, vines, and saplings (Benson 2005, p. 56, Table 4.1). Such areas provide food and cover similar to natural openings in forests.

Food availability during the late summer and fall is critical as bears need to increase their fat stores in preparation for winter dormancy and denning (Pelton 1982, p. 509; BBCC 1997, p. 18). Acorns and other hard mast are important food items during this period (Pelton 1986, p. 51; Benson 2005, p. 27). Extensive foraging may occur and bears may travel great distances in search of food (Pelton 1982, p. 509). It is not uncommon for a bear to gain one to two pounds of fat daily (Pelton 1986, p. 51). Bears will forage on agricultural crops, which may dominate the diet depending on availability (Nyland 1995, p. 59; Anderson 1997, p. 78; Benson 2005, p. 20).

An important factor affecting black bear populations appears to be variation in food supply and its effect on physiological status and reproduction (Rogers 1976, pp. 436–437). Black bear cub survival and development are closely associated with the physical condition of the mother (Rogers 1976, p. 434). Cub mortality rates and female infertility are typically greater in single or successive years of poor mast production or failure (Rogers 1987, p. 53; Eiler *et al.* 1989, p. 357; Elowe and Dodge 1989, p. 964). Nutrition may affect the age of female reproductive maturity and subsequent fecundity

(Pelton 1982, p. 504). Reproduction may occur as early as 2 years of age for black bears in high quality habitat; in poor or marginal habitat, reproduction may not occur until 7 years of age (Rogers 1987, pp. 51–52, Table 8). Litter size may be affected by food availability prior to denning (Rogers 1987, p. 53, Table 10). During periods of food shortages, bears range farther in search of food. This increased movement substantially increases their chances for human encounters and human-related mortality (Rogers 1976, p. 436; Pelton 1982, p. 509). These high mortality rates are suspected to be greater for yearling and subadult black bear males dispersing from the family unit, and are probably the result of starvation, accidents (*e.g.*, vehicular collisions), and poaching.

*Cover or Shelter*

Black bears undergo a period of winter dormancy that allows them to circumvent food shortages and severe weather (Pelton 1982, p. 508). Louisiana black bears generally enter dens in early December and emerge in mid-April (Weaver 1999, p. 116, Table 4.1). They may remain somewhat active during this period and have been observed changing den sites and foraging, although their home range sizes are reduced (Weaver 1999, p. 115; Hightower *et al.* 2002, p. 16). Louisiana black bears use trees, brush piles, and ground nests for denning (Weaver 1999, p. 118; Hightower *et al.* 2002, p. 14). An individual bear may use one or more different den types, often within the same season (Weaver 1999, p. 118). Weaver (1999, p. 120) noted that most den trees were bald cypress, but also observed bear use of other species such as overcup oak and American sycamore. Den tree cavities appeared to result from broken tops or limbs and averaged approximately 49 ft (15 m) in height (Weaver 1999, p. 121). Den trees primarily occur along permanently flooded sloughs, seasonally flooded flats, lakes, bayous, and rivers (Weaver 1999, p. 130). Ground nests were located in wooded habitat and constructed from stacked palmetto and vegetation arranged in a wreath-like manner. Many of the wreath-like nests included excavated depressions, but those created from stacked palmetto did not (Weaver 1999, pp. 121–122). Nests were observed in forested habitat and constructed against a backdrop such as a felled log, a tree top, or the base of a tree (Weaver 1999, p. 122). In the Tensas population, thirteen of 17 nests were located in forested stands that were at least partially timbered within the last 5 years (Weaver 1999, p. 122). Brush pile dens were observed in residual tree tops that were felled during recent timber harvests (Weaver 1999, pp. 122; Hightower *et al.* 2002, p. 14). Trees large enough and sufficiently mature to contain useable cavities are almost always found in places inaccessible to logging (Marchinton 1995, p. 55), or are left standing due to their low economic value.

The importance of high-quality cover for bedding, denning, and escape cover increases as forests become smaller and more fragmented, and as human encroachment and disturbance in bear habitat increases (Pelton 1986, p. 52). The thick understory found in some BLH forests and adjacent areas provides high-quality escape cover, which is considered especially important where fragmented habitats put bear populations in closer proximity to humans. Bears frequently use forested areas and scrub-shrub habitat as escape cover and as resting sites or ''daybeds'' (Weaver *et al.* 1990b, p. 347). Daybeds are generally shallow, unlined depressions excavated in soft ground or leaf litter (BBCC 2005, p. 13). Secure areas for bedding, denning, and escape can be found in cover that limits visibility, slows foot travel, and creates noise when traversed (Weaver *et al.* 1990b, p. 347).

*Sites for Breeding, Reproduction, or Rearing (or Development) of Offspring*

The average age for first female reproduction varies widely across black bear studies; however, most describe breeding occurring between 3 years and 5 years of age (Weaver 1990, p. 5). Breeding occurs in summer and the gestation period for black bears is 7 to 8 months (Weaver 1990, p. 5). Delayed implantation occurs in the black bear; blastocysts float free in the uterus and do not implant until late November or early December (Pelton 1982, p. 505). Because of this, pregnant females are not subject to the nutritional drain of a developing fetus while they forage to increase fat reserves for winter torpor (Weaver 1990, p. 5). Additional information on female habitat requirements is described in the ''Space for Individual and Population Growth and Normal Behavior'' discussion above. Females give birth during the denning season. The normal litter size is two, although litter sizes of one to four cubs (and rarely five) do occur. Cubs are altricial (helpless) at birth (Weaver 1990, p. 5) and generally exit the den site with the female in April or May. Young bears stay with the female through summer and fall, and den with her the next winter. The young disperse in their second spring or summer, prior to the female's period of estrus (Pelton 1982, p. 505). Estrus starts when the female becomes physiologically capable of reproducing again. However, not all females produce cubs every other winter; reproduction is related to physiological condition (*i.e.*, female bears that do not reach an optimal weight or fat level may not reproduce in a given year) (Rogers 1987, p. 51).

Females give birth while in their winter dens. Den site characteristics were described in more detail in the ''Cover or Shelter'' discussion above. Secure den sites for reproduction are particularly important as the young would not survive without their mother should she abandon her den because of disturbance. Benson (2005, p. 84) found that female reproductive status affected den type use, as females with cubs used trees for dens more frequently than ground dens. However, Hightower *et al.* (2002, p. 14) did not detect differences in den type use by females based on their reproductive status.

Tree dens may be an important component for female reproductive success in areas subject to flooding (Hellgren and Vaughan 1989a, p. 352). Den trees located in cypress swamps would appear to provide an increase in security (*e.g.*, decrease in disturbance) compared to ground dens. The availability of den trees, however, does not appear to be a limiting factor for reproductive success (Weaver and Pelton 1994, p. 431); den trees may not be necessary for Louisiana black bears if flooding and disturbance are minimized (Hightower *et al.* 2002, p. 15).

To afford additional protection to denning bears, when we listed the Louisiana black bear, we extended legal protection to candidate and actual den trees by promulgating a special rule at 50 CFR 17.40(i) under section 4(d) of the Act (57 FR 588). As the terms imply, ''actual den tree'' refers to any tree used by a denning bear during the winter and early spring seasons. Candidate den trees are defined in the final rule as *Taxodium distichum* (bald cypress) and *Nyssa sp.* (tupelo gum) in occupied Louisiana black bear habitat having a diameter at breast height of 36 inches or greater, with visible cavities, and occurring in or along rivers, lakes, streams, bayous, sloughs, or other water bodies. Results of recent research involving Louisiana black bears indicate that they will use virtually any species of tree for a den site (including overcup oak, American elm, sweetgum, water hickory, and sycamore), contingent upon it meeting the minimum diameter and cavity presence criteria described above (Hightower *et al.* 2002, p. 16).

*Habitats That Are Protected From Disturbance*

Remoteness is an important spatial feature of black bear habitat. In the southeastern United States, remoteness is relative to forest tract size and the presence of roads. Examples of remoteness important for black bear habitat include: A tract of timberland 0.5 mi (0.8 km) from well-maintained roads and development (Rudis and Birdsey 1986, p. 5), a forested tract of more than 2,500 ac (1,000 ha) (Rudis and Tansey 1988, p. 172), or a tract with 0.8 mi or less of road per mile$^2$ (0.5 km/km$^2$) of forest (Pelton 1986, p. 52). Remote timberlands, by this definition, are relatively rare within the historical range of black bears and are located primarily in Louisiana (Rudis and Birdsey 1986, p. 5). Increasing road density increases the likelihood of human disturbances, which can limit habitat suitability and use for black bears.

In some cases, where remoteness does not exist, bears are adaptable and through changes in behavior can survive and thrive in proximity to humans if afforded areas of retreat that ensure little chance of close contact or visual encounters. For example, bears may shift home range locations in response to increases in road densities (Brody and Pelton 1989, p. 10). However, in areas of fragmented habitat, behavioral adjustments may not be sufficient to offset the negative effects of barriers such as roads. Approximately 38 percent of known Louisiana black bear mortalities are the result of road kills (Pace *et al.* 2000, p. 368).

*Primary Constituent Elements (PCEs) for the Louisiana Black Bear*

Within the geographical area occupied by Louisiana black bear at the time of listing, we must identify the PCEs laid out in the appropriate quantity and spatial arrangement essential to the conservation of the subspecies (*i.e.*, essential physical and biological features) that may require special management considerations or protections.

Based on the above needs and our current knowledge of the life history, biology, and ecology of the subspecies, we have determined that the Louisiana black bear's PCEs are:

(1) Breeding habitat (*i.e.*, within or contiguous to the home range of females in a core breeding population) consisting of hardwood forest areas having a diversity of age class and species and containing sources of hard mast (acorns and nuts) produced by such species as mature oaks, hickories, and pecan, and that may include one or more of the following:

(a) Areas containing soft mast provided by a diversity of plant species, including, but not limited to, blackberry, grape, mulberry, sassafras, paw paw, etc., occurring primarily in forest openings, on spoil banks, and in areas adjacent to forested habitat;

(b) Areas within forested habitat providing protein sources consisting of beetles and other colonial insects found in rotting and decaying wood found on the forest floor;

(c) Grasses and sedges found in forest openings, on spoil banks with open canopies, and in vegetated areas adjacent to forested habitats; and

(d) Secure areas for reproduction, winter dormancy, day bedding, and escape. These include areas with den trees (*e.g.*, bald cypress, overcup oak, American sycamore, etc.); areas with a thick understory, shrub-scrub habitat, openings along spoil banks, vegetated areas adjacent to forests, or any vegetation that provides cover, limits visibility, slows foot travel, or creates noise when traversed; early successional forests (0 to 12 years) with an open canopy and dense understory of shrubs, vines, and saplings; or areas with vegetation such as palmetto, greenbriars, blackberry, dewberry, and downed trees.

(2) Corridors consisting of:

(a) Habitat patches 12 acres (5 hectares) or greater in size; or

(b) Forested areas greater than 150 feet (46 meters) along waterways and sloughs and having a diversity of plant species and age-classes of sufficient area, quality, and configuration, as described in PCE 1 above, to provide dispersal habitat between breeding populations to maintain genetic variability and promote stable or increasing populations, and to provide habitat supporting safe movement, foraging, and denning.

As described in the Primary Constituent Elements section, breeding habitat (PCE–1) must be interspersed and connected by suitable corridors (PCE–2) to allow for movement between core populations.

We have designed this proposed designation for the conservation of physical and biological features necessary to support the life history functions that were the basis for our proposal and the areas containing those features. Because not all life history functions require all the PCEs, not all proposed critical habitat units will contain all the PCEs.

We propose units for designation based on sufficient PCEs being present to support at least one of the subspecies' life history functions. Some units contain all of these and support multiple life processes, those necessary to support the subspecies' particular use of that habitat, while some units contain some of the PCEs.

**Special Management Considerations or Protections**

When designating critical habitat, we assess whether the occupied areas contain features that are essential to the conservation of the species and that may require special management considerations or protections. Threats to the physical and biological features essential to the conservation of the Louisiana black bear include the direct and indirect impacts of land clearing or development resulting in habitat fragmentation and land use conversion, primarily to agriculture and development. Specific details can be found in the final listing rule (January 7, 1992; 57 FR 588). Due to one or more of the threats described above, and addressed in more detail in the individual unit descriptions below, we find that all of the occupied areas we are proposing for designation as critical habitat contain the PBFs that may require special management considerations or protections to ensure the conservation of the Louisiana black bear.

**Criteria Used To Identify Critical Habitat**

Our conservation strategy is based on a review of the biological needs of this subspecies as described in the literature, and the recovery strategy outlined in the Louisiana black bear recovery plan. In proposing critical habitat, our two-fold strategy is to: (1) Reduce the potential for extinction by providing the habitat in areas of sufficient composition and size to maintain the viability of existing reproducing populations (as determined by occupied habitat); and (2) ensure the demographic vigor and genetic variability of existing populations by providing habitat of sufficient composition and location to provide areas of connectivity between adjoining populations.

We include land within the proposed critical habitat unit boundaries contingent upon that land satisfying one of the following criteria: (1) It was occupied at the time of listing, serves as breeding habitat, and contains the physical and biological features essential to the conservation of the Louisiana black bear, or (2) it was occupied at the time of listing, serves as an immigration or emigration corridor between the core breeding populations, and provides habitat that contains the

physical and biological features essential to the conservation of the Louisiana black bear.

At the time of listing (January 7, 1992), there were limited data documenting Louisiana black bear distribution and reproduction. Range maps were generalized and seem to have been heavily based upon information such as landscape features (*e.g.*, extent of forested habitat) and anecdotal data (*e.g.*, unconfirmed sightings), in addition to the best available scientific data. Based on the considerable amount of data collected since 1992, the most accurate occupied habitat map at the time of listing appears to be the one published in the Louisiana Black Bear Recovery Plan (USFWS 1995, p. 4). That map and several other distribution maps developed around the time of listing indicate that bears may not have occurred in one area between the Tensas and Upper Atchafalaya River populations at that time. Those maps, however, vary considerably depending on whether or not they included all sightings outside of breeding populations, and they do not always indicate the information used (Pelton 1989, p. 8, Figure 6; Weaver *et al.* 1990a, p. 24, Figure 1; Hammond 1988, p. 75, Figure 32). Habitat corridors still existed between breeding populations around the time of listing, and those populations were probably not totally disjunct (Pelton 1989, pp. 16–18). Similarly, Weaver (1999, pp. 87–88) noted that despite habitat fragmentation and degradation, the observed dispersal capability of Louisiana black bears, coupled with the proximity to other breeding populations in Arkansas and the Upper Atchafalaya, indicated that bears in the Tensas population were not completely isolated. Hammond (1989, pp. 17–19, 42) had evidence, based on sightings and damage reports submitted to the LDWF, as well as reports he verified, of bear occurrence within this area. Therefore, while there is no evidence to indicate that this area contained a breeding population at the time of listing, we believe that this area was occupied and utilized by some small numbers of bears.

Since the time of listing in 1992, the Louisiana black bear has been studied extensively by numerous researchers with various affiliations, and substantial amounts of data now exist for all populations of the Louisiana black bear. Those studies and resultant data have generally resulted in publications in peer-reviewed scientific journals. Though important in many aspects of the critical habitat designation process, the summarized data format of those publications provides insufficient detail for the accurate delineation of currently occupied habitat. Therefore, we gathered all currently available raw telemetry data associated with those publications (Anderson 1997; Beausoleil 1999; Marchinton 1995; Wagner 1995; and Weaver 1999) from the authors and affiliated research groups including the Louisiana Department of Wildlife and Fisheries, the U.S. Fish and Wildlife Service, Louisiana State University, and the University of Tennessee.

Adult female home range sizes for the Upper and Lower Atchafalaya River populations (8,080 ac (3,270 ha) and 3,781 ac (1,530 ha), respectively) were taken from Wagner (1995, p. 12); adult female home range sizes for the Tensas River NWR subgroup (5,995 ac (2,426 ha)) were taken from Weaver (1999, p. 70). Adult female home range size for the Deltic subgroup (1,766 ac (715 ha)) was based on an average of the estimates provided by Anderson (1997, p. 37), Beausoleil (1999, pp. 57, 60), Marchinton (1995, p. 31), and Weaver (1999, p. 70). Adult females that were relocated as part of the Louisiana black bear repatriation project are generally more nomadic and have larger and less clearly defined home ranges than anticipated, likely as a result of their reaction to displacement in an unfamiliar setting. Home range size for those females (7,038 ac (2,848 ha)) was, therefore, estimated by averaging home range sizes for the Upper Atchafalaya population (which is the geographically closest population to the repatriated bears) and the Tensas River NWR subgroup (which has served as a donor population for most of the repatriated bears). Raw telemetry data (*i.e.*, telemetry points) were buffered with those adult female home range sizes and were coalesced into polygons for each Louisiana black bear population. Those polygons formed the approximate boundary of occupied habitat, which was further refined based on habitat suitability, contiguity of suitable habitat, proximity to non-contiguous suitable habitat, direct evidence of bear use, habitat patch size, and significant landscape features.

We have defined breeding habitat as bottomland and upland hardwood forests and adjacent vegetated habitats having a diversity of plant species and age-classes with evidence of use by at least five adult female bears, having home ranges that partially or completely overlap (core areas). An area that is completely or partially within one or more of those home ranges, but outside of the core area, as defined above, would be considered breeding habitat if it: (1) Has demonstrated use (via radio telemetry) of at least one female bear and is larger than 5 ac (2 ha) in size; or (2) is larger than 100 ac (40 ha) in size, regardless of telemetry confirmation of female presence, and is not separated from the breeding habitat core area by a landscape feature that may negatively influence natural bear movements (*e.g.*, a State or Federal road, or a large waterway). Evaluation of existing telemetry data suggests that forest use by fewer than 5 females is generally indicative of temporary residence as a result of dispersal (noted most often within, and surrounding, the repatriation complex).

Due to current data limitations and habitat variations, it is not possible to reliably determine the minimum habitat requirements for a viable Louisiana black bear population or subgroup. Data concerning Louisiana black bear population size, survival and mortality rates, and overall population viability are dated for all but the Tensas population. In 1997, the Statewide Louisiana black bear population was estimated to range from 200 to 400 bears (Pelton and Van Manen 1997, p. 38). No reliable overall Louisiana black bear population estimate currently exists; however, a comprehensive population dynamics study involving many existing Louisiana black bear populations is currently being conducted by the University of Tennessee and the LDWF, but is not complete at this time. According to the LDWF, there is circumstantial evidence that the Louisiana black bear population is growing (LDWF 2007, p. 22). Currently, the Tensas River NWR subgroup of the Tensas population is the only population and/or subgroup of Louisiana black bears that: (1) Has scientifically reliable data; (2) has been determined to be viable (*i.e.*, has a 95 percent or better chance of persistence over 100 years (FWS 1995, p. 14; BBCC 1997, pp. 33–34)); and (3) sustains itself almost entirely on habitat containing PBFs (*i.e.*, bottomland and upland hardwood forest habitat). Therefore, the Tensas River NWR subgroup data were used to assess habitat requirements for existing populations.

The Tensas River NWR subgroup (estimated at 115 Louisiana black bears) inhabits 142,000 ac (57,465 ha) of habitat (containing the PCEs). We assumed that the Tensas River NWR subgroup, which population viability analyses indicate to be stable, currently exists at minimum population and habitat sizes necessary to maintain long-term viability. Population viability analyses for the Upper and Lower Atchafalaya populations (using best available data) indicate that those

populations may not be stable. Consistent with our assumption and those analyses, we propose to designate all known breeding habitat (that was also occupied at time of listing) containing the primary constituent elements for all populations and subgroups. Including all such areas would incorporate a habitat quantity that is at least equivalent to that currently available to the Tensas River NWR subgroup and is estimated to provide sufficient habitat necessary to maintain long-term viability for three of the other populations. The Deltic subgroup is an exception because of its unusually high population density due to the availability and use of surrounding agricultural lands. All habitats occupied by the Deltic subgroup currently and at the time of listing are included in the proposed critical habitat boundary, although it is a smaller area than that included for all other populations.

One of the criteria necessary to meet the recovery goal of delisting the Louisiana black bear, as identified in the Service's recovery plan for this species, is the presence of ''immigration and emigration corridors between the two viable populations used as justification for delisting'' (USFWS 1995, p. 14). Including such areas will reduce forested corridor fragmentation within the current geographic distribution of the Louisiana black bear. Therefore, we propose to designate as critical habitat areas between the core breeding population centers. Those areas contain the essential physical and biological features and will maintain existing forested immigration and emigration corridors between existing breeding habitat. Based on available data, we believe that all of those corridors were occupied at the time of listing.

The length of the corridors was primarily defined by the distance between existing core breeding populations. Corridor boundary width varies and was determined by the following three factors (listed below in order of decreasing significance):

(1) The width necessary to incorporate more than one potential habitat linkage. Selection of only one path of habitat linkages would not account for the nomadic nature of bears, nor for their spatially large habitat requirements, and would assume (likely incorrectly) that all bears would select the same path while traveling the significant distance that separates existing populations. According to Cox *et al.* (1994, p. 35), ''black bears likely require broader habitat areas rather than thin corridors if connecting distant populations is a goal.''

(2) The feasibility of delineating all existing forested areas that are suitable for smaller scale movements that occur during immigration and emigration between existing populations. Anderson (1997, p. 74 via T. Edwards, USFWS, personal communication) found that bears would travel along ''tree-lined ditches'' that were as narrow as 16 ft (5 m) in width. Delineation of such small linkages (which are often abundant and sinuous) that provide connectivity between existing populations is not technically feasible.

(3) The presence of existing landscape features, such as large water bodies, and State and Federal highways. Placing critical habitat boundaries along large landscape features is preferable because those features often affect or direct bear movements (*i.e.*, form the actual boundary of such movements) and because large landscape features can be clearly defined for regulatory purposes.

We are proposing two such corridors for inclusion within the critical habitat boundary. One occurs in the central portion of Unit 1, and the other is the approximate southern half of Unit 2. The Unit 1 corridor location was selected because it incorporates more habitat containing the essential physical and biological features (including Buckhorn Wildlife Management Area and Bayou Cocodrie National Wildlife Refuge) than any other feasible linkage between the existing populations in that unit. Passage from one core breeding population center to another, outside of that corridor, would involve relatively significant lateral movements that would increase the travel distance between populations, and would require the crossing of natural hydrologic (*e.g.*, the Tensas River) and manmade barriers (*e.g.*, several state highways) that would be otherwise unnecessary with a more direct north to south route as currently delineated with the proposed corridor. Similarly, the Unit 2 corridor location was selected to maximize the inclusion of habitat containing the essential physical and biological features (including Attakapas Island Wildlife Management Area), and to provide the most direct linkage between populations occurring in the northern portion of this unit and in Unit 3. That corridor is located entirely within the Atchafalaya River Basin to avoid the urban development and agricultural expanses occurring outside the Basin levees. We delineated that corridor along the western edge of the Atchafalaya River Basin to incorporate higher elevational areas (based on recent surveys), as those areas would include a higher proportion of suitable habitat. Those higher elevations are considered more suitable because they would facilitate bear movement (by providing more opportunities for dry passage) within the Basin, which is subject to seasonal, long-term, and often severe riverine flooding.

There are lands within the critical habitat boundaries as depicted on the map and described by the Universal Transerve Mercator (UTM) coordinates for the corridors that do not contain the physical and biological features essential for the conservation of the subspecies. We attempted to be as precise as possible in delineating the critical habitat based on the presence of essential features. Using the best available data, we delineated possible travel corridor locations at a landscape level (*i.e.*, between populations). However, the nomadic nature of bears and their spatially large habitat requirements make it difficult to predict, at a local scale (*e.g.*, shrub-lined ditches and bayous, spoil banks, etc.), what route within the corridor a bear may take while traveling the significant distance that separates existing populations.

When determining proposed critical habitat boundaries within this proposed rule, we made every effort to avoid including developed areas such as buildings, paved areas, and other structures, as well as areas in agricultural land use that lack the essential physical and biological features for the Louisiana black bear. The scale of the maps we prepared under the parameters for publication within the Code of Federal Regulations may not reflect the exclusion of such developed or agricultural land use areas. Any such structures and the land under them inadvertently left inside critical habitat boundaries shown on the maps of this proposed rule have been excluded by text in the proposed rule and are not proposed for designation as critical habitat. Therefore, Federal actions involving these areas would not trigger section 7 consultation, unless the specific action would affect the primary constituent elements in the surrounding critical habitat.

**Proposed Critical Habitat Designation**

We are proposing three units as critical habitat for the Louisiana black bear. The critical habitat areas we describe below constitute our current best assessment of areas that meet the definition of critical habitat for the Louisiana black bear. Table 1 shows the occupied units. The three areas we propose as critical habitat are: (1) Tensas River Basin, (2) Upper Atchafalaya River Basin, and (3) Lower Atchafalaya River Basin. The

approximate area of each proposed critical habitat unit is shown in Table 2.

TABLE 1.—OCCUPANCY OF LOUISIANA BLACK BEAR BY PROPOSED CRITICAL HABITAT UNITS

[Total area estimates reflect all land within critical habitat unit boundaries. Acre and hectare values were individually computer-generated using GIS software, rounded to nearest whole number, and then summed. Totals may not match due to rounding]

| Unit | Occupied at time of listing? | Currently occupied? | Size of unit in acres (hectares) |
|---|---|---|---|
| 1 Tensas River Basin | Yes | Yes | 677,256 (274,076) |
| 2 Upper Atchafalaya River Basin | Yes | Yes | 435,227 (176,130) |
| 3 Lower Atchafalaya River Basin | Yes | Yes | 219,152 (88,688) |

TABLE 2.—PROPOSED CRITICAL HABITAT UNITS FOR THE LOUISIANA BLACK BEAR BY LAND OWNERSHIP TYPE

[Total area estimates reflect all land within critical habitat unit boundaries. Acre and hectare values were computer generated individually using GIS software, rounded to nearest whole number, and then summed. Totals may not match due to rounding]

| Critical habitat unit | Federal in acres (hectares) | State in acres (hectares) | Private in acres (hectares) | Total in acres (hectares) |
|---|---|---|---|---|
| 1. Tensas River Basin | 99,955 (40,450) | 119,276 (48,269) | 458,025 (185,356) | 677,256 (274,076) |
| 2. Upper Atchafalaya River Basin | 15,765 (6,380) | 83,314 (33,716) | 336,148 (136,148) | 435,227 (176,130) |
| 3. Lower Atchafalaya River Basin | 7,505 (3,037) | 2,003 (811) | 209,644 (84,840) | 219,152 (88,688) |
| Total | 123,225 (49,867) | 204,593 (82,796) | 1,003,817 (406,344) | 1,331,635 (538,894) |

We present brief descriptions of all units, and reasons why they meet the definition of critical habitat for the Louisiana black bear, below.

*Unit 1: Tensas River Basin Unit*

Unit 1 consists of 677,256 ac (274,075 ha) of Federal, State, and privately owned lands in the Tensas River Basin. It includes portions of Avoyelles, East Carroll, Catahoula, Concordia, Franklin, Madison, Richland, Tensas, West Carroll, and West Feliciana Parishes.

This unit was occupied at the time of listing, and currently provides breeding and corridor habitat for the Louisiana black bear. The perimeter of the northern portion of Unit 1 approximately coincides with the boundaries of the Deltic Timber tracts, Tensas River National Wildlife Refuge, and Big Lake Wildlife Management Area. The perimeter of the southern portion of Unit 1 is bounded primarily by the Red River Wildlife Management Area and Three Rivers Management Area on the north and east, by the Red River, Bayou Jeansonne, and Bayou des Glaises on the west, and the Lower Old River on the south.

The central portion of this unit serves as a corridor and extends from the south boundaries of Big Lake Wildlife Management Area and Tensas River National Wildlife Refuge in Franklin and Tensas Parishes, to the north boundary of Red River Wildlife Management Area in Concordia Parish. The Tensas River and Bayou Cocodrie form most of the western boundary of that corridor. The eastern boundary of that corridor includes the east property boundary of Buckhorn Wildlife Management Area, and Louisiana State Highways 573, 566, and 15. This area contains features essential to the conservation of the Louisiana black bear because it serves as a corridor to maintain habitat linkages for immigration and emigration between the existing breeding populations at the northern and southern extents of this unit. Two of the three recovery criteria listed in the Louisiana black bear recovery plan (USFWS 1995, p. 14) specifically state that the eventual delisting of the Louisiana black bear is contingent upon the establishment (where absent) and long-term maintenance of such corridors. According to Clark (1999, p. 111), the stability and long-term viability of disjunct populations may be precluded in the absence of such corridors.

A relatively small section of breeding habitat along the west border of this unit is not included within the proposed critical habitat boundary because we determined it does not contain the physical and biological features that are necessary for the conservation of the Louisiana black bear. Our determination was based on the following factors: (1) The area does not function as a corridor between existing populations; (2) telemetry data suggest minimal bear use; and (3) the minimum required area that was determined necessary for maintenance of a viable population is achieved for the adjacent subpopulation within Unit 1 without the inclusion of that area.

A significant portion of Unit 1 occurs within State and federally owned or managed lands that include Tensas River National Wildlife Refuge (70,000 ac (28,328 ha)), Big Lake Wildlife Management Area (19,231 ac (7,783 ha)), Buckhorn Wildlife Management Area (11,262 ac (4,558 ha)), Bayou Cocodrie National Wildlife Refuge (13,000 ac (5,261 ha)), Lake Ophelia National Wildlife Refuge (18,000 ac (7,284 ha)), Red River Wildlife Management Area (41,681 ac (16,868 ha)), Three Rivers Wildlife Management Area (27,380 ac (11,080 ha)), and Grassy Lake Wildlife Management Area (12,983 ac (5,254 ha)). Habitat restoration within Unit 1 has been primarily accomplished through the WRP, administered by the Natural Resources Conservation Service

(NRCS)), and a major carbon sequestration/habitat restoration project, initiated by Entergy Corporation, the Trust for Public Land, Environmental Synergy, Inc., and the U.S. Fish and Wildlife Service. Since the Louisiana black bear was listed as a threatened subspecies in 1992, approximately 53,487 ac (21,645 ha) of marginal agricultural land has been restored in this unit as a result of the WRP program; the program includes perpetual protection through conservation easements for most such tracts. The State of Louisiana has purchased 2,420 ac (979 ha) of Wetland Reserve Program lands as an addition to the Buckhorn Wildlife Management Area. As part of an ongoing carbon sequestration initiative, approximately 10,000 acres of marginal agricultural land are planned for purchase, reforestation, and transfer to the Service as an addition to the Tensas River National Wildlife Refuge. The first phase of this project was completed in 2005 and involved reforestation of 2,900 ac (1,174 ha) of land that were added to the Refuge.

Unit 1 contains PCEs 1 and 2. Threats to this subspecies and its habitat that may require special management of the physical and biological features essential for the conservation of the subspecies in this unit include continued habitat fragmentation (from such sources as hydrocarbon exploration and production, transportation development, agricultural activities, and urban sprawl), and human-induced mortality (such as poaching, vehicle strikes, and nuisance abatement activities) which is exacerbated by habitat fragmentation.

*Unit 2: Upper Atchafalaya River Basin Unit*

Unit 2 consists of 435,227 ac (176,130 ha) of Federal, State, and privately owned lands in the Upper Atchafalaya River Basin. It includes portions of Iberia, Iberville, Pointe Coupee, St. Martin, and St. Mary Parishes. This unit was occupied at the time of listing and currently supports breeding and corridor habitat for the Louisiana black bear. The northern half of Unit 2 is bounded primarily by Louisiana Highway 1 on the north, Louisiana Highway 1 and the East Atchafalaya Basin Flood Protection Levee on the east, the Atchafalaya River on the west, and U.S. Interstate 10 on the south. The southern portion extends from U.S. Interstate 10 in St. Martin Parish to U.S. Highway 90 in St. Mary Parish. Its east and west boundaries approximately follow the West Atchafalaya Basin Flood Protection Levee and the Atchafalaya River, respectively. The southern portion of Unit 2 serves as a corridor to maintain immigration and emigration between the existing core breeding populations in Unit 3 and in the northern half of this unit. Two of the three recovery criteria listed in the Louisiana black bear recovery plan (USFWS 1995, p. 14) specifically state that the eventual delisting of the Louisiana black bear is contingent upon the establishment (where absent) and long-term maintenance of such corridors. According to Clark (1999, p. 111), the stability and long-term viability of disjunct populations may be precluded in the absence of such corridors.

Portions of Unit 2 occur within State and federally owned and managed lands that include Atchafalaya National Wildlife Refuge (15,220 ac (6,159 ha)), Sherburne Wildlife Management Area (11,780 ac (4,767 ha)), the U.S. Army Corps of Engineers-owned Bayou Des Ourses Area (17,000 ac (6,880 ha)), and Attakapas Island Wildlife Management Area (27,962 ac (11,316 ha)). Habitat restoration within Unit 2 has been relatively limited and primarily accomplished through the WRP program. Approximately 1,526 ac (618 ha) of marginal agricultural land has been restored in this unit as a result of that program; the program includes perpetual protection through conservation easements for most such tracts.

Unit 2 contains PCEs 1 and 2. Threats to this subspecies and its habitat that may require special management of the physical and biological features essential for the conservation of the subspecies in this unit include continued habitat fragmentation (from such sources as hydrocarbon exploration and production, transportation development, agricultural activities, and urban sprawl), and human-induced mortality (such as poaching, vehicle strikes, and nuisance abatement activities), which is exacerbated by habitat fragmentation.

*Unit 3: Lower Atchafalaya River Basin Unit*

Unit 3 consists of 219,152 ac (88,688 ha) of Federal, State, and privately owned lands in the Lower Atchafalaya River Basin. It lies south of U.S. Highway 90 (Hwy. 90) in Iberia and St. Mary Parishes. This unit was occupied at the time of listing by the Louisiana black bear and currently supports breeding habitat.

In addition to bottomland hardwood forests, bears within this unit also utilize upland hardwood habitats associated with four salt domes (Avery, Cote Blanche, and Weeks Islands, and Belle Isle) and coastal marshes adjacent to those forests. Virtually all of Unit 3 is privately owned, with the exception of the 9,028-ac (3,654-ha) Bayou Teche National Wildlife Refuge, which is unique in that it is the only National Wildlife Refuge established specifically for the conservation of the Louisiana black bear. The boundaries of Unit 3 approximately coincide with U.S. Highway 90 to the north, the Gulf Intracoastal Waterway to the south, Avery Island to the west, and the Lower Atchafalaya River to the east.

A relatively small section of breeding habitat along the southeast border of this unit was not included within the critical habitat boundary because we determined it does not contain physical and biological features that are necessary for the conservation of the Louisiana black bear. Our determination was based on the following factors: (1) The area consists primarily of marsh habitat, which is of minimal value for bears (particularly in regard to foraging, bedding, and denning); (2) the area does not function as a corridor between existing populations or areas of high habitat value; (3) telemetry data indicate minimal bear use; and (4) the minimum required area that was determined necessary for maintenance of a viable population is achieved for the adjacent subpopulation within Unit 3 without the inclusion of that area.

A significant acreage of bottomland hardwood forests in private ownership not associated with the four salt domes is flood-protected via levees, man-made ditches, and pumps. Those flood protection features have caused such forests to lose their wetland classification and associated regulatory protection under the Clean Water Act. Subsequently, there is continual development along the Hwy. 90 corridor within Unit 3, most of which is not subject to Federal regulation. The Federal Highway Administration and the Louisiana Department of Transportation have proposed an upgrade of U.S. Highway 90, within this unit, to Interstate Highway System standards as an extension of U.S. Interstate Highway 49.

Unit 3 contains PCE 1. Threats to this subspecies and its habitat that may require special management of the physical and biological features essential for the conservation of the subspecies in this unit include continued habitat fragmentation (from such sources as hydrocarbon exploration and production, transportation development, agricultural activities, and urban sprawl), and human-induced mortality (such as poaching, vehicle strikes, and nuisance

abatement activities), which is exacerbated by habitat fragmentation.

**Effects of Critical Habitat Designation**

*Section 7 Consultation*

Section 7(a)(2) of the Act requires Federal agencies, including the Service, to ensure that actions they fund, authorize, or carry out are not likely to destroy or adversely modify critical habitat. Decisions by the 5th and 9th Circuit Courts of Appeals have invalidated our definition of ''destruction or adverse modification'' (50 CFR 402.02) (see *Gifford Pinchot Task Force* v. *U.S. Fish and Wildlife Service,* 378 F.3d 1059 (9th Cir 2004) and *Sierra Club* v. *U.S. Fish and Wildlife Service et al.*, 245 F.3d 434, 442F (5th Cir. 2001)), and we do not rely on this regulatory definition when analyzing whether an action is likely to destroy or adversely modify critical habitat. Under the statutory provisions of the Act, we determine destruction or adverse modification on the basis of whether, with implementation of the proposed Federal action, the affected critical habitat would remain functional (or retain the current ability for the PCEs, and therefore the essential physical and biological features) to be functionally established) to serve its intended conservation role for the species.

If a species is listed or critical habitat is designated, section 7(a)(2) of the Act requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of the species or to destroy or adversely modify its critical habitat. If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency (action agency) must enter into consultation with us. As a result of this consultation, we document compliance with the requirements of section 7(a)(2) through our issuance of:

(1) A concurrence letter for Federal actions that may affect, but are not likely to adversely affect, listed species or critical habitat; or

(2) A biological opinion for Federal actions that may affect, and are likely to adversely affect, listed species or critical habitat.

When we issue a biological opinion concluding that a project is likely to jeopardize the continued existence of a listed species or destroy or adversely modify critical habitat, we also provide reasonable and prudent alternatives to the project, if any are identifiable. We define ''reasonable and prudent alternatives'' at 50 CFR 402.02 as alternative actions identified during consultation that:

- Can be implemented in a manner consistent with the intended purpose of the action,
- Can be implemented consistent with the scope of the Federal agency's legal authority and jurisdiction,
- Are economically and technologically feasible, and
- Would, in the Director's opinion, avoid jeopardizing the continued existence of the listed species or destroying or adversely modifying critical habitat.

Reasonable and prudent alternatives can vary from slight project modifications to extensive redesign or relocation of the project. Costs associated with implementing a reasonable and prudent alternative are similarly variable.

Regulations at 50 CFR 402.16 require Federal agencies to reinitiate consultation on previously reviewed actions in instances where we have listed a new species or subsequently designated critical habitat that may be affected and the Federal agency has retained discretionary involvement or control over the action (or the agency's discretionary involvement or control is authorized by law). Consequently, Federal agencies may sometimes need to request reinitiation of consultation with us on actions for which formal consultation has been completed, if those actions with discretionary involvement or control may affect subsequently listed species or designated critical habitat.

If a species is listed or critical habitat is designated, section 7(a)(2) of the Act requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of the species or to destroy or adversely modify its critical habitat. Activities on State, Tribal, local, or private lands requiring a Federal permit (such as a permit from the U.S. Army Corps of Engineers under section 404 of the Clean Water Act (33 U.S.C. 1251 *et seq.*) or a permit from us under section 10 of the Act) or involving some other Federal action (such as funding from the Federal Highway Administration, Federal Aviation Administration, or the Federal Emergency Management Agency) are subject to the section 7(a)(2) consultation process. Federal actions not affecting listed species or critical habitat, and actions on State, Tribal, local, or private lands that are not federally funded, authorized, or permitted, do not require section 7(a)(2) consultations.

*Application of the Adverse Modification Standard*

The key factor related to the adverse modification determination is whether, with implementation of the proposed Federal action, the affected critical habitat would continue to serve its intended conservation role for the species, or would retain its current ability for the primary constituent elements to be functionally established. Activities that may destroy or adversely modify critical habitat are those that alter the PCEs, and subsequently the essential physical and biological features) to an extent that appreciably reduces the conservation value of critical habitat for the Louisiana black bear.

Section 4(b)(8) of the Act requires us to briefly evaluate and describe, in any proposed or final regulation that designates critical habitat, activities involving a Federal action that may destroy or adversely modify such habitat, or that may be affected by such designation.

Activities that, when carried out, funded, or authorized by a Federal agency, may affect critical habitat and therefore should result in consultation for the Louisiana black bear include, but are not limited to:

(1) Actions that would reduce the extent of habitat available for population maintenance or expansion or that would negatively alter the function of forested corridors, which facilitate genetic exchange between existing populations, through the permanent conversion or fragmentation of those forested habitats. Such activities could include, but are not limited to, initiation or expansion of agricultural operations; hydrocarbon exploration and development; commercial, industrial, and residential development; flood control projects that involve clearing of woody vegetation on U.S. Army Corps of Engineers flowage easement lands; and other activities that would require the permanent removal or fragmentation of forested wetlands.

(2) Actions that would create significant barriers to movement both within and among existing populations. Those activities could reduce the availability of habitat for foraging, denning, escape, reproduction, and sheltering within populations, and severely limit or prevent dispersal and genetic exchange among populations. Such actions could include, but are not limited to road construction, large-scale or wide-ranging development, and flood-control projects that would involve barriers that are impermeable to bears.

(3) Actions performed by the U.S. Army Corps of Engineers that would result in significant habitat losses on their flowage easement lands within the Atchafalaya River Basin. Those activities could include large-scale, temporary clearing of all woody vegetation on easement lands to facilitate drainage of the Mississippi and Atchafalaya Rivers during extraordinarily high water periods. Such activities could temporarily eliminate habitat for foraging, denning, escape, reproduction, and sheltering within populations occurring in Unit 2, and severely limit or prevent dispersal and genetic exchange between populations within Units 2 and 3.

**Exclusion Under Section 4(b)(2) of the Act**

**Application of Section 4(b)(2) of the Act**

Section 4(b)(2) of the Act states that the Secretary must designate and revise critical habitat on the basis of the best available scientific data after taking into consideration the economic impact, national security impact, and any other relevant impact of specifying any particular area as critical habitat. In considering whether to exclude a particular area from the designation, we must identify the benefits of including the area in the designation, identify the benefits of excluding the area from the designation, and determine whether the benefits of exclusion outweigh the benefits of inclusion. The Secretary may exclude an area from critical habitat if he determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless he determines, based on the best scientific data available, that the failure to designate such area as critical habitat will result in the extinction of the species. In making that determination, the legislative history is clear that the Secretary has broad discretion regarding which factors to use and how much weight to give to any factor.

Under section 4(b)(2) of the Act, we must consider all relevant impacts, including economic impacts. We consider a number of factors in a section 4(b)(2) analysis. For example, we consider whether there are lands owned or managed by the Department of Defense (DOD) where a national security impact might exist. We also consider whether the landowners have developed any conservation plans for the area, or whether there are conservation partnerships that would be encouraged by designation of, or exclusion of lands from, critical habitat. In addition, we look at any tribal issues, and consider the government-to-government relationship of the United States with tribal entities. We also consider any social impacts that might occur because of the designation.

In preparing this proposal, we have determined that the lands within the proposed designation of critical habitat for Louisiana black bear are not owned or managed by the Department of Defense, there are currently no Habitat Conservation Plans (HCPs) for Louisiana black bear, and the proposed designation does not include any Tribal lands or trust resources. At the time of listing, approximately one-half of Louisiana black bear breeding habitat was privately owned (BBCC 1997, p. 31). Voluntary conservation efforts by private landowners are vital for the conservation and recovery of this subspecies. Significant progress has been made in habitat restoration for the Louisiana black bear since listing. Since the Louisiana black bear was listed we estimated an increase of more than 600,000 acres that are under some form of protection from development or land conversion and that benefit black bear conservation. One important component of those restoration activities is management actions taken by private landowners. Within critical habitat, over 55,000 ac (22,250 ha) of private lands have been enrolled in the NRCS WRP, which has benefited Louisiana black bear conservation since 1992. The WRP provides an incentive for private landowners to convert non-productive farmland back to bottomland hardwoods and many of these lands received higher rankings (when evaluated for enrollment) because of their benefit to Louisiana black bear conservation. Landowners enrolling in the WRP sign permanent easements protecting the restored land from future conversion or development. At this time, we are evaluating the sufficiency of protection these WRP permanent easements provide. Therefore, we are specifically soliciting public comments on the possible exclusion here of private lands enrolled in the WRP via a permanent easement.

We anticipate no impact to national security, Tribal lands, or HCPs from this proposed critical habitat designation. Based on the best available information, we believe that all of these units contain the features essential to the subspecies. At this time, we have not analyzed areas for which the benefits of exclusion outweigh the benefits of inclusion; therefore we are not identifying any specific exclusions for the final rule designating critical habitat for Louisiana black bear. However, during the development of a final designation, we will be considering economic and other relevant impacts and additional conservation plans, if available, such that areas may be excluded from the final critical habitat designation under section 4(b)(2).

*Economics*

Section 4(b)(2) of the Act allows the Secretary to exclude areas from critical habitat for economic reasons if the Secretary determines that the benefits of such exclusion exceed the benefits of designating the area as critical habitat. However, this exclusion cannot occur if it will result in the extinction of the species concerned.

We are preparing an analysis of the economic impacts of proposing critical habitat for the Louisiana black bear. We will announce the availability of the draft economic analysis as soon as it is completed, at which time we will seek public review and comment. At that time, copies of the draft economic analysis will be available for downloading from the Internet at *http://www.regulations.gov,* or from the Louisiana Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT**). We may exclude areas from the final rule based on the information in the economic analysis.

*Peer Review*

In accordance with our joint policy published in the **Federal Register** on July 1, 1994 (59 FR 34270), we will seek the expert opinions of at least three appropriate and independent specialists regarding this proposed rule. The purpose of peer review is to ensure that our critical habitat designation is based on scientifically sound data, assumptions, and analyses. We have invited these peer reviewers to comment during this public comment period on our specific assumptions and conclusions in this proposed designation of critical habitat.

We will consider all comments and information we receive during this comment period on this proposed rule during our preparation of a final determination. Accordingly, our final decision may differ from this proposal.

*Public Hearings*

The Act provides for one or more public hearings on this proposal, if we receive any requests for hearings. We must receive your request for a public hearing by the date in the **DATES** section. Send your request to the address shown in the **ADDRESSES** section. We will schedule public hearings on this proposal, if any are requested, and announce the dates, times, and places of those hearings, as well as how to obtain

reasonable accommodations, in the **Federal Register** and local newspapers at least 15 days before the first hearing.

**Required Determinations**

*Regulatory Planning and Review*

The Office of Management and Budget (OMB) has determined that this rule is not significant and has not reviewed this rule under Executive Order 12866 (E.O. 12866). OMB bases its determination upon the following four criteria:

(a) Whether the rule will have an annual effect of $100 million or more on the economy or adversely affect an economic sector, productivity, jobs, the environment, or other units of the government.

(b) Whether the rule will create inconsistencies with other Federal agencies' actions.

(c) Whether the rule will materially affect entitlements, grants, user fees, loan programs, or the rights and obligations of their recipients.

(d) Whether the rule raises novel legal or policy issues.

*Regulatory Flexibility Act*

Under the Regulatory Flexibility Act (RFA; 5 U.S.C. 601 *et seq.*, as amended by the Small Business Regulatory Enforcement Fairness Act (SBREFA) of 1996), whenever an agency must publish a notice of rulemaking for any proposed or final rule, it must prepare and make available for public comment a regulatory flexibility analysis that describes the effects of the rule on small entities (small businesses, small organizations, and small government jurisdictions). However, no regulatory flexibility analysis is required if the head of the agency certifies the rule will not have a significant economic impact on a substantial number of small entities. SBREFA amended the RFA to require Federal agencies to provide a statement of the factual basis for certifying that the rule will not have a significant economic impact on a substantial number of small entities.

At this time, we lack the full economic information necessary to provide an adequate factual basis for the required RFA finding. Therefore, we defer the RFA finding until completion of the DEA prepared under section 4(b)(2) of the Act and E.O. 12866. Our draft economic analysis will provide updated and more complete information and the required factual basis for the RFA finding. Upon completion of the draft economic analysis, we will announce availability of the draft economic analysis of the proposed designation in the **Federal Register** and reopen the public comment period for the proposed designation. We will include with this announcement, as appropriate, an initial regulatory flexibility analysis or a certification that the rule will not have a significant economic impact on a substantial number of small entities accompanied by the factual basis for that determination. We have concluded that deferring the RFA finding until completion of the draft economic analysis is necessary to meet the purposes and requirements of the RFA. Deferring the RFA finding in this manner will ensure that we make a sufficiently informed determination based on adequate economic information and provide the necessary opportunity for public comment.

*Unfunded Mandates Reform Act*

In accordance with the Unfunded Mandates Reform Act (2 U.S.C. 1501 *et seq.*), we make the following findings:

(a) This rule will not produce a Federal mandate. In general, a Federal mandate is a provision in legislation, statute, or regulation that would impose an enforceable duty upon State, local, or Tribal governments, or the private sector, and includes both ''Federal intergovernmental mandates'' and ''Federal private sector mandates.'' These terms are defined in 2 U.S.C. 658(5)–(7). ''Federal intergovernmental mandate'' includes a regulation that ''would impose an enforceable duty upon State, local, or [T]ribal governments,'' with two exceptions. It excludes ''a condition of Federal assistance.'' It also excludes ''a duty arising from participation in a voluntary Federal program,'' unless the regulation ''relates to a then-existing Federal program under which $500,000,000 or more is provided annually to State, local, and Tribal governments under entitlement authority,'' if the provision would ''increase the stringency of conditions of assistance'' or ''place caps upon, or otherwise decrease, the Federal Government's responsibility to provide funding,'' and the State, local, or Tribal governments ''lack authority'' to adjust accordingly. At the time of enactment, these entitlement programs were: Medicaid; AFDC work programs; Child Nutrition; Food Stamps; Social Services Block Grants; Vocational Rehabilitation State Grants; Foster Care, Adoption Assistance, and Independent Living; Family Support Welfare Services; and Child Support Enforcement. ''Federal private sector mandate'' includes a regulation that ''would impose an enforceable duty upon the private sector, except (i) a condition of Federal assistance or (ii) a duty arising from participation in a voluntary Federal program.''

The designation of critical habitat does not impose a legally binding duty on non-Federal government entities or private parties. Under the Act, the only regulatory effect is that Federal agencies must ensure that their actions do not destroy or adversely modify critical habitat under section 7. While non-Federal entities that receive Federal funding, assistance, or permits, or that otherwise require approval or authorization from a Federal agency for an action may be indirectly impacted by the designation of critical habitat, the legally binding duty to avoid destruction or adverse modification of critical habitat rests squarely on the Federal agency. Furthermore, to the extent that non-Federal entities are indirectly impacted because they receive Federal assistance or participate in a voluntary Federal aid program, the Unfunded Mandates Reform Act would not apply, nor would critical habitat shift the costs of the large entitlement programs listed above on to State governments.

(b) We do not believe that this rule will significantly or uniquely affect small governments. The government owned lands we are proposing for critical habitat designation are owned by the State of Louisiana, U.S. Fish and Wildlife Service, Natural Resources Conservation Service, and the U.S. Army Corps of Engineers. None of these government entities fit the definition of ''small governmental jurisdiction.'' Therefore, a Small Government Agency Plan is not required. However, we will further evaluate this issue as we conduct our economic analysis, and review and revise this assessment as warranted.

*Takings*

In accordance with E.O. 12630 (Government Actions and Interference with Constitutionally Protected Private Property Rights), we have analyzed the potential takings implications of designating critical habitat for the Louisiana black bear in a takings implications assessment. The takings implications assessment concludes that this designation of critical habitat for the Louisiana black bear does not pose significant takings implications for lands within or affected by the designation.

*Federalism*

In accordance with E.O. 13132 (Federalism), this proposed rule does not have significant Federalism effects. A Federalism assessment is not required. In keeping with Department of

the Interior and Department of Commerce policy, we requested information from, and coordinated development of, this proposed critical habitat designation with appropriate State resource agencies in Louisiana. The designation of critical habitat in areas currently occupied by the Louisiana black bear may impose little additional restrictions to those currently in place and, therefore, is believed to have little incremental impact on State and local governments and their activities. The designation may have some benefit to these governments because the areas that contain the features essential to the conservation of the species are more clearly defined, and the primary constituent elements of the habitat essential to the conservation of the species are specifically identified. This information does not alter where and what federally sponsored activities may occur. However, it may assist local governments in long-range planning (rather than having them wait for case-by-case section 7 consultations to occur).

*Civil Justice Reform*

In accordance with E.O. 12988 (Civil Justice Reform), the regulation meets the applicable standards set forth in sections 3(a) and 3(b)(2) of the Order. We have proposed designating critical habitat in accordance with the provisions of the Act. This proposed rule uses standard property descriptions and identifies the primary constituent elements within the designated areas to assist the public in understanding the habitat needs of the Louisiana black bear.

*Paperwork Reduction Act*

This rule does not contain any new collections of information that require approval by OMB under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 *et seq.*). This rule will not impose recordkeeping or reporting requirements on State or local governments, individuals, businesses, or organizations. 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.

*National Environmental Policy Act (NEPA)*

It is our position that, outside the jurisdiction of the Circuit Court of the United States for the Tenth Circuit, we do not need to prepare environmental analyses as defined by NEPA (42 U.S.C. 4321 *et seq.*) in connection with designating critical habitat under the Act. We published a notice outlining our reasons for this determination in the **Federal Register** on October 25, 1983 (48 FR 49244). This assertion was upheld by the Circuit Court of the United States for the Ninth Circuit (*Douglas County* v. *Babbitt,* 48 F.3d 1495 (9th Cir. 1995), cert. denied, 516 U.S. 1042 (1996)).

*Clarity of the Rule*

We are required by Executive Orders 12866 and 12988 and by the Presidential Memorandum of June 1, 1998, to write all rules in plain language. This means that each rule we publish must:

(a) Be logically organized;

(b) Use the active voice to address readers directly;

(c) Use clear language rather than jargon;

(d) Be divided into short sections and sentences; and

(e) Use lists and tables wherever possible.

If you feel that we have not met these requirements, send us comments by one of the methods listed in the **ADDRESSES** section. To better help us revise the rule, your comments should be as specific as possible. For example, you should tell us the numbers of the sections or paragraphs that are unclearly written, which sections or sentences are too long, the sections where you feel lists or tables would be useful, etc.

*Government-to-Government Relationship With Tribes*

In accordance with the President's memorandum of April 29, 1994, Government-to-Government Relations with Native American Tribal Governments (59 FR 22951), E.O. 13175, and the Department of the Interior's manual at 512 DM 2, we readily acknowledge our responsibility to communicate meaningfully with recognized Federal Tribes on a government-to-government basis. In accordance with Secretarial Order 3206 of June 5, 1997 (American Indian Tribal Rights, Federal-Tribal Trust Responsibilities, and the Endangered Species Act), we readily acknowledge our responsibilities to work directly with Tribes in developing programs for healthy ecosystems, to acknowledge that tribal lands are not subject to the same controls as Federal public lands, to remain sensitive to Indian culture, and to make information available to Tribes. We have determined that there are no Tribal lands occupied at the time of listing that contain the features essential for the conservation, and no Tribal lands that are essential for the conservation, of the Louisiana black bear. Therefore, we have not proposed designation of critical habitat for the Louisiana black bear on Tribal lands.

*Energy Supply, Distribution, or Use*

On May 18, 2001, the President issued an Executive Order (E.O. 13211; Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use) on regulations that significantly affect energy supply, distribution, and use. E.O. 13211 requires agencies to prepare Statements of Energy Effects when undertaking certain actions. We do not expect this proposed rule to significantly affect energy supplies, distribution, or use. Therefore, this action is not a significant energy action, and no Statement of Energy Effects is required. However, we will further evaluate this issue as we conduct our economic analysis, and review and revise this assessment as warranted.

*References Cited*

A complete list of all references cited in this rulemaking is available upon request from the Field Supervisor, Louisiana Fish and Wildlife Office (see **FOR FURTHER INFORMATION CONTACT**).

*Author(s)*

The primary author of this package is the Louisiana Fish and Wildlife Office.

**List of Subjects in 50 CFR Part 17**

Endangered and threatened species, Exports, Imports, Reporting and recordkeeping requirements, Transportation.

**Proposed Regulation Promulgation**

Accordingly, we propose to amend part 17, subchapter B of chapter I, title 50 of the Code of Federal Regulations, as set forth below:

## PART 17—[AMENDED]

1. The authority citation for part 17 continues to read as follows:

**Authority:** 16 U.S.C. 1361–1407; 16 U.S.C. 1531–1544; 16 U.S.C. 4201–4245; Public Law 99–625, 100 Stat. 3500; unless otherwise noted.

2. In § 17.11(h), revise the entry for ''Bear, Louisiana black'' under ''MAMMALS'' in the List of Endangered and Threatened Wildlife to read as follows:

**§ 17.11 Endangered and threatened wildlife.**

* * * * *

(h) * * *

| Species | | Historic range | Vertebrate population where endangered or threatened | Status | When listed | Critical habitat | Special rules |
|---|---|---|---|---|---|---|---|
| Common name | Scientific name | | | | | | |
| MAMMALS | | | | | | | |
| * | * | * | * | * | * | | * |
| Bear, Louisiana black | *Ursus americanus luteolus.* | U.S.A. (LA-all counties; MS-all counties south of or touching a line from Greenville, Washington County, to Meridian, Lauderdale County; TX-all counties east of or touching a line from Linden, Cass County, SW to Bryan, Brazos County, thence SSW to Rockport, Aransas County). | Entire | T | 456 | 17.95(a) | 17.40(i) |
| * | * | * | * | * | * | | * |

3. In § 17.95, amend paragraph (a) by adding an entry for Louisiana black bear (*Ursus americanus luteolus*), in the same order that the subspecies appears in the table at § 17.11 (h), to read as follows:

**§ 17.95 Critical habitat—fish and wildlife.**

(a) Mammals.

* * * * *

Louisiana Black Bear (*Ursus americanus luteolus*)

(1) Critical habitat units are depicted for Avoyelles, East Carroll, Catahoula, Concordia, Franklin, Iberia, Iberville, Madison, Pointe Coupee, Richland, St. Martin, St. Mary, Tensas, West Carroll, and West Feliciana Parishes, Louisiana, on the maps below.

(2) The primary constituent elements of critical habitat for the Louisiana black bear are the habitat components that provide:

(i) Breeding habitat (*i.e.*, within or contiguous to the home range of females in a core breeding population) consisting of hardwood forest areas having a diversity of age class and species and containing sources of hard mast (acorns and nuts) produced by such species as mature oaks, hickories, and pecan, and that may include one or more of the following:

(A) Areas containing soft mast provided by a diversity of plant species, including, but not limited to, blackberry, grape, mulberry, sassafras, paw paw, etc., occurring primarily in forest openings, on spoil banks, and in areas adjacent to forested habitat.

(B) Areas within forested habitat providing protein sources consisting of beetles and other colonial insects found in rotting and decaying wood found on the forest floor.

(C) Grasses and sedges found in forest openings, on spoil banks with open canopies, and in vegetated areas adjacent to forested habitats.

(D) Secure areas for reproduction, winter dormancy, day bedding, and escape. These include areas with den trees (*e.g.*, bald cypress, overcup oak, American sycamore, etc); areas with a thick understory, shrub-scrub habitat, openings along spoil banks, vegetated areas adjacent to forests, or any vegetation that provides cover, limits visibility, slows foot travel, or creates noise when traversed; early successional forests (0 to 12 years) with an open canopy and dense understory of shrubs, vines, and saplings; or areas with vegetation such as palmetto, greenbriars, blackberry, dewberry, and downed trees.

(ii) Corridors consisting of:

(A) Habitat patches 12 ac (5 ha) or greater in size; or

(B) Forested areas greater than 150 ft (46 m) along waterways and sloughs and having a diversity of plant species and age-classes of sufficient area, quality, and configuration, as described in paragraph (2)(i) of this entry, to provide dispersal habitat between breeding populations to maintain genetic variability and promote stable or increasing populations, and to provide habitat supporting safe movement, foraging, and denning.

(3) Critical habitat does not include manmade structures (such as buildings, aqueducts, runways, roads, and other paved areas) and the land on which they are located existing within the legal boundaries on the effective date of this rule.

(4) *Critical habitat map units.* Data layers defining map units were created on a base of USGS digital ortho-photo quarter-quadrangles, and critical habitat units were then mapped using Universal Transverse Mercator (UTM) Zone 15N coordinates.

(5) Note: Index map follows:

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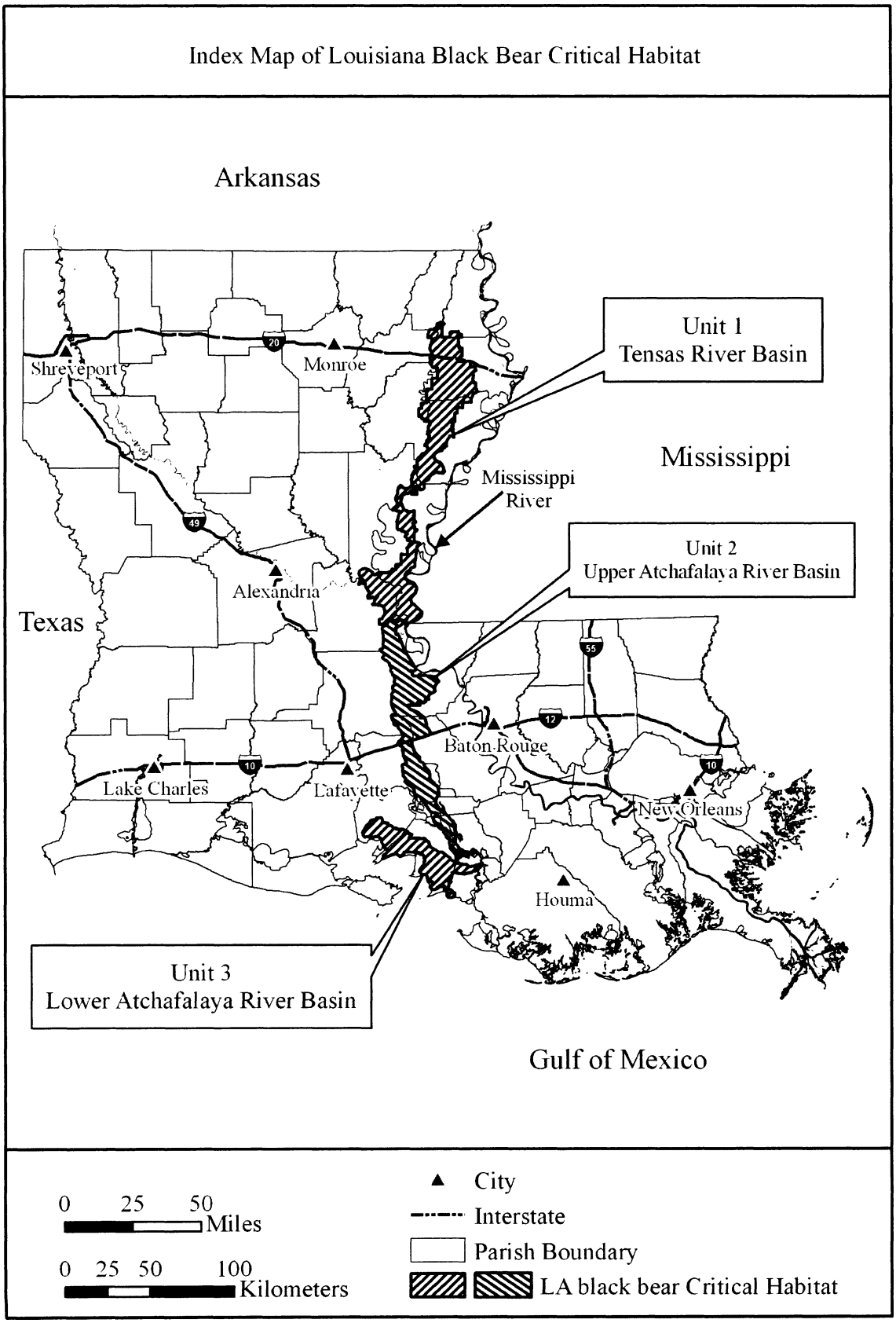


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(6) Unit 1: Tensas River Basin.

(i) From USGS 1:24,000 scale digital ortho-photo quarter-quadrangles: Acme SE; Acme SW; Big Bend NE; Big Bend NW; Big Bend SE; Big Bend SW; Como NE; Como SE; Crowville NE; Crowville SE; Deer Park NW; Deer Park SW; Delhi

NE; Delhi NW; Delhi SE; Delhi SW; Dunbarton NE; Dunbarton NW; Dunbarton SE; Dunbarton SW; Epps NE; Epps NW; Epps SE; Epps SW; Fairview NW; Fairview SW; Ferriday North NE; Ferriday North NW; Ferriday South NW; Ferriday South SW; Fort Adams NW; Fort Adams SE; Fort Adams SW; Fortune Fork NW; Fortune Fork SW; Foules NE; Foules NW; Foules SE; Foules SW; Frogmore NE; Frogmore NW; Frogmore SE Frogmore SW; Gretna Green NE; Gretna Green NW; Gretna Green SE; Gretna Green SW; Ile Natchitoches NE; Ile Natchitoches NW; Ile Natchitoches SE; Ile Natchitoches SW; Indian Lake NE; Indian Lake NW; Indian Lake SE; Indian Lake SW; Innis NE; Lac Sainte Agnes NE; Lac Sainte Agnes NW; Lac Sainte Agnes SE; Lake Bruin NW; Lake Mary NW; Lake Mary SW; Lamar SE; Larto Lake South SE; Larto Lake South SW; Lower Sunk Lake NE; Lower Sunk Lake NW; Lower Sunk Lake SE; Lower Sunk Lake SW; Monterry NE; Monterry SE; Newlight NE; Newlight NW; Newlight SE; Newlight SW; Oakley NE; Oakley SE; Oakley SW; Panther Lake NE; Panther Lake NW; Panther Lake SE; Panther Lake SW; Saranac NW; Saranac SW; Simmesport NE; Simmesport NW; Slocum NE; Slocum NW; Slocum SE; Slocum SW; Somerset NW; Tallulah SW; Tendale NE; Tendal NW; Tendal SE; Tendal SW; Tensas Bluff NE; Tensas Bluff NW; Tensas Bluff SE; Tensas Bluff SW; Turnbull Island NE; Turnbull Island NW; Turnbull Island SE; Turnbull Island SW; Waterproof NE; Waterproof NW; Waterproof SE; Waterproof SW; Waverly SE NE; Waverly SE NW; Waverly SE SE; Waverly SE SW; Westwood NE; Westwood NW; Westwood SE; Westwood SW; Louisiana. Land bounded by the following UTM Zone 15N, North American Datum of 1983 (NAD83) coordinates (E, N): 627070, 3431218; 618220, 3431485; 614348, 3433932; 615247, 3438430; 612584, 3440854; 626123, 3431776; 617768, 3431231; 614471, 3434089; 615216, 3438464; 612531, 3440860; 625650, 3432072; 617606, 3431085; 614560, 3434183; 615191, 3438488; 612475, 3440863; 625406, 3432226; 617426, 3430847; 614625, 3434252; 615151, 3438562; 612410, 3440872; 625184, 3432321; 617241, 3430530; 614683, 3434324; 615091, 3438681; 612322, 3440881; 624930, 3432387; 617093, 3430154; 614710, 3434353; 615039, 3438779; 612255, 3440892; 624737, 3432448; 616955, 3429720; 614780, 3434476; 615006, 3438858; 612193, 3440905; 624411, 3432472; 616887, 3429397; 614844, 3434624; 614974, 3438974; 612159, 3440910; 624152, 3432456; 616741, 3429104; 614916, 3434774; 614954, 3439032; 612123, 3440914; 623962, 3432377; 616551, 3428866; 614963, 3434868; 614934, 3439113; 612070, 3440914; 623811, 3432300; 616315, 3428667; 615037, 3435015; 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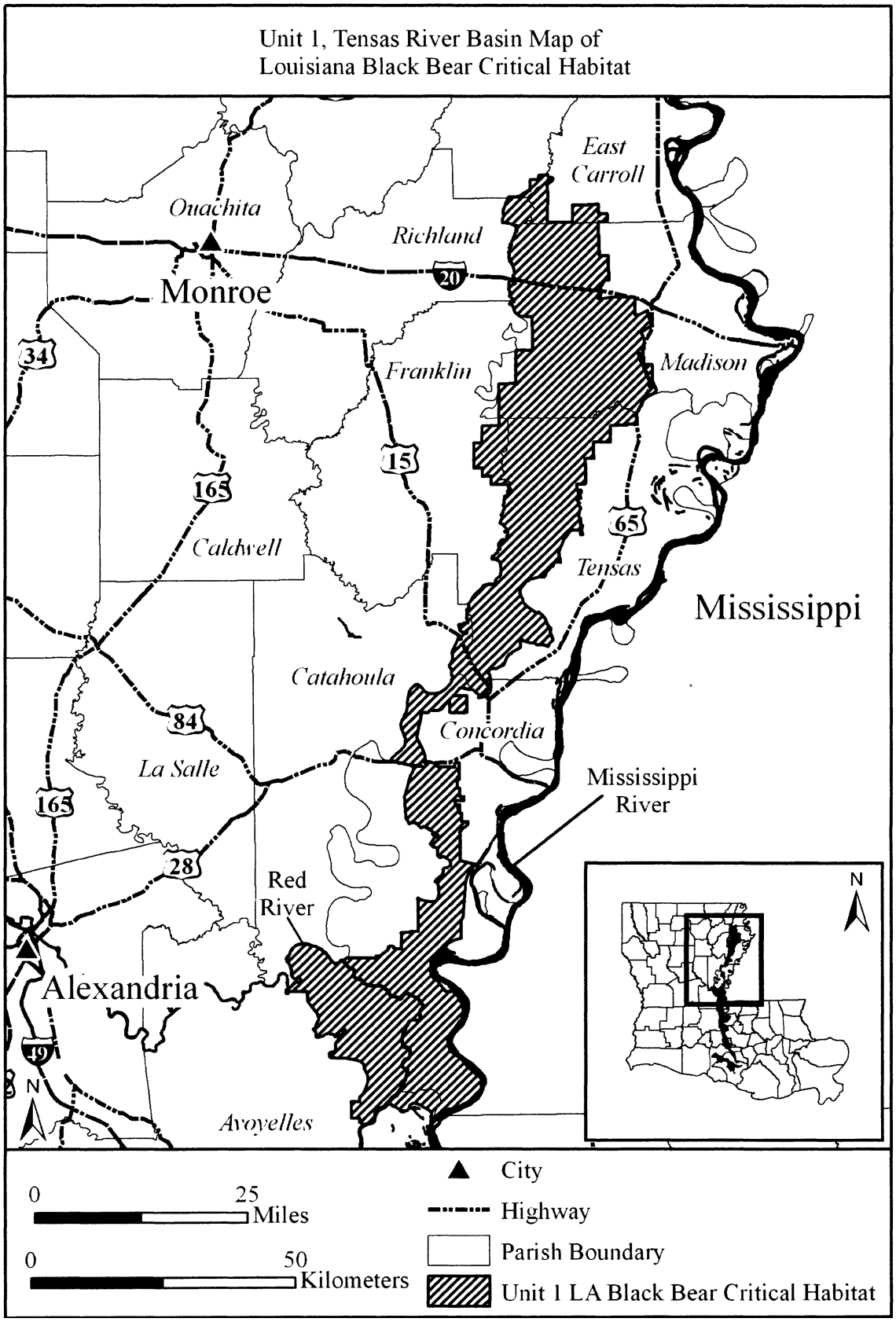
(ii) Map of Unit 1, Tensas River Basin, follows:

BILLING CODE 4310–55–P




(7) Unit 2: Upper Atchafalaya River Basin.

(i) From USGS 1:24,000 scale digital ortho-photo quarter-quadrangles: Batchelor NE; Batchelor NW; Batchelor SE; Batchelor SW; Bayou Current NE; Bayou Current NW; Bayou Current SE; Big Bend SE; Butte La Rose NE; Butte

La Rose NW; Butte La Rose SE; Butte La Rose SW; Catahoula NE; Catahoula NW; Catahoula SE; Catahoula SW; Centerville NE; Centerville NE SW; Centerville NW; Centerville NW NE; Centerville NW NW; Centerville NW SE; Centerville NW SW; Centerville SE; Charenton NE; Charenton SE; Cow Bayou NW; Cow Bayou SW; Erwinville NW; Fordoche NE; Fordoche NW; Fordoche; Grand River SW; Innis NE; Innis NW; Innis SE; Innis Jackass Bay NE; Jackass Bay NW; Jackass Bay SE; Jackass Bay SW; Krotz Springs NE; Krotz Springs SE; Lacour SW; Lake Chicot NW; Lake Chicot SW; Lake Mongoulois NE; Lake Mongoulois NW; Lake Mongoulois SE; Lake Mongoulois SW; Loreauville NE; Lottie NE; Lottie NW; Lottie SE; Lottie SW; Maringouin NE; Maringouin NW; Maringouin NW NE; Maringouin NW NW; Maringouin NW SE; Maringouin NW SW; Maringouin SE; Maringouin SW; Melville NE; Melville NW; Melville SE; Melville SW; Morganza NE; Morganza NW; Morganza SE; Morganza SW; New Roads NW; New Roads SW; North Bend NE; Patterson NE; Patterson NW; Portage NE; Simmesport NE; Simmesport SE; Swayze Lake NE; Tiger Island NW; Tiger Island SE; Tiger Island SW; Turnbull Island SE; Turnbull Island SW; Louisiana. 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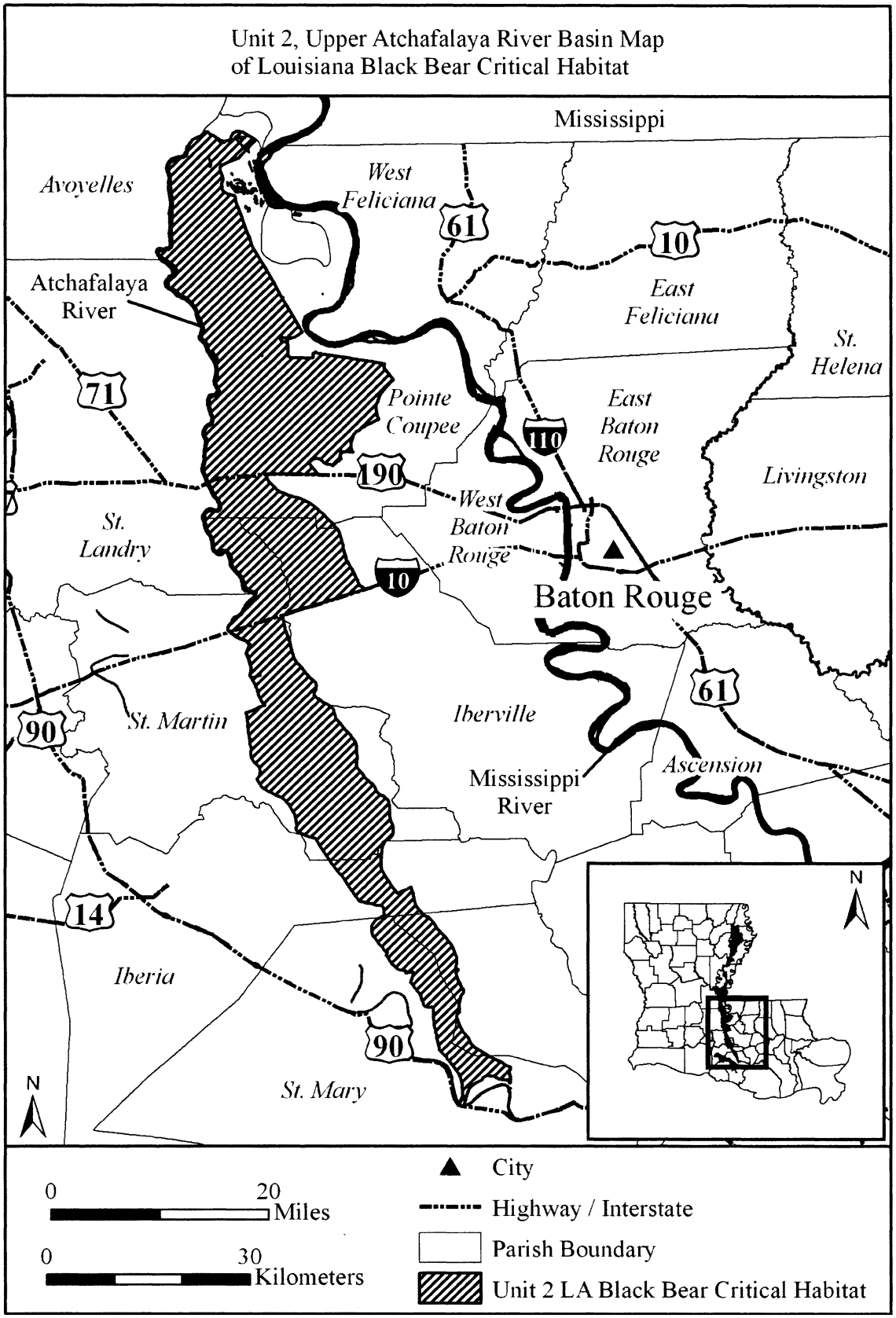
(ii) Map of Unit 2, Upper Atchafalaya River Basin, follows:

**BILLING CODE 4310–55–P**




BILLING CODE 4310–55–C

(8) Unit 3: Lower Atchafalaya River Basin.

(i) From USGS 1:24,000 scale digital ortho-photo quarter-quadrangles: Belle Isle NE; Belle Isle NW; Belle Isle SE; Belle Isle SW; Centerville SW; Delcambre NE; Delcambre SE; Delcambre SW; Ellerslie NE; Ellerslie

NW; Ellerslie SE; Ellerslie SW; Franklin NE; Franklin NW; Franklin SE; Franklin SW; Hammock Lake NE; Hammock Lake NW; Jeanerette SE; Jeanerette SW; Kemper NE; Kemper NW; Kemper SE; Kemper SW; Marone Point NW; Morgan City NW; Morgan City SW; New Iberia South NW; New Iberia South SE; New Iberia South SW; North Bend NE; North Bend NW; North Bend SE; North Bend SW; Patterson NE; Patterson NW; Patterson SE; Patterson SW; Point Chevreuil NE; Point Chevreuil SE; Tigre Lagoon NE; Tigre Lagoon NW; Weeks NE; Weeks NW; Weeks SE; Weeks SW; Louisiana. 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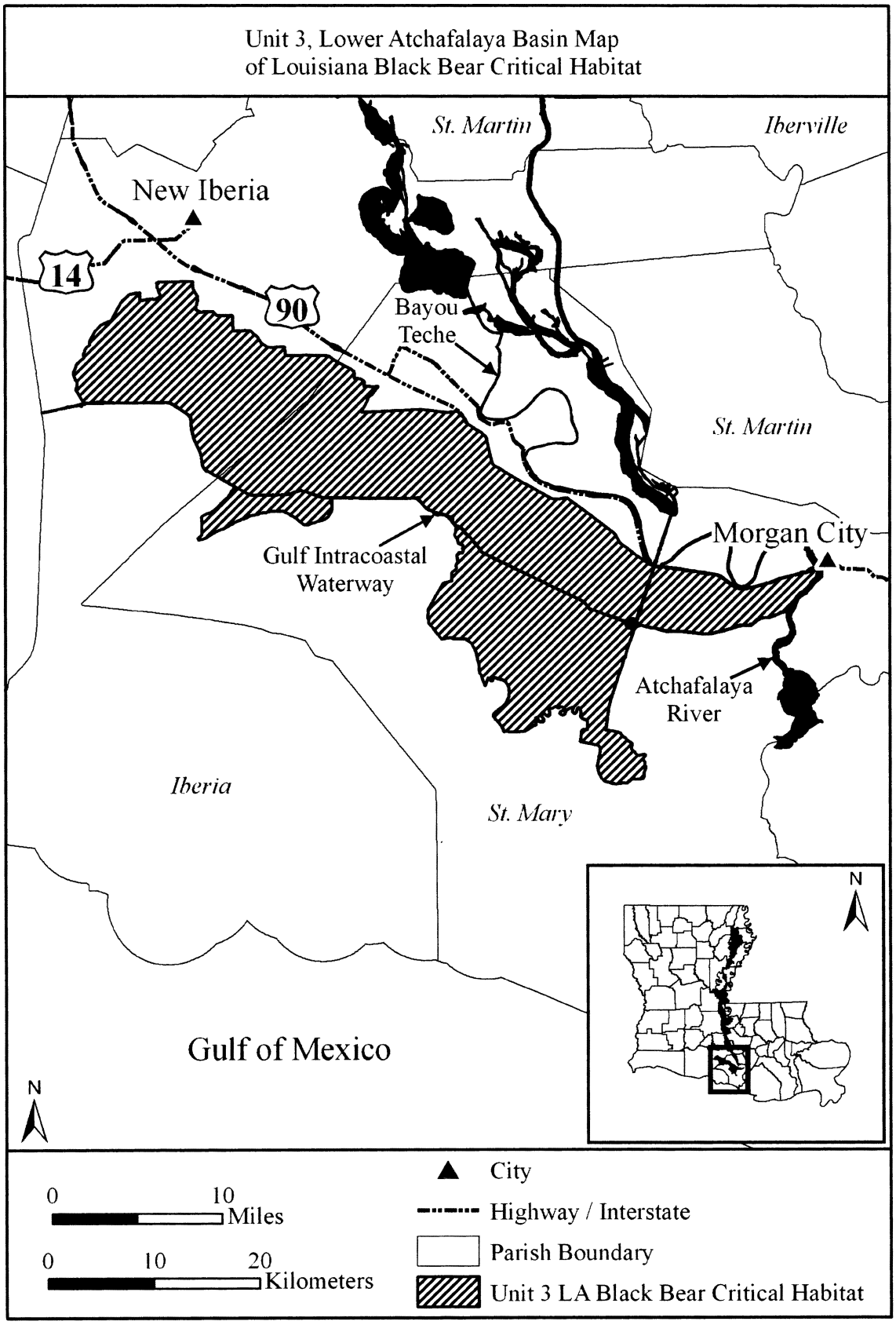
(ii) Map of Unit 3, Lower Atchafalaya River Basin, follows:

BILLING CODE 4310–55–P


Unit 3, Lower Atchafalaya Basin Map
of Louisiana Black Bear Critical Habitat
St. Martin
Iberville
New Iberia
14
90
Bayou
Teche
St. Martin
Morgan City
Gulf Intracoastal
Waterway
Atchafalaya
River
Iberia
St. Mary
Gulf of Mexico
N
N
0
10
Miles
0
10
20
Kilometers
City
Highway / Interstate
Parish Boundary
Unit 3 LA Black Bear Critical Habitat

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Dated: April 24, 2008.

**Lyle Laverty,**

*Assistant Secretary for Fish and Wildlife and Parks.*

[FR Doc. E8–9635 Filed 5–5–08; 8:45 am]

BILLING CODE 4310–55–C

Federal Register

Tuesday,
May 6, 2008

# Part IV

# Department of Agriculture

## Agricultural Marketing Service

**7 CFR Part 1221**

**Sorghum Promotion, Research, and Information Order; Final Rule**

**DEPARTMENT OF AGRICULTURE**

**Agricultural Marketing Service**

**7 CFR Part 1221**

**[Docket No. AMS–LS–07–0056, LS–07–02]**

## Sorghum Promotion, Research, and Information Order

**AGENCY:** Agricultural Marketing Service (AMS), USDA.

**ACTION:** Final rule.

**SUMMARY:** This rule establishes an industry-funded promotion, research, and information program for sorghum, which includes but is not limited to, grain sorghum, sorghum forage, sorghum hay, sorghum haylage, sorghum billets, and sorghum silage. For the purpose of clarity, the term sorghum means all the above mentioned types of sorghum unless specifically identified otherwise. The Sorghum Promotion, Research, and Information Order (Order) is implemented under the authority of the Commodity Promotion, Research, and Information Act of 1996 (Act). The Order will establish a national Sorghum Promotion, Research, and Information Board (Board) comprised initially of 13 sorghum producers. Producers and importers will pay assessments based on the value of the sorghum they produce or import. A referendum will be conducted 3 years after assessments begin to determine if sorghum producers and importers favor the program.

**DATES:** Effective May 7, 2008. Collection of assessments and appropriate reporting will begin on July 1, 2008.

**FOR FURTHER INFORMATION CONTACT:** Kenneth R. Payne, Chief, Marketing Programs Branch; Telephone: (202) 720–1115; Fax: (202) 720–1125, or E-mail *Kenneth.Payne@usda.gov.*

**SUPPLEMENTARY INFORMATION:** This Order is issued pursuant to the Act of 1996 (7 U.S.C. 7411–7425) enacted April 4, 1996, hereafter referred to as the Act. A proposed Order was published November 23, 2007 [72 FR 65842].

### Executive Order 12988

This final rule has been reviewed under Executive Order 12988, Civil Justice Reform. It is not intended to have retroactive effect. Section 524 of the Act provides that the Act shall not affect or preempt any other Federal or State law authorizing promotion or research relating to an agricultural commodity.

Under Section 519 of the Act, a person subject to the Order may file a petition with the Secretary of Agriculture (Secretary) stating that the Order, any provision of the Order, or any obligation imposed in connection with the Order is not established in accordance with the law, and may request a modification of the Order or an exemption from the Order. Any petition filed challenging the Order, any provision of the Order, or any obligation imposed in connection with the Order, shall be filed within 2 years after the effective date of the Order, provision, or obligation subject to challenge in the petition. The petitioner will have the opportunity for a hearing on the petition. Thereafter, the Secretary will issue a ruling on the petition. The Act provides that the district court of the U.S. for any district in which the petitioner resides or conducts business shall have the jurisdiction to review a final ruling on the petition if the petitioner files a complaint for that purpose not later than 20 days after the date of the entry of the Secretary's final ruling.

### Executive Order 13132

This final rule has been reviewed under Executive Order 13132, Federalism. This Order directs agencies to construe, in regulations and otherwise, a Federal statute to preempt State law only when the statute contains an express preemption provision. Section 524 of the Act provides that the Act shall not affect or preempt any other Federal or State law authorizing promotion or research relating to an agricultural commodity.

Six States currently have State-legislated sorghum research and promotion programs. In accordance with the Act, this final rule will not preempt any of these State-legislated programs. Further, section 1221.112(j) of the final Order provides for an annual allocation to State programs based on the State's proportional contribution of total assessments collected by the national sorghum checkoff program.

In 2005 and 2006, representatives of the six State-legislated sorghum promotion programs were among other sorghum industry representatives who met with AMS representatives to discuss the possibility of implementing a national sorghum checkoff program. State program representatives participated in the development of the provisions of the proposed Order during these meetings and through direct communication with the National Sorghum Producers (NSP) during the drafting of its proposal.

Not only were the States informed throughout the development of the national sorghum checkoff program, they were instrumental in the sorghum industry's decision to institute a national sorghum checkoff program. In addition to receiving support from NSP and the U.S. Grains Council, an organization that is dedicated to expanding export opportunities and markets for sorghum and sorghum products, industry and producer organizations from four of the largest grain sorghum production States: Kansas, Nebraska, Texas, and Oklahoma expressed their support for the proposed Order. New Mexico, a producer of grain sorghum and sorghum silage, also expressed support. Within these States, the following organizations indicated their interest in establishing the program: The Texas Grain Sorghum Board; the Texas Grain Sorghum Association; the Kansas Grain Sorghum Producers Association; the Kansas Grain Sorghum Commission; the Nebraska Grain Sorghum Producers Association; the Oklahoma Grain Sorghum Association; and the New Mexico Grain Sorghum Association.

### Executive Order 12866

This final rule has been determined not significant for purposes of Executive Order 12866 and therefore has not been reviewed by the Office of Management and Budget (OMB).

### Regulatory Flexibility Act

In accordance with the Regulatory Flexibility Act (RFA) (5 U.S.C. 601–612), USDA is required to examine the impact of this rule on small entities. The purpose of the RFA is to fit regulatory actions to the scale of businesses subject to such actions so that small businesses will not be disproportionately burdened.

The Act authorizes generic programs of promotion, research, and information for agricultural commodities. Congress found that it is in the national public interest and vital to the welfare of the agricultural economy of the United States to maintain and expand existing markets and develop new markets and uses for agricultural commodities through industry-funded, Government-supervised, commodity promotion programs.

The Order is intended to develop and finance, through assessments, an effective and coordinated program of promotion, research, and information to maintain and expand the markets for sorghum. While the Order will impose certain reporting and recordkeeping requirements on persons subject to the Order, the information required under the Order can generally be compiled from records currently maintained.

Under the Order, first handlers will remit assessments collected from

producers to the Board. First handlers will also be required to keep records and provide information to the Board that it deems necessary. Currently, first handlers already complete and maintain the same or similar information for existing State sorghum and soybean programs, as well as for the Soybean Checkoff Program (7 CFR part 1220). Reporting forms will require the minimum information necessary to fulfill the intent of the Act. Such records and reports will be retained for 2 years beyond the fiscal year of their applicability. First handlers will also be required to make available, to the Secretary, their books and records in order to determine compliance with the Order.

In addition to paying assessments, producers and importers will have a reporting and recordkeeping burden. This burden relates to producers and importers who will seek nomination to serve on the Board, request an organic exemption, request a refund of assessments paid, or vote in a nation-wide referendum. The Order requires producers and importers to keep records and to provide information to the Board or the Secretary when requested and to keep records to qualify for a refund. However, it is not anticipated that producers will be required to regularly submit assessment and other related information to the Board. Information may be obtained through an audit of producers' records to confirm information provided by first handlers or as part of the Board's compliance program.

When seeking nominations to serve on the Board, producers will be required to complete two forms that would be submitted to the Secretary.

Any producer paying assessments may request a refund of assessments paid by submitting an application to the Board. Refunds will be made only if the program is not approved in referendum.

With regard to imports of sorghum, U.S. Customs and Border Protection (Customs) will collect and remit assessments from importers to the Board. Customs will also provide information to the Board regarding the value and volume of imported sorghum, and therefore it is not anticipated that importers will have any regular reporting burden. The Order requires importers to keep records and to provide information to the Board or the Secretary, when requested, and to keep records to qualify for a refund. Information may be obtained through an audit of importers' records to confirm information provided by Customs or as part of the Board's compliance program.

Importers will have similar reporting and recordkeeping requirements as producers concerning nominations to serve on the Board, organic exemptions, refunds of assessments paid, or referendums.

The Small Business Administration (SBA) [13 CFR 121.201] defines small agricultural service businesses as those whose annual receipts are less than $6.5 million. According to the National Agricultural Statistics Service (NASS) 2002 Census of Agriculture, there are 22 grain sorghum producing States and approximately 3,000 wholesale grain merchants who will be considered first handlers under the Order, in these 22 States. By calculating the average values of product sold by grain merchants in each of the 22 grain sorghum producing States, one can determine that 16 States have wholesale grain industries where, on average, the wholesalers each sold in excess of $6.5 million per year. This gives a rough approximation that as many as 73 percent of wholesale grain elevators in grain sorghum producing States may have annual sales in excess of $6.5 million and therefore are determined not to be small businesses.

Based upon data collected from State sorghum boards, NSP estimates that approximately 1,150 first handlers of grain sorghum will be affected. This number represents the number of wholesale grain merchants who buy grain sorghum of the 3,000 wholesale grain merchants approximated. Although State promotion, research, and information programs do not currently exist for sorghum forage, sorghum hay, sorghum haylage, sorghum billets, or sorghum silage, NSP estimates that approximately 700 first handlers of these products will be affected. This was determined through discussions with State sorghum promotions program representatives and State organizations representing sorghum producers. We assume that some of these 700 first handlers will be small businesses.

Under SBA criteria, importers of sorghum are considered agricultural service businesses. The Order defines an importer as a person who imports more than 1,000 bushels of grain sorghum, or 5,000 tons of sorghum forage, sorghum hay, sorghum haylage, sorghum billets, or sorghum silage during a calendar year.

At present, a relatively small amount of grain sorghum is imported into the United States, and the exact number of sorghum importers who will be affected by the proposed Order is not known. It is believed that most grain sorghum imports are related to sorghum seed breeding activities at the present time. For the purpose of this RFA, we therefore will assume that some importers are small businesses.

For 2005, United States International Trade Commission (USITC) database reports indicate that there were 24,549 bushels of grain sorghum imported, valued at $96,800. Based upon 2005 NASS data, this total would equal approximately 0.01 percent of the value of the domestic grain sorghum crop. In 2006, USITC database reports indicate that there were 2,547 bushels of grain sorghum imported, valued at $46,000. Using 2006 NASS data, this would again equal approximately 0.01 percent of the value of the domestic grain sorghum crop. Using data from USITC reports for January—August 2007, the amount of grain sorghum imported is currently 75,497 bushels, valued at $374,000. Based upon NASS projections for the upcoming marketing year, grain sorghum imports would equal approximately 0.02 percent of the value of the 2007 domestic grain sorghum crop.

The SBA defines small agricultural producers as those having annual receipts of not more than $750,000 annually. According to the NASS 2002 Census of Agriculture, the average grain sorghum farm size is 204 acres. The USDA Economic Research Service's (ERS) *Feed Grains Data Base Yearbook Tables* indicate that for 2002 the weighted average farm price for grain sorghum was $2.32 per bushel and that, on average, 50.6 bushels per acre were produced. Based on these figures, the average value of grain sorghum produced would be $23,948. Accordingly, most grain sorghum producers subject to this Order are determined to be small businesses.

Sufficient data are not available to make similar calculations for the burden of assessments on sorghum forage, sorghum hay, sorghum haylage, sorghum billets, sorghum silage and sorghum seed producers. For the purpose of this RFA, we will assume that these producers are small businesses.

ERS' report *Feed Outlook*, August 14, 2007, forecasted grain sorghum production of 475 million bushels in 2007, making it the largest production year since 2001. If this level of production were realized, the proposed Board would collect $9.4 million in assessments on grain sorghum. While ERS does not provide a production forecast for sorghum silage, NASS reports that 4,642,000 tons of sorghum silage was produced in 2006. NASS does not estimate the value of sorghum silage, but at $18 per ton, an estimate provided by NSP, the Board would collect approximately $2.9 million from

sorghum silage. Were production and prices to remain at these record levels, the Board could collect approximately $12.3 million from domestic production of grain and silage sorghum and $2,244 from imported grain sorghum.

An estimate of the grain sorghum assessments that would have been paid by producers in 2002 can be calculated by multiplying the average farm size (204 acres) by the average production (50.6 bushels per acre) by the price received ($2.32 per bushel) by the proposed grain sorghum assessment rate of 6 tenths of one percent of the value of the grain sorghum (0.006). The burden to each farm can be estimated to be approximately $144 for 2002. In this example, the year 2002 was selected because it is the most recent NASS Census of Agriculture reporting farm size.

Sufficient data are not available to make a more accurate forecast of assessment collections on sorghum forage, sorghum hay, sorghum haylage, sorghum billets, and sorghum silage production. In addition to sorghum first handlers, importers, and producers, there are other entities affected by the Order. State, regional and national organizations representing sorghum producers and importers will have a role in the Order. There will be some burden on producer organizations that want to participate in the program by becoming certified to make nominations to the Board. USDA estimates that two organizations within each State will request certification.

Shortly after the effective date of this Order, USDA will publish a notice in the **Federal Register** announcing that it will accept applications for certification of organizations to participate in the nomination of Board members pursuant to criteria in section 1221.107. Certified organizations will be required to re-submit applications for certification periodically. It is anticipated that this will occur every 5 years.

Additionally, there will be a burden on State sorghum producer organizations requesting qualification by the Secretary to receive funding from the Board pursuant to section 1221.112(j). Only one organization within each State will be qualified by the Secretary to receive funding from the Board, and preference will be given to existing State legislated sorghum promotion organizations. Organizations will be required to submit an application for qualification to the Secretary pursuant to section 1221.128. It is estimated that one organization will be qualified per State although it is not required that each State have a qualified organization. Qualified organizations receiving funding through the Order will be required to re-submit applications for qualification periodically. It is anticipated that this will occur every 5 years.

While the exact number of certified and qualified organizations is not known, nonetheless their membership, to a great extent, are producers who are largely small entities, and, when applicable, importers who we assume some of which are small entities.

The Act provides authority to tailor a program according to the individual needs of an industry. Section 514 of the Act provides for orders applicable to producers, first handlers, and other persons in the marketing chain as appropriate. Provision is made for permissive terms in an order in Section 516 of the Act and authorizes an order to provide for coverage of research, promotion, and information activities to expand, improve, or make more efficient the marketing or use of an agricultural commodity in both domestic and foreign markets; provision for reserve funds; and provision for credits for generic and branded activities. In addition, Section 518 of the Act provides for a referendum to ascertain approval of an order to be conducted either prior to its going into effect or within 3 years after assessments first begin under the order. An order also may provide for its approval in a referendum to be based upon (1) a majority of those persons voting; (2) persons voting for approval who represent a majority of the volume of the agricultural commodity; or (3) a majority of those persons voting for approval who also represent a majority of the volume of the agricultural commodity. Section 515 of the Act provides for establishment of a board from among producers, first handlers, and others in the marketing chain as appropriate.

This Order includes provisions for a delayed referendum. Approval will be based upon the majority of those persons voting for approval who were engaged in the production or importation of sorghum during the representative period established by the Secretary.

We have not identified any relevant Federal rules that are currently in effect that duplicate, overlap, or conflict with this rule.

**Paperwork Reduction Act**

In accordance with OMB regulation (5 CFR part 1320) that implements the Paperwork Reduction Act of 1995 (44 U.S.C. Chapter 35) (PRA), AMS has submitted to OMB a new information collection that has been assigned OMB control number 0581–0246.

*Abstract:* The information collection requirements in the request are essential to carry out the intent of the Act.

Under the Order, first handlers will be required to collect assessments from producers, file reports with, and submit assessments to the Board. While the Order will impose certain recordkeeping requirements on first handlers, information required under the Order can be compiled from records currently maintained. Such records must be retained for at least 2 years beyond the marketing year of their applicability. Each first handler will be responsible for the collection of assessments and remittance of the assessments to the Board. It is anticipated that the bulk of assessments will be submitted to the Board by first handlers who purchase sorghum. A producer will be considered a first handler when that person markets sorghum of their own production directly to a consumer.

The Order's provisions have been carefully reviewed, and every effort has been made to minimize any unnecessary recordkeeping costs or requirements.

The forms on which information is to be collected require the minimum information necessary to effectively carry out the requirements of the Order. Such information can be supplied without data processing equipment or outside technical expertise. In addition, there are no additional training requirements for individuals filling out reports and remitting assessments to the Board. The forms are designed to be simple and easy to understand and place as small a burden as possible on the person required to file the information.

The timing and frequency of collecting information are intended to meet the needs of the industry, while minimizing the amount of work necessary to fill out the required reports. In addition, the information to be included on these forms is not available from other sources because such information relates specifically to individual producers and first handlers who are subject to the provisions of the Act. Therefore, there is no practical method for collecting the required information without the use of these forms.

For the purpose of estimating the cost of reporting and recordkeeping, $18.55 is used, which is the mean hourly earnings of first line supervisors and managers of farming, fishing, and forestry workers as obtained from the U.S. Department of Labor Bureau of Labor Statistics National Compensation Survey of Occupational Wages.

Information collection requirements include:

*(1) Background Information Form (OMB Form No. 0505–0001).*

*Estimate of Burden:* Public reporting for this collection of information is estimated to average 0.5 hours per response for each producer or importer nominated to serve on the Board.

*Respondents:* Producers and importers.

*Estimated Number of Respondents:* (26 for initial nominations to the Board, 8 in the second year, 10 in the third year, and 8 in the fourth year, sequencing 8, 10 and 8 annually, thereafter).

*Estimated Number of Responses per Respondent:* 0.33.

*Estimated Total Annual Burden on Respondents:* 4.29 hours for the initial nominations to the Sorghum Board and sequencing 1.3, 1.6, and 1.3 annually thereafter.

*Total Cost:* (Number of respondents × responses per respondent × $18.55) $79.58 initial, and sequencing $24.12, $29.68, and $24.12 annually thereafter.

(2) *Requirement to Maintain Records Sufficient to Verify Reports Submitted Under the Order.*

*Estimate of Burden:* Public recordkeeping burden for keeping this information is estimated to average 0.1 hour per record keeper maintaining such records.

*Recordkeepers:* Producers, importers, and first handlers.

*Estimated Number of Recordkeepers:* 35,050.

*Estimated Total Recordkeeping Hours:* (Number of recordkeepers × 0.1 hours) 3,502 hours.

*Total Cost:* (Number of record keepers × 0.1 hour per record keeper × $18.55) $64,962.

(3) *Remittance Form by Each First Handler.*

*Estimate of Burden:* Public reporting burden for this collection of information is estimated to average 0.25 hour per first handler.

*Respondents:* First handlers.

*Estimated Number of Respondents:* (1,150 first handlers of grain plus 700 first handlers of silage and hay) 1,850.

*Estimated Number of Responses per Respondent:* 12.

*Estimated Total Annual Burden on Respondents:* (Number of first handlers × total number of reports × 0.25 hour per report) 5,550 hours.

*Total Cost:* (5,550 hours × $18.55) $102,952.50.

(4) *Application for Refund Form.*

*Estimate of Burden:* Public reporting burden for this collection of information is estimated to average 0.167 hour per response.

*Respondents:* Producers and importers.

*Estimated Number of Respondents:* (25 percent of 33,200 total producers) 8,300.

*Estimated Number of Responses per Respondent:* 6.

*Estimated Total Annual Burden:* (8,300 producers × 6 reports per year × 0.167 hour per report) 8,317 hours.

*Total Cost:* (8,317 hours × $18.55) $154,280.

(5) *Application for Certification of Organizations.*

*Estimate of Burden:* Public reporting burden for this collection of information is estimated to average 0.5 hour per response.

*Respondents:* National, State, or regional sorghum associations or organizations.

*Estimated Number of Respondents:* (Two organizations certified in each of 22 sorghum producing States) 44.

*Estimated Number of Responses per Respondent:* (Estimating recertification every 5 years) 0.2.

*Estimated Total Annual Burden:* (44 organizations × 0.2 responses × 0.5 hour per response) 4.4 hours.

*Total Cost:* (4.4 hours × $18.55) $81.62.

(6) *Application for Qualification of Organizations.*

*Estimate of Burden:* Public reporting burden for this collection of information is estimated to average 0.5 hour per response.

*Respondents:* State associations or organizations.

*Estimated Number of Respondents:* (1 organization certified in each of 22 sorghum producing States) 22.

*Estimated Number of Responses per Respondent:* (Estimating requalification every 5 years) 0.2.

*Estimated Total Annual Burden:* (22 organizations × 0.2 responses × 0.5 hour per response) 2.2 hours.

*Total Cost:* $40.81.

(7) *Nominations for Appointments to the Sorghum Board Form.*

*Estimate of Burden:* Public reporting burden for this collection of information is estimated to average 0.5 hour per response.

*Respondents:* National, State, or regional sorghum associations and organizations.

*Estimated Number of Respondents:* (Certified organizations) 22.

*Estimated Number of Responses per Respondent:* one per year.

*Estimated Total Annual Burden:* (22 organizations × 1 response × 0.5 hour per response) 11 hours.

*Total Cost:* (11 hours × $18.55) $204.

(8) *Organic Exemption Form.*

*Estimate of Burden:* Public recordkeeping burden for this collection of information is estimated to average 0.5 hour per exemption form.

*Respondents:* Producers and importers.

*Estimated Number of Respondents:* 10.

*Estimated Number of Responses per Respondent:* (Annual exemption application required) 1.0.

*Estimated Total Annual Burden on Respondents:* 5.0 hour.

*Total Cost:* (5 hours × $18.55) $92.75.

(9) *Referendum Ballot.*

*Estimate of Burden:* Public recordkeeping burden for this collection of information is estimated to average 0.1 hour per referendum ballot.

*Respondents:* Producers and importers.

*Estimated Number of Respondents:* 8,300.

*Estimated Number of Responses per Respondent:* (Estimating referendums every 5 years) 0.2.

*Estimated Total Annual Burden on Respondents:* 166 hours.

*Total Cost:* (166 hours × $18.55) $3,079.30.

In the proposed rule published November 23, 2007, [72 FR 65842] comments were invited on: (a) Whether the proposed collection of information is necessary for the proper performance of functions of the proposed Order and the USDA's oversight of the program, including whether the information will have practical utility; (b) the accuracy of USDA's estimate of the burden of the proposed collection of information, including the validity of the methodology and assumption used; (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 those who are to respond, including the use of appropriate automated, electronic, mechanical, or other technological collection techniques or other forms of information technology.

No separate comments were received regarding the information collection section. However, one comment was received concerning recordkeeping and is discussed in the comment section.

## Background

NSP submitted a draft Order to USDA on December 28, 2006, along with letters of support from nine industry organizations. These letters represented producer organizations from five sorghum producing States, NSP, and the U.S. Grains Council.

According to NSP, a national promotion, sorghum checkoff program will allow the industry to address a number of production and marketing problems it currently faces. Three main

problems currently affecting sorghum producers are as follows: Lack of yield improvement and technology; aggressive market competition; and lagging ethanol research. The sorghum industry has declined in recent years in both production and acreage.

State grain sorghum promotion, research, and information programs currently exist in Kansas, Texas, Nebraska, Oklahoma, Louisiana, and Arkansas. These promotion, research, and information programs are based on volumetric assessments, so as volumes of grain sorghum change, so do the promotion, research, and information assessments. This variability leads to sporadic research funding. Also, State programs cannot generate a sufficient scale of funding to effectuate large coordinated research programs.

The national sorghum checkoff program addresses both of these concerns.

The assessment provisions of the Order are based on value, so variability of funding will lessen. Also, the revenue generated by a national sorghum checkoff program is anticipated to reach levels that can adequately fund large coordinated research programs in sorghum.

The proponent requested that the implementation referendum be conducted within 3 years after assessments begin, which is consistent with the provisions of the Act. Approval will be based upon a majority of eligible persons voting for approval who have engaged in the production or importation of sorghum during the representative period established by the Secretary.

The program will be administered by a 13-member Board appointed by the Secretary from industry nominations. The Board will recommend to the Secretary the assessment rate, programs and projects, budgets, and any rules and regulations that might be necessary for the administration of the program. The Board will consist of five producers nominated from the State with the largest production, three from the State with the second largest production, one from the State with the third largest production, and four producers to serve as at-large representatives, among which two representatives are appointed from States other than the top three sorghum producing States.

Importers will be entitled to one seat if the value of assessments collected on imported sorghum reaches or exceeds the production of the State with the third largest sorghum production. Currently, imports of grain sorghum are very limited and not at a value that would trigger the provision of appointing an importer representative to serve on the Board. For example, Nebraska was the third largest producer of grain sorghum in 2006 at approximately 19,200,000 bushels. Imports of grain sorghum in 2006, according to USITC data, were 2,547 bushels.

For the purpose of establishing the initial Board, USDA grain sorghum production data will be used to determine the top three grain sorghum producing States. Section 515(3) of the Act provides for periodic reapportionment of the Board. The Act provides that at least once every 5 years, but not more frequently than once every 3 years the Board shall review the geographical distribution of the production of the agricultural commodity covered by the Order including the quantity or value. If warranted, the Board will recommend reapportionment of the Board membership.

The key to understanding reapportionment in the Order is the definition of production. For the purpose of reapportionment under Section 1221.100 of the Order, production means the total assessments collected by the Board during the last 5 crop years, excluding the high and low years.

Section 1221.100(f) of the Order specifically uses the term production and does not refer to a quantity such as ''bushels'' harvested per acre. The intent of this is to use assessment collections as the basis for reapportionment.

The Order uses this definition since it best accounts for the difference in geographic regions found in the sorghum belt where sorghum prices vary widely. Furthermore, NASS does not report pricing for sorghum forage, sorghum hay, sorghum haylage, sorghum billets, and sorghum silage, so the Board assessment records will provide a method to track the value of all types of sorghum. Using the assessment collections will permit the Board to analyze sorghum production in a consistent manner and base reapportionment decisions on a value as provided for in the Act.

The Order establishes an assessment in section 1221.116 that will be paid by sorghum producers and importers. The assessment will be collected and remitted to the Board by first handlers. The term producer is defined in the proposal as any person who is engaged in the production and sale of sorghum in the United States and who owns or shares the ownership and risk of loss of the sorghum.

Importer is defined as any person importing more than 1,000 bushels of grain sorghum; or 5,000 tons of sorghum forage, sorghum hay, sorghum haylage, sorghum billets, or sorghum silage into the United States in a calendar year as a principal or as an agent, broker, or consignee of any person who produces or purchases sorghum outside of the United States for sale in the United States, and who is listed as the importer of record for such sorghum. First handler is defined as the first person who buys or takes possession (excluding a common or contract carrier of sorghum owned by another) of more than 1,000 bushels of grain sorghum; or 5,000 tons of sorghum forage, sorghum hay, sorghum haylage, sorghum billets, or sorghum silage from producers in a calendar year for marketing. The term first handler includes a producer who markets sorghum of the producer's own production directly to consumers. It may also mean the Commodity Credit Corporation (CCC) in any case in which sorghum is pledged as collateral for a loan issued under any CCC price support loan program and the sorghum is forfeited by the producer in lieu of loan repayment.

The definition of first handler is constructed so that any commercial grain elevator will meet the requirement of the definition by buying more than the minimum amount of grain sorghum in a calendar year and therefore will assess all grain sorghum purchased. The definition of first handler is designed to exclude small cattle feeding operations and dairies that would buy less than 1,000 bushels of grain sorghum or 5,000 tons of sorghum forage, sorghum hay, sorghum haylage, sorghum billets, or sorghum silage. The Order does not have a *de minimis* clause applicable to producers, but it does define first handler and importer in a way as to exclude very small entities.

As mentioned above, the approximately 1,850 first handlers of sorghum will collect and remit assessments to the Board. First handlers will remit assessments to the Board on a monthly basis along with a report detailing the volume of sorghum on which assessments were collected as well as identifying the State in which the sorghum was produced. Information regarding the origin of the sorghum's production is necessary so that the Board can make recommendations to USDA regarding reapportionment of its membership.

Section 1221.119 of the Order provides for refunds. Any producer or importer from whom an assessment is collected and remitted to the Board, or who pays an assessment directly to the Board, through the announcement of the results of the implementing referendum,

upon failure of the referendum will then have the right to receive from the Board a refund of assessments paid. Any producer or importer requesting a refund will be required to submit an application on the prescribed form to the Board within 60 days from the date the assessments were paid by such producer or importer, but no later than the date the results of the required referendum are announced by the Secretary. Section 1221.112(j) provides for an allocation of a portion of all assessments collected to be made available to qualified State sorghum producer organizations. Each year the Board will establish an allocation amount of no less than 15 percent but no more than 25 percent of the total assessments collected on all sorghum available for any fiscal period, less the expenses incurred by the Secretary for administration and supervision of the Order. The funds can be made available for use by qualified sorghum producer organizations pursuant to section 1221.128 for State programs of generic promotion, research, and information. Amounts allocated by the Board for State generic promotion, research, and information programs will be based on requests submitted to the Board by qualified sorghum producer organizations. An important aspect of the availability of an allocation to a qualified State organization is that the organization will not automatically receive a 15–25 percent allocation. Each year the qualified organizations will have to submit requests for the funds, which can be for no more than their allocated amount. A detailed plan describing projects with budgets would be a part of this request to demonstrate that the allocation will be used in a way consistent with the Act and Order.

An example of how an allocation amount could be determined is as follows:

A particular qualified State organization contributes 40 percent of the total assessments collected by the Board for the previous annual fiscal period. Total assessments collected less the USDA expenses for the previous fiscal period were $12,300,000. The Board has set the allocation amount at 25 percent. The qualified organization representing that State may submit requests up to $1,230,000 ($12,300,000 × 40 percent × 25 percent).

The Order provides for exemptions from assessments under specific conditions. Any importer of less than and including 1,000 bushels of grain sorghum; or 5,000 tons of sorghum forage, sorghum hay, sorghum haylage, sorghum billets, or sorghum silage per calendar year may claim an exemption from the assessment required under section 1221.116. An importer desiring an exemption must apply to the Board for a certificate of exemption and certify that the importer will import less than the above stated quantities of sorghum. The Board will then issue a certificate of exemption and the importers who receive a certificate of exemption will be eligible for reimbursement of assessments collected by Customs. The Board may require persons receiving an exemption from assessments to provide to the Board reports on the disposition of exempt sorghum and, in the case of importers, proof of payment of assessments.

A producer or importer who operates under an approved National Organic Program (NOP) (7 CFR part 205) system plan; produces only products that are eligible to be labeled as 100 percent organic under the NOP may be exempt from the payment of assessments. The producer or importer must submit a request to the Board annually as long as the producer continues to be eligible for the exemption.

The Order is summarized as follows: Sections 1221.1 through 1221.32 of the Order define certain terms such as producer, handler, and importer which are used in the Order.

Sections 1221.100 through 1221.111 include provisions relating to the Board. These provisions cover establishment and membership, nominations nominee's agreement to serve, appointment, term of office, vacancies, removal, certification of organizations, procedure, compensation and reimbursement, powers and duties, and prohibited activities.

Section 1221.112 through 1221.120 covers expenses and assessments. Sections 1221.112 through 1221.115 include provisions relating to budget and expenses, financial statements, operating reserve, and investment of funds. Section 1221.116 through 1221.120 include provisions related to assessments and specify assessment rates, and the imposition of late payment charges. Also included are provisions for exemptions, refund, escrow accounts, refunds, and procedures for obtaining a refund. Section 1221.116 was changed by AMS in the proposed rule to specify that if Customs does not collect an assessment from an importer, the importer is responsible for paying the assessment to the Board.

Section 1221.221 through 1221.223 covers programs, plans, and projects detailing the types of activities to be engaged by the Board. Also covered are provisions for an independent evaluation and the protection of patents, copyrights, inventions, trademarks, information, publications, and product formulations derived from assessment funded activities.

Section 1221.124 through 1221.127 includes provisions for reporting requirements on first handlers and importers; books and records; use of information; and the confidential treatment of all personally identifiable information obtained from books and records of persons subject to the Order.

Section 1221.128 covers the qualification by the Secretary of State organizations that would be eligible to receive funding from the Board. Section 1221.128 was changed by AMS in the proposed rule by adding paragraph (e) to express the primary considerations in determining the qualification of an organization to receive funding.

Sections 1221.129 through 1221.138 discusses the rights of the Secretary; referenda; suspension or termination; proceeding after termination; effects of termination or amendment; personal liability; separability; amendments; rules and regulations; and OMB numbers.

The changes suggested by the commenters are discussed below, along with changes made by USDA upon further review. Also, USDA has made other miscellaneous changes for the purpose of clarity and accuracy. For the readers' convenience, the discussion of comments is organized by topic headings.

**Comments**

USDA published a proposed Order on November 23, 2007 [72 FR 65849] with a request for comments on the proposal to be received by January 22, 2008. USDA received 215 timely comments on the proposed Order. Five comments were received after the close of the comment period. No new issues were raised by these comments. Twenty-three of the comments were from State and national organizations representing producers or providing agricultural related services from the States of Arkansas, Nebraska, Kansas, Texas, Oklahoma, and Colorado. One of these organizations represents itself as the largest importer of sorghum into the United States. Five of these organizations submitted comments in opposition to the proposed Order. One hundred sixty-seven comments were submitted by producers in support of the proposed Order from the States of Arkansas, Colorado, Kansas, Texas, New Mexico, South Dakota, Nebraska, and Missouri. Twenty-two producers submitted comments opposing the proposal in part or in whole.

*Supporting Comments*

One hundred thirty-seven comments identified the pooling of resources as a significant benefit of a national mandatory sorghum checkoff program. Several of these comments cited the Soybean and Cotton Checkoff programs as successful farmer funded self-help programs that have contributed substantially to the benefit of their respective industries. These comments stressed that for sorghum to remain a viable rotation crop, a national sorghum checkoff program must be implemented.

Some comments addressed funded research as a resulting benefit of establishing a national mandatory sorghum checkoff program.

Eight comments, in support of the proposal, specifically identified the proposed funding allocation to States as an appropriate way to help support State level research and promotion initiatives while emphasizing the financial strength of a national sorghum checkoff program.

One hundred twelve comments, in support of the proposal, identified weed control as an area where a national sorghum checkoff program could fund major research. Comments from producers and large and small production States specifically mentioned shatter cane and other grasses as important areas of weed control research that could be performed by the national sorghum checkoff program.

Sixty-four comments addressed the need for national level research relating to the development of cellulosic ethanol production. These comments were submitted by producers of both grain and forage type sorghums.

Sixty-eight comments suggested that research into improving sorghum yields has been historically underfunded, especially when compared to the tremendous amount of resources devoted by private companies into corn and soybean yield research. These comments were submitted by producers from large and small production States.

Twenty comments specifically mentioned that a national sorghum checkoff program could more effectively fund sorghum breeding and genetics programs. Some of these comments suggested that improved varieties would encourage greater planted acreage and production, which would expand and stabilize sorghum markets.

Twenty-six comments, in favor of the proposal, specifically mentioned that a national sorghum checkoff program could address the issues of developing new markets, domestic and foreign, for grain sorghum.

*Assessment Rate Cap*

Seventy-two supporting comments recommended changing text in section 1221.116, Assessments, to clarify that the assessment rates on grain and silage may not be raised above a cap of 1 percent. These comments suggest changing the text in section 1221.116 so that the maximum modification of the assessment rate would be 0.4 percent of net market value in 1221.116(c)(1) and 0.65 percent of net market value in 1221.116(c)(2). This would cap the assessment rates for all sorghum at 1 percent of net market value. We agree that a clarification is appropriate. However, USDA has changed section 1221.116(c)(1), section 1221.116(c)(2), and section 1221.116(e) so that the Order reflects the intent of the original submission by the proponent. The cap for the assessment rates at 1 percent of the net market value will appear only in section 1221.116(e). Further, any change in the assessment rates must be promulgated through regulations approved by the Secretary.

*Other Changes for Consistency With NSP Submission*

Several supportive commenters recommended five changes to the regulatory text in the Order to make the text consistent with the intent of the original submission of the proponent and to correct miscellaneous grammatical errors.

The comments recommended changing 1221.104(c)(5) by adding ''at large national representatives shall also have their staggered terms assigned by the Secretary''; removing an unnecessary semicolon from 1221.117; correcting a section reference in 1221.123 from 1221.131 to 1221.132; changing an ''or'' to ''and'' in 1221.130(b)(3) so that a petition for a referendum would require 10 percent of eligible producers and importers (A similar change was also supported by an organization that opposes the proposal); adding ''and Importers'' to 1221.130(c) to reflect that both producers and importers, who are eligible, may vote in referendums. These changes have merit and have been made in the final rule.

*Opposing Comments*

Twenty-two comments from producers and five comments from organizations were submitted opposing the implementation of the proposal or portions thereof. A number of topics were discussed.

*Board Membership*

Five organizations, opposing the proposal, submitted comments regarding Board membership and asserted that the proposed Board structure favors the largest production States. Further, that the largest production State would control 40 percent of the Board's membership. They believe that this would allow the largest production States to influence the spending of resources for promotion and research to the exclusion of small production States.

One commenter suggested that as an alternative to creating a national sorghum checkoff program, the sorghum industry should continue under the current system of State legislated and voluntary State level sorghum checkoff programs and be encouraged to establish a coordinating checkoff board comprised of State programs.

One commenter recommended adoption of a method of apportionment that would prevent any State from having more than 25 percent of Board seats. One commenter noted that the Board would have broad powers under 1221.112 and 1221.116 and that the interest of small production States would not be represented under the proposed Board structure.

To address this issue, the apportionment method suggested by the commenter distributes Board seats using a combination of representation assigned to the top five production States and dividing the remainder of sorghum production areas into four regions. States and regions would then be allotted representation based on the value production. States or regions with production valued at less than $75 million would get one member. States of regions with production valued between $75 million and $225 million would receive two members, and States or regions with production valued above $225 million would receive three members. Importers would receive membership using the same criteria based on the value of imported product. Under this system the size of the Board would expand and contract as acreage and crop prices change, and a five year average of crop value would be calculated annually to determine Board membership.

Other commenters reviewed this alternative representation mechanism and offered comments regarding its merits. These comments noted that under the alternative representation mechanism, the number of Board members would continue to increase as sorghum production increases thus potentially leading to an overly large board and increased administrative costs associated with travel and Board meetings. These commenters also suggested that the alternative representation plan does not

substantially contribute to minimizing majority membership for the largest production States.

The alternative apportionment method suggested by the commenter is significantly different from the proposal and has not been subject to public comment. Nonetheless, USDA believes that a board comprised of 13 members is an appropriate and reasonable size for the anticipated revenue of the national sorghum checkoff program. Further, based on review of the comments, grain sorghum production is heavily concentrated in three States. Based on 2007 NASS production data, three States account for 79 percent of the total United States production. Therefore, USDA believes it reasonable to have Board representation reflect this production. Additionally, under the representation mechanism proposed in the Order, certified organizations are responsible for the submission of qualified nominees from all geographic areas to fill at-large positions for nomination and appointment to the Board by the Secretary. Also, representation on the Board will be reviewed at least once every five years and the Board may recommend to the Secretary that representation be altered to reflect any change in geographical distribution of domestic sorghum production. Sorghum imported into the United States will also be reviewed. Board members are appointed by the Secretary and are expected to make decisions that would benefit the entire sorghum industry. Therefore, USDA is finalizing this section as proposed.

*Allocation of Assessments to States*

Several opposing commenters stated that the ''pass-back'' allocation (section 1221.112(j) is too small and recommended an increase to 50 percent citing the Beef Promotion and Research Order and the Soybean Promotion, Research, and Consumer Information Order as examples. Other commenters suggested that the funding allocation should be automatically provided to States at 50 percent. Several commenters asserted that the proposal's funding allocation provision will not provide adequate funding to maintain State checkoff programs given different research needs in small production States. Several of these opposing commenters suggested that research needs are different in small production States because grain sorghum utilization varies among small States. They asserted that small production States are interested in weed control research and verification and not interested in breeding programs or ethanol research. Further, they stated that without proper representation on the Board, combined with loss of individual assessment funding, they believed research vital to their interest will go unfunded. They contended, their assessments would go to fund research that would not benefit small production States, and university researchers in small production States would lose funding. They noted that other national programs, such as the Soybean Promotion, Research, and Consumer Information Order in particular, have implemented programs that left State programs at least as well off after implementation of the national program.

As previously noted, eight comments, in support of the proposal, specifically identified the proposed funding allocation to States as an appropriate way to help support State level research and promotion initiatives while emphasizing the financial strength of a national sorghum checkoff program.

Seven supportive commenters rebutted these comments opposed to the proposed State funding allocation. Several of the supporting commenters noted that the State funding allocation was not intended to be a funding mechanism for State checkoff boards but, rather a method to fund promotion and research initiatives specific to States that are not currently addressed by national promotion and research initiatives. Some commenters noted that, currently, State checkoffs are responsible for costs associated with collecting assessments while under the proposal they would have no such costs because the national Board would collect assessments. These commenters suggested that, in addition to the State funding allocation, these qualified State programs could apply for and receive additional funding from the Board on a project-by-project basis.

One supportive commenter responding to the opposing comments on State funding allocation stated that the commenter had visited personally with a number of university researchers regarding the State funding allocation. This commenter stated that these researchers had no reservation competing on a national level for research funding and that in doing so felt that the research proposals with the most merit would rise to priority and receive funding. Other supportive commenters noted that while the Beef Promotion and Research Order and the Soybean Promotion, Research, and Consumer Information Order retain 50 percent of assessments, other checkoffs do not.

The Lamb Promotion, Research, and Information Order and Blueberry Promotion, Research, and Information Order provide no funding allocation back to States. The Cotton Research and Promotion Order, the oldest program, passes back 5 percent to States and the Peanut Promotion, Research, and Information Order currently returns 20 percent to States. The National Pork Promotion, Research, and Consumer Information Order, on average, returns about 16 percent to States.

While several existing national checkoff programs provide varying degrees of funding to State research, promotion, and information efforts, some of these programs have percentages established by statute while other programs have percentages established in their order's provisions. The proposed Order provided for an annual allocation to State programs based on a State's proportional contribution of total assessments collected by the national sorghum checkoff program. The allocation amount would be no less than 15 percent but no more than 25 percent of total assessments collected. We believe that the provision provides for a reasonable allocation for State generic programs while maintaining an appropriate level of funding for the national program. Also, a 50 percent funding allocation should be subject to public comment. Further, the national program does not preempt existing State checkoff programs. Thus, States are not precluded from establishing or continuing a State checkoff program in addition to a national sorghum checkoff Program. Accordingly, these suggestions are not adopted.

*Referendum*

A number of opposing commenters stated they were against a delayed referendum. Some commenters cited their organization's policies that state that commodity checkoff programs should be approved by producer referendum prior to implementation or change of a program. Other commenters suggested that no one should be subject to assessment without the opportunity to vote in a referendum beforehand.

A number of supporting commenters reviewed the opposing comments regarding the delayed referendum and submitted additional comments. These commenters stated that accurately identifying all sorghum producers who would be eligible to vote in the referendum is not possible prior to the collection of assessments, thereby making it impractical to conduct an up-front referendum. Other commenters cited that it would be problematic and impractical to conduct an up-front referendum due to the significant expense of a referendum when there are

no funds available to reimburse USDA for the expense.

Section 518 of the Act provides for both required referenda and optional referenda for determining whether persons covered by an order favor the order. The Act provides for an optional referendum procedure that authorizes an up-front referendum for which, USDA has historically required the proponent industry to post a bond well in advance of an order's effective date to cover all costs associated with development of an order as well as referendum expenses.

The Act allows for a referendum to be conducted up to three years after the effective date of the Order. This allows all persons subject to the Order a sufficient amount of time to observe the management and functioning of the new program before making a decision regarding its continuation. Further, the Order provides an opportunity to request and receive a refund of assessments if the initial referendum fails. Accordingly, USDA is finalizing the Order with the delayed referendum requirement. Prior to the referendum, USDA will issue regulations for public comment regarding the process in which the referendum will be conducted.

*First Handlers*

A number of comments and requests for clarification were made regarding first handlers and their role in the sorghum promotion, research, and information program. Among the topics raised were: Reimbursement payments to first handlers for cost associated with collections; economic impact analysis; redefining first handlers; recording the State of origin of sorghum; first handler representation on the Board; clarifying the time of assessment collection; and clarification of the date of sale.

*Payments to First Handlers*

A commenter stated the commenter's belief that first handlers would bear the burden of implementing the checkoff and, therefore requested that USDA consider reimbursing first handlers up to 10 percent of sorghum checkoff assessments collected to offset the direct costs incurred in collecting, submitting, and maintaining records for the national sorghum promotion, research, and information program. While first handlers are subject to the Order, the Act does not provide for such reimbursement of administrative expenses to first handlers or anyone else in the marketing chain. Accordingly, USDA does not accept this proposed change.

*Definition of First Handler*

A commenter suggested that the definition of first handler be changed because 1,000 bushels is too low of a limit to exclude a handler from their obligation to pay the assessment. This commenter also suggested that grain buyers may not know at the beginning of the year how much sorghum they will buy, thus placing them in the position of either refunding assessments if they don't reach the 1,000 bushel limit or assessing after-the-fact once they reach the trigger. Either way, the commenter suggested, that this would cause an undue burden on the handler.

We disagree. The definition of first handler is constructed so that every commercial grain elevator, under current industry practices, would exceed the threshold since they typically buy more than the minimum threshold amount of sorghum in a calendar year. Therefore, all sorghum purchased by first handlers would be assessed.

The definition of first handler is designed to exclude small cattle feeding operations and dairies that would buy less than 1,000 bushels of grain sorghum or 5,000 tons of sorghum forage, sorghum hay, sorghum haylage, sorghum billets, or sorghum silage. According to NASS data, the average U.S. sorghum production in 2007 was 74.2 bushels per acre. Any commercial grain elevator that purchases 13.5 acres of sorghum will have met the definition. According to the NASS' 2002 Census of Agriculture, the average grain sorghum farm size was 204 acres. If a commercial grain elevator has even one grain sorghum producing customer, they would likely meet the limit more than 15 times over. Accordingly, USDA believes that the 1,000 bushel limit is appropriate and will not burden commercial grain buyers. Accordingly, this suggestion to change the definition of first handler is not adopted.

*State of Origin of Sorghum*

A commenter suggested that the requirement for first handlers to keep records of the State of Origin of their sorghum purchases is a burden that is not part of their regular course of business. This requirement is essential to the Board's determination of representation, which is based on assessment collections for each State. The information is also needed in identifying the appropriate State to receive funding allocations. A similar requirement is part of the Soybean Promotion, Research, and Consumer Information Order's recordkeeping requirements as well as other State programs and has not proven to be a substantial burden. The burden estimated under this program is minimal and necessary for carrying out the provisions of the Order. Accordingly, this comment is not adopted.

*First Handler Representation on Board*

A commenter criticized the lack of representation of first handlers on the Board stating that first handlers deserved representation because of the disproportionate economic impact they will incur as a result of implementing the checkoff. We disagree. The program's effect on first handlers is not unreasonable. Further, the representation provisions of the Order are appropriate as they afford representation to those persons who pay the assessments. Accordingly, this comment is not adopted.

*Time of Assessment Collection*

A commenter asked for clarification of the term handled as it relates to the timing of the assessment collection. While the collection of assessments is on handled sorghum the assessment occurs at the time the producer sells the sorghum and the net market value is established. Also, the commenter suggested that the wording of section 1221.124(1) be changed to clarify that records would only be required for sorghum bushels on which assessments have been collected. We disagree. The information required in subparagraph (a)(1) is needed by the Board to carry out its responsibilities under the Order. Accordingly, no change is made as a result of this comment.

*Date of Sale*

A commenter asked for clarification of the date of sale. The commenter suggested that in the context of the grain trade, a better term might be date of settlement which would reflect the date when the assessment is deducted from the producer's payment in fulfillment of a contract. USDA believes that this comment has merit, but also believes that a more appropriate term would be date on which assessments were paid. *Therefore, USDA is changing 1221.125(b)(5) to read as follows:* ''(5) date on which assessments were paid; and''. Further, this change makes the term consistent with 1221.124(4). The commenter also suggested making a similar change in section 1221.116. However, USDA does not believe any change is necessary in this section.

*Miscellaneous Comments*

*Nomination and Appointment*

Two commenters, one in support and one in opposition to the Order, expressed concern that USDA removed a paragraph of text from the original submission that would have allowed the Board to make adjustments in procedures for the nomination to, appointment to, or representation on the Board without amending the Order. This sentence would have been included in 1221.100(f) at the end of the paragraph. The Order provides for a review every five years of sorghum production and importation to determine whether there is equitable representation on the Board. However, given the organization and structure of the Board, rulemaking is appropriate and necessary to make such adjustments. Accordingly, no changes are made as a result of these comments.

*Assessment Remittance*

Several commenters requested that USDA consider changing the assessment remittance requirement from monthly to quarterly. An appropriate remittance schedule is critical to the Board's functioning. While no change is made to the final rule, USDA, in consultation with the Board, will review this issue after the program has been fully implemented. Consequently, unless otherwise prescribed in future regulations, assessments are due by the 15th of the following month in which assessments are collected.

*Freezing of Assessment Rate*

A commenter suggested that the assessment rate be frozen for a period of three years until after the referendum is conducted. We disagree. Section 1221.116(e) provides that the Board may make recommendations to the Secretary to raise or lower the assessment rate by no more than 0.2 percent of net market value received by the producer in any given year. We believe that the Board needs such discretion to recommend changes to assessments in order to fully exercise its authority to develop promotion, research, and information programs, plans, and projects. Accordingly, no change to the Order's provisions is made as a result of this comment.

*Non-Preemption of State Checkoffs*

A commenter asked for clarification regarding the non-preemption of State checkoffs due to concern that recordkeeping for a State and national checkoff would be burdensome. While the national sorghum program imposes certain reporting and recordkeeping requirements, information required under the Order can be completed from records already maintained. Such information is the same or similar to existing State sorghum and soybean programs, as well as the Soybean Checkoff program (7 CFR part 1220). Six States currently have State-legislated sorghum research and promotion programs. Further, the Order's provisions have been carefully reviewed and every effort has been made to minimize any unnecessary reporting or recordkeeping requirements. Accordingly, no change is made as a result of this comment.

*Economic Impact Analysis*

A commenter requested that USDA conduct a comprehensive economic impact analysis prior to implementing the Order. We believe that comprehensive analysis of the Order has been conducted under applicable Executive Orders, the Regulatory Flexibility Act and the Paperwork Reduction Act. In addition, in 2005 and 2006, representatives of the six State-legislated sorghum promotion programs were among other sorghum industry representatives who met with AMS representatives to discuss the possibility of implementing a national sorghum checkoff program. State program representatives participated in the development of the provisions of the proposed Order during these meetings and through direct communication with the NSP during the drafting of its proposal.

*Books and Records*

AMS is changing section 1221.125(a) to make clear that producers as well as first handlers and importers are required to maintain and make available during normal business hours for inspection by employees or agents of the Board or the Secretary, such books and records as are necessary to carry out the provisions of the Order and regulations. Such changes better conform Order language to the provisions of the Act.

*Budget and Expenses*

AMS is changing section 1221.112(l) to make clear that remaining funds available to the Board after calculating State allocations should be applied, to the extent practicable, to promotion, research, and information programs, plans, or projects provided for in section 1221.121. Also, the term ''generic'' and a more detailed description of the request made by qualified sorghum producer organizations is added to section 1221.112 for clarity.

After consideration of all relevant materials presented, including the proposal and comments received, the Department has determined that this Order is consistent with and will effectuate the purposes of the 1996 Act.

It is found that good cause exist for not postponing the effective date of this rule until 30 days after publication in the **Federal Register** (5 U.S.C. 553) because given that the collection and remittance of assessments begin on July 1, 2008, the initial Board should be appointed as soon as possible in order to carry out the purposes of the program.

**List of Subjects in 7 CFR Part 1221**

Administrative practice and procedure, Advertising, Sorghum and sorghum product, Consumer information, Marketing agreements, Reporting and recordkeeping requirements.

■ For the reasons set forth in the preamble, Title 7 of Chapter XI of the Code of Federal Regulations is amended to add part 1221 to read as follows:

## PART 1221—SORGHUM PROMOTION, RESEARCH, AND INFORMATION ORDER

### Subpart A—Sorghum Promotion, Research, and Information Order

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**Authority:** 7 U.S.C. 7411–7425 and 7 U.S.C. 7401.

## Subpart A—Sorghum Promotion, Research, and Information Order

### Definitions

#### § 1221.1 Act.

*Act* means the Commodity Promotion, Research, and Information Act of 1996 (7 U.S.C. 7411–7425), and any amendments thereto.

#### § 1221.2 Board.

*Board* or *Sorghum Promotion, Research, and Information Board* means the administrative body established pursuant to § 1221.100, or such other name as recommended by the Board and approved by the Secretary.

#### § 1221.3 Calendar year.

*Calendar year* means the 12-month period from January 1 through December 31.

#### § 1221.4 Certified organization.

*Certified organization* means any organization that has been certified by the Secretary pursuant to this part as eligible to submit nominations for membership on the Board.

#### § 1221.5 Conflict of interest.

*Conflict of interest* means a situation in which a representative or employee of the Board has a direct or indirect financial interest in a person or business that performs a service for, or enters into a contract with, the Board for anything of economic value.

#### § 1221.6 Crop year.

*Crop year* means the time period by which the USDA reports crop production for sorghum and is indicated by the calendar year in which sorghum is normally harvested.

#### § 1221.7 Customs.

*Customs* means the U.S. Customs and Border Protection of the U.S. Department of Homeland Security.

#### § 1221.8 Department.

*Department* means the United States Department of Agriculture or any officer or employee of the USDA to whom authority has heretofore been delegated, or to whom authority may hereafter be delegated, to act in the Secretary's stead.

#### § 1221.9 First handler.

*First handler* means the first person who buys or takes possession (excluding a common or contract carrier of sorghum owned by another) of more than 1,000 bushels of grain sorghum; or 5,000 tons of sorghum forage, sorghum hay, sorghum haylage, sorghum billets, or sorghum silage from producers in a calendar year for marketing. The term first handler includes a producer who markets sorghum of the producer's own production directly to consumers. In any case in which sorghum is pledged as collateral for a loan issued under any Commodity Credit Corporation price support loan program and the sorghum is forfeited by the producer in lieu of loan repayment, the Commodity Credit Corporation will be considered a first handler.

#### § 1221.10 Fiscal period.

*Fiscal period* means the 12-month period ending on December 31 or such other consecutive 12-month period as shall be recommended by the Board and approved by the Secretary.

#### § 1221.11 Handle.

*Handle* means to engage in the receiving or acquiring of sorghum and in the shipment (except as a common or contract carrier of sorghum owned by another) or sale of sorghum, or other activity causing sorghum to enter the current of commerce.

#### § 1221.12 Harvest.

*Harvest* means combining or threshing sorghum for grain and/or severing the stalks from the land with mechanized equipment.

#### § 1221.13 Importer.

*Importer* means any person importing more than 1,000 bushels of grain sorghum; or 5,000 tons of sorghum forage, sorghum hay, sorghum haylage, sorghum billets, or sorghum silage into the United States in a calendar year as a principal or as an agent, broker, or consignee of any person who produces or purchases sorghum outside of the United States for sale in the United States, and who is listed as the importer of record for such sorghum.

#### § 1221.14 Information.

*Information* means information and programs that are designed to develop new markets and marketing strategies; increase market efficiency; enhance the image of sorghum on a national or international basis; and assist producers in meeting their conservation objectives. These include, but are not exclusive to:

(a) Consumer information, which means any action taken to provide information to, and broaden the understanding of, the general public regarding the consumption, use, nutritional attributes, and care of sorghum;

(b) Industry information, which means information and programs that will lead to the development of new markets, new marketing strategies, or increased efficiency for the sorghum industry, and activities to enhance the image of the sorghum industry.

#### § 1221.15 Market.

*Market* means to sell or otherwise dispose of sorghum into intrastate, interstate, or foreign commerce by buying, distributing, or otherwise placing sorghum into commerce.

#### § 1221.16 Net market price.

*Net market price* means the sales price, or other value, per volumetric unit, received by a producer for sorghum after adjustments for any premium or discount.

#### § 1221.17 Net market value.

*Net market value* means:

(a) Except as provided in paragraph (b)and (c) of this section, the value found by multiplying the net market price by the appropriate quantity of the volumetric units or the minimum value in a production contract received by a producer for sorghum after adjustments for any premium or discount.

(b) For imported sorghum, the total value paid by the importer for the sorghum as reported on the appropriate Customs form; or

(c) For sorghum pledged as collateral for a loan issued under any Commodity Credit Corporation price support loan program, the principal amount of the loan.

**§ 1221.18 Order.**

*Order* means an order issued by the Secretary under section 514 of the Act that provides for a program of generic promotion, research, and information regarding agricultural commodities authorized under the Act.

**§ 1221.19 Part and subpart.**

*Part* means the Sorghum Promotion, Research, and Information Order and all rules, regulations, and supplemental orders issued pursuant to the Act and the Order. The Order shall be a subpart of such part.

**§ 1221.20 Person.**

*Person* means any individual, group of individuals, partnership, corporation, association, cooperative, or any other legal entity.

**§ 1221.21 Producer.**

*Producer* means any person who is engaged in the production and sale of sorghum in the United States and who owns, or shares the ownership and risk of loss of, the sorghum.

**§ 1221.22 Production.**

*Production,* as used in § 1221.100, means:

(a) for the purpose of establishing the initial Board in paragraphs (a), (b), (c), (d), and (e) of § 1221.100, the volume of grain sorghum produced during the last 5 crop years, excluding the high and low years, and

(b) For the purpose of reapportionment in paragraphs (e) and (f) of § 1221.100, the total assessments collected by the Board during the last 5 crop years, excluding the high and low years.

**§ 1221.23 Promotion.**

*Promotion* means any action taken to present a favorable image of sorghum to the public and the end-user industry for the purpose of improving the competitive position of sorghum and stimulating the sale of sorghum. This includes paid advertising and public relations.

**§ 1221.24 Qualified sorghum producer organization.**

*Qualified sorghum producer organization* means a qualified State-legislated sorghum promotion, research, and education commission or organization, approved by the Secretary. For States without a qualified State-legislated sorghum promotion, research, and education commission or organization, qualified sorghum producer organization means any qualified organization that has the primary purpose of representing sorghum producers, has sorghum producers as members, and that is approved by the Secretary.

**§ 1221.25 Referendum.**

*Referendum* means a referendum conducted by the Secretary pursuant to the Act whereby producers and importers are provided the opportunity to vote to determine whether the continuance of this subpart is favored by a majority of eligible persons voting.

**§ 1221.26 Research.**

*Research* means any type of test, study, or analysis designed to advance the knowledge, image, desirability, use, marketability, production, product development, or quality of sorghum, including, but not limited to, research relating to yield, nutritional value, cost of production, new product development, inbred and hybrid development, nutritional value, health research, and marketing of sorghum.

**§ 1221.27 Secretary.**

*Secretary* means the Secretary of Agriculture of the United States, or any officer or employee of the Department to whom authority has heretofore been delegated, or to whom authority may hereafter be delegated, to act in the Secretary's stead.

**§ 1221.28 Sorghum.**

*Sorghum* means any harvested portion of *Sorghum bicolor* (L.) Moench or any related species of the genus Sorghum of the family Poaceae. This includes, but is not limited to, grain sorghum (including hybrid sorghum seeds, inbred sorghum line seed, and sorghum cultivar seed), sorghum forage, sorghum hay, sorghum haylage, sorghum billets, and sorghum silage.

**§ 1221.29 State.**

*State* means any of the 50 States, the District of Columbia, the Commonwealth of Puerto Rico, or any territory or possession of the United States.

**§ 1221.30 Suspend.**

*Suspend* means to issue a rule under section 553 of title 5, U.S.C., to temporarily prevent the operation of an order or part thereof during a particular period of time specified in the rule.

**§ 1221.31 Terminate.**

*Terminate* means to issue a rule under section 553 of title 5, U.S.C., to cancel permanently the operation of an order or part thereof beginning on a certain date specified in the rule.

**§ 1221.32 United States.**

*United States* or *U.S.* means collectively the 50 States, the District of Columbia, the Commonwealth of Puerto Rico, and the territories and possessions of the United States.

## Sorghum Promotion, Research, and Information Board

**§ 1221.100 Establishment and representation.**

There is hereby established a Sorghum Promotion, Research, and Information Board, hereinafter called the Board. Representation includes, but is not limited to, fixed State seats determined by total production with at-large seats to allow representation from a broad geographical area. The Board shall initially be composed of 13 representatives, with the maximum number of producers from one State limited to 6, appointed by the Secretary from nominations as follows:

(a) The largest production State based on total production shall have 5 sorghum producers to serve as representatives.

(b) The second largest production State based on total production shall have 3 sorghum producers to serve as representatives.

(c) The third largest production State based on total production shall have one sorghum producer to serve as a representative.

(d) There shall be 4 sorghum producers to serve as at-large national representatives with at least two representatives appointed from States not described in paragraphs (a), (b), and (c) of this section.

(e) If the value of assessments on imported sorghum reaches or exceeds the production of the third largest sorghum production State, there shall be one importer to serve as a representative plus an additional at-large national representative, with the maximum number of producers from one State being increased from six to seven.

(f) At least once every 5 years, the Board will review the geographical distribution of production of sorghum in the United States, the production of

sorghum in the United States, and the value of assessments on sorghum imported into the United States. The review will be based on Board assessment records and statistics from the USDA. If warranted, the Board may recommend to the Secretary that representation on the Board be altered to reflect any changes in geographical distribution of domestic sorghum production. If, in the review, the Board determines that the value of assessments on sorghum imported into the United States exceeds 15 percent of the production of sorghum, the Board shall recommend to the Secretary that the nomination procedures and appointments to the Board be altered as necessary or appropriate to facilitate the equitable representation of importers on the Board.

**§ 1221.101 Nominations.**

All nominations authorized under this section shall be made in the following manner:

(a) Nominations for State-specific and at-large national seats shall be obtained by the Secretary from eligible organizations certified under § 1221.107. Certified eligible organizations representing producers in a State, or when making nominations for at-large seats, shall submit to the Secretary at least two nominees for each vacant seat. If the Secretary determines that a State is not represented by a certified eligible organization, then the Secretary may solicit nominations from other organizations or other persons residing in the State.

(b) If so required pursuant to § 1221.100(f), at least two nominations for the importer representative shall be submitted by the Board to the Secretary.

(c) After the establishment of the initial Board, the Secretary shall announce when a vacancy does or will exist. Nominations for subsequent Board representatives shall be submitted to the Secretary not less than 90 days prior to the expiration of the terms of the representatives whose terms are expiring, in the manner as described in this section. In the case of vacancies due to reasons other than the expiration of a term of office, successor Board members shall be appointed pursuant to section 1221.105.

(d) When there is more than one certified eligible organization representing a State or when the Secretary solicits nominations from organizations and persons residing in that State, or when eligible certified organizations are nominating persons for at-large positions, eligible certified organizations may caucus and jointly nominate two qualified producers for each position on the Board for which a representative is to be appointed. If joint agreement is not reached with respect to any such nominations, or if no caucus is held, each eligible organization may submit to the Secretary two nominees for each appointment to be made to represent that State, or to fill an at-large position.

**§ 1221.102 Nominee's agreement to serve.**

Any producer or person nominated to serve on the Board shall file with the Secretary at the time of the nomination a written agreement to:

(a) Serve on the Board if appointed;

(b) Disclose any relationship with any sorghum promotion entity or with any organization that has or is being considered for a contractual relationship with the Board; and

(c) Withdraw from participation in deliberations, decision-making, or voting on matters that concern the relationship disclosed under paragraph (b) of this section.

**§ 1221.103 Appointment.**

From the nominations made pursuant to § 1221.101, the Secretary shall appoint the representatives of the Board on the basis of representation provided in § 1221.100.

**§ 1221.104 Term of office.**

(a) The term of office for the representatives of the Board shall be three years, except for the initial term, pursuant to paragraph (c) of this section.

(b) Representatives may serve a maximum of 2 consecutive 3-year terms.

(c) When the Board is first established, the Secretary shall establish staggered terms as follows:

(1) Largest Production State—2 representatives shall serve a 2-year term, 1 representative shall serve a 3-year term, and 2 representatives shall serve a 4-year term.

(2) Second Largest Production State—1 representative shall serve a 2-year term, 1 representative shall serve a 3-year term, and 1 representative shall serve a 4-year term.

(3) Third Largest Production State—The representative shall serve a 3-year term.

(4) At-large national—1 representative shall serve a 2-year term, 2 representatives shall serve a 3-year term, and 1 representative shall serve a 4-year term.

(5) States with multiple representatives shall have their staggered terms assigned by the Secretary. At-large national representatives shall also have their staggered terms assigned by the Secretary.

(6) Representatives serving initial terms of 2 or 4 years shall be eligible to serve a single term of 3 years after their initial 2- or 4-year term.

(d) Each representative shall continue to serve until a successor is appointed by the Secretary and has accepted the position.

(e) Any successor appointed pursuant to § 1221.105 serving 1 year or less may serve two consecutive 3-year terms.

**§ 1221.105 Vacancies.**

To fill any vacancy occasioned by the death, removal, resignation, or disqualification of any member of the Board, a successor for the unexpired term of such representative shall be appointed by the Secretary pursuant to § 1221.103 from the most recent list of nominations for the position pursuant to § 1221.101 or the Secretary shall request nominations for a successor pursuant to § 1221.101, except that said nomination and replacement shall not be required if an unexpired term is less than 6 months.

**§ 1221.106 Removal.**

If the Secretary determines that any person appointed under this part fails or refuses to perform his or her duties properly or engages in an act of dishonesty or willful misconduct, the Secretary shall remove the person from office. A person appointed under this part or any employee of the Board may be removed by the Secretary if the Secretary determines that the person's continued service would be a detriment to the purposes of the Act.

**§ 1221.107 Certification of organizations.**

(a) The eligibility of State, regional, or national organizations to participate in making nominations for membership on the Board shall be certified by the Secretary. Those organizations that may seek certification include:

(1) State-legislated sorghum promotion, research, and information organizations;

(2) Organizations whose primary purpose is to represent sorghum producers within a State, region, or at the national level; or,

(3) Organizations that have sorghum producers as members.

(b) Such eligibility shall be based, in addition to other information, upon a report submitted by the organization that shall contain information deemed relevant and specified by the Secretary for the making of such determination, including the following:

(1) The geographic territory covered by the organization's active membership;

(2) The nature and size of the organization's active membership,

proportion of active membership accounted for by producers, a map showing the sorghum producing counties in which the organization has active members, the volume of sorghum produced in each such county, the number of sorghum producers in each such county, and the size of the organization's active sorghum producer membership in each such county;

(3) The extent to which the sorghum producer membership of such organization is represented in setting the organization's policies;

(4) Evidence of stability and permanency of the organization;

(5) Sources from which the organization's operating funds are derived;

(6) The functions of the organization; and

(7) The ability and willingness of the organization to further the purpose and objectives of the Act.

(c) The primary consideration in determining the eligibility of an organization shall be whether its sorghum producer membership consists of a sufficiently large number of sorghum producers who produce a relatively significant volume of sorghum to reasonably warrant its participation in the nomination of State specific and national at-large members to the Board. Any sorghum producer organization found eligible by the Secretary under this section shall be certified by the Secretary, and the Secretary's determination as to eligibility shall be final.

**§ 1221.108 Procedure.**

(a) At a Board meeting, it will be considered a quorum when a simple majority of the voting representatives are present.

(b) At the start of each fiscal period, the Board will approve a chairperson, vice chairperson, and secretary/treasurer who will conduct meetings throughout that period.

(c) All Board representatives and the Secretary or the Secretary's designee will be notified at least 30 days in advance of all Board and committee meetings, unless an emergency meeting is declared.

(d) Each voting representative of the Board will be entitled to one vote on any matter put to the Board, and the motion will carry if supported by a simple majority of the total votes of the Board representatives present at the meeting.

(e) It will be considered a quorum at a committee meeting when a simple majority of those assigned to the committee are present at the meeting. Committees may consist of individuals other than Board representatives, and such individuals may vote in committee meetings. Committee members shall serve without compensation but shall be reimbursed for reasonable travel expenses, as approved by the Board.

(f) In lieu of voting at a properly convened meeting and, when in the opinion of the chairperson of the Board such action is considered necessary, the Board may take action if supported by a simple majority of the Board representatives by mail, telephone, electronic mail, facsimile, or any other means of communication. In that event, all representatives must be notified and provided the opportunity to vote. Any action so taken shall have the same force and effect as though such action had been taken at a properly convened meeting of the Board. All telephone votes shall be confirmed promptly in writing. All votes shall be recorded in Board minutes.

(g) There shall be no voting by proxy.

(h) The chairperson shall be a voting representative.

(i) The organization of the Board and the procedures for conducting meetings of the Board shall be in accordance with its bylaws, which shall be established by the Board and approved by the Secretary.

**§ 1221.109 Compensation and reimbursement.**

The representatives of the Board shall serve without compensation but shall be reimbursed for reasonable travel expenses, as approved by the Board, incurred by them in the performance of their duties as Board representatives.

**§ 1221.110 Powers and duties.**

The Board shall have the following powers and duties:

(a) To administer the Order in accordance with its terms and conditions and to collect assessments;

(b) To develop and recommend to the Secretary for approval such bylaws as may be necessary for the functioning of the Board, and such rules as may be necessary to administer the Order, including activities authorized to be carried out under the Order;

(c) To meet not less than annually, and organize, and select from among the representatives of the Board a chairperson, other officers, committees, and subcommittees, as the Board determines appropriate;

(d) To employ persons, other than the representatives, as the Board considers necessary to assist the Board in carrying out its duties and to determine the compensation and specify the duties of such persons;

(e) To develop programs, plans, and projects, and enter into contracts or agreements, which must be approved by the Secretary before becoming effective, for the development and carrying out of programs, plans, or projects of research, information, or promotion, and the payment of costs thereof with funds collected pursuant to this subpart. Each contract or agreement shall provide that: Any person who enters into a contract or agreement with the Board shall develop and submit to the Board a proposed activity; keep accurate records of all of its transactions relating to the contract or agreement; account for funds received and expended in connection with the contract or agreement; make periodic reports to the Board of activities conducted under the contract or agreement; and, make such other reports available as the Board or the Secretary considers relevant. Furthermore, any contract or agreement shall provide that:

(1) The contractor or agreeing party shall develop and submit to the Board a program, plan, or project together with a budget or budgets that shall show the estimated cost to be incurred for such program, plan, or project;

(2) The contractor or agreeing party shall keep accurate records of all its transactions and make periodic reports to the Board of activities conducted, submit accounting for funds received and expended, and make such other reports as the Secretary or the Board may require;

(3) The Secretary may audit the records of the contracting or agreeing party periodically; and

(4) Any subcontractor who enters into a contract with a Board contractor and who receives or otherwise uses funds allocated by the Board shall be subject to the same provisions as the contractor.

(f) To prepare and submit for approval of the Secretary fiscal period budgets in accordance with § 1221.112;

(g) To maintain such records and books and prepare and submit such reports and records from time to time to the Secretary as the Secretary may prescribe; to make appropriate accounting with respect to the receipt and disbursement of all funds entrusted to it; and to keep records that accurately reflect the actions and transactions of the Board;

(h) To cause its books to be audited by a competent auditor at the end of each fiscal period and at such other times as the Secretary may request, and to submit a report of the audit directly to the Secretary;

(i) To give the Secretary the same notice of Board and committee meetings as is given to representatives in order that the Secretary's representative(s) may attend such meetings;

(j) To act as intermediary between the Secretary and any producer, first handler or importer;

(k) To furnish to the Secretary any information or records that the Secretary may request;

(l) To receive, investigate, and report to the Secretary complaints of violations of the Order;

(m) To recommend to the Secretary such amendments to the Order as the Board considers appropriate; and with the approval of the Secretary, to make rules and regulations to effectuate the terms and provisions of this subpart;

(n) To work to achieve an effective, continuous, and coordinated program of promotion, research, consumer information, evaluation, and industry information designed to strengthen the sorghum industry's position in the marketplace; maintain and expand existing markets and uses for sorghum; and to carry out programs, plans, and projects designed to provide maximum benefits to the sorghum industry;

(o) To provide not less than annually a report to producers and importers accounting for the funds expended by the Board, and describing programs implemented under the Act; and to make such report available to the public upon request; and

(p) To invest funds in accordance with § 1221.115.

**§ 1221.111 Prohibited activities.**

The Board may not engage in, and shall prohibit the employees and agents of the Board from engaging in:

(a) Any action that is a conflict of interest;

(b) Using funds collected by the Board under the Order to undertake any action for the purpose of influencing legislation or governmental action or policy, by local, State, national, and foreign governments, other than recommending to the Secretary amendments to this part; and

(c) Any advertising, including promotion, research, and information activities authorized to be carried out under the Order that is false or misleading or disparaging to another agricultural commodity.

**Expenses and Assessments**

**§ 1221.112 Budget and expenses.**

(a) Prior to the beginning of each fiscal period, and as may be necessary thereafter, the Board shall prepare and submit to the Secretary a budget for the fiscal period covering its anticipated expenses and disbursements in administering this subpart. Each such budget shall include:

(1) A statement of objectives and strategy for each program, plan, or project;

(2) A summary of anticipated revenue, with comparative data for at least one preceding year (except for the initial budget);

(3) A summary of proposed expenditures for each program, plan, or project; and

(4) Staff and administrative expense breakdowns, with comparative data for at least one preceding year (except for the initial budget).

(b) Each budget shall provide adequate funds to defray its proposed expenditures and to provide for a reserve as set forth in this subpart.

(c) Subject to this section, any amendment or addition to an approved budget that increases the budget must be approved by the Secretary. Shifts of funds that do not result in an increase in the Board's approved budget and that are consistent with this subpart and the Board's governing bylaws need not have prior approval by the Secretary.

(d) The Board is authorized to incur such expenses, including provision for a reasonable reserve, as the Secretary finds are reasonable and likely to be incurred by the Board for its maintenance and functioning, and to enable it to exercise its powers and perform its duties in accordance with the provisions of this subpart. Such expenses shall be paid from funds received by the Board.

(e) With approval of the Secretary, the Board may borrow money for the payment of administrative expenses, subject to the same fiscal, budget, and audit controls as other funds of the Board. Any funds borrowed by the Board shall be expended only for startup costs and capital outlays and are limited to the first fiscal period of operation of the Board.

(f) The Board may accept voluntary contributions, but these shall only be used to pay expenses incurred in the conduct of programs, plans, and projects in accordance with the Order. Such contributions shall be free from any encumbrance by the donor and the Board shall retain complete control of their use.

(g) In accordance with § 1221.118(a), the Board shall deposit funds in a refund escrow account and refrain from allocating this amount for expenditure until the Order is approved by the required referendum except as provided for in § 1221.118.

(h) The Board shall allocate an appropriate amount each year to allow for payment of future referendums.

(i) The Board shall reimburse the Secretary for all expenses incurred by the Secretary in the implementation, administration, and supervision of the Order, including all referendum costs in connection with the Order.

(j) The Board shall determine annually an allocation amount no less than 15 percent but no more than 25 percent of the total assessments collected on all sorghum available for any fiscal period, less the expenses pursuant to paragraph (i), for use by qualified sorghum producer organizations pursuant to § 1221.128 for State programs of generic promotion, research, and information. Amounts allocated by the Board for State generic promotion, research, and information programs will be based on requests submitted to the Board by qualified sorghum producer organizations when it is determined that these requests meet the goals and objectives stated in the Act and Order. The request shall include detailed programs, plans, or projects with budgets. Qualified sorghum producer organizations shall not submit requests for State generic promotion, research, and information programs that exceed the annual allocation amount determined by the Board which shall be the product of:

(1) The State's proportional contribution based on reports submitted by first handlers pursuant to § 1221.124(a) to total assessments remitted on all sorghum for the previous fiscal period; multiplied by

(2) The total assessments collected on all sorghum for the previous fiscal period less expenses pursuant to paragraph (i) of this section.

(k) The Board may not expend for administration, maintenance, and functioning of the Board in any fiscal period an amount that exceeds 10 percent of the assessments and other income received by the Board for that fiscal period except for the initial fiscal period. Reimbursements to the Secretary required under paragraph (i) of this section are excluded from this limitation on spending.

(l) The Board shall allocate all other funds available for any fiscal period, to the extent practicable, subject to paragraphs (g), (h), (i), (j), and (k) of this section on programs, plans, or projects, as provided for in § 1221.121.

(m) The Board shall determine annually the allocation of total funds pursuant to this section, with the approval of the Secretary.

**§ 1221.113 Financial statements.**

(a) As requested by the Secretary, the Board shall prepare and submit financial statements to the Secretary on a monthly basis. Each such financial statement shall include, but not be

limited to, a balance sheet, income statement, and expense budget. The expense budget shall show expenditures during the time period covered by the report, fiscal period-to-date expenditures, and the unexpended budget.

(b) Each financial statement shall be submitted to the Secretary within 30 days after the end of the time period to which it applies.

(c) The Board shall submit annually to the Secretary an annual financial statement within 90 days after the end of the fiscal period to which it applies.

**§ 1221.114 Operating reserve.**

The Board may establish an operating monetary reserve and may carry over to subsequent fiscal period excess funds in a reserve so established, *provided* that funds in the reserve shall not exceed one fiscal period's anticipated expenses.

**§ 1221.115 Investment of funds.**

The Board may invest, pending disbursement, funds it receives under this subpart, only in obligations of the United States or any agency of the United States; general obligations of any State or any political subdivision of a State; interest bearing accounts or certificates of deposit of financial institutions that are members of the Federal Reserve system; or obligations that are fully guaranteed as to principal and interest by the United States.

**§ 1221.116 Assessments.**

(a) The funds to cover the Board's expenses shall be paid from assessments on producers and importers, donations from any person not subject to assessments under this Order, and other funds available to the Board and subject to the limitations contained therein.

(b) First handlers of domestic sorghum shall be responsible for collecting assessments from producers on all domestically handled sorghum. This includes sorghum of the first handler's own production. Grain pledged as collateral for a Commodity Credit Corporation price support loan program shall be considered handled sorghum. A first handler shall not collect an assessment on sorghum from a producer when said producer presents documentation demonstrating that an assessment has previously been collected on said sorghum.

(c) The following assessment rates for sorghum shall apply:

(1) Grain sorghum shall be initially assessed at a rate of 0.6 percent of net market value received by the producer pursuant to paragraph (e) of this section; and

(2) Sorghum forage, sorghum hay, sorghum haylage, sorghum billets, and sorghum silage shall be initially assessed at a rate of 0.35 percent of net market value received by the producer pursuant to paragraph (e) of this section.

(d) Importers of sorghum shall pay an assessment to the Board through Customs on sorghum imported into the United States. The following apply to imported sorghum:

(1) The assessment rates for imported sorghum shall be the same or equivalent to the rates for sorghum produced in the United States.

(2) The import assessment shall be uniformly applied to imported sorghum that is identified by the numbers 1007.00.0020 and 1007.00.0040 in the Harmonized Tariff Schedule of the United States.

(3) The assessments due on imported sorghum shall be paid when the sorghum enters the United States.

(4) If Customs does not collect an assessment from an importer, the importer is responsible for paying the assessment to the Board.

(e) The Board will review the assessment rates and may make recommendations to modify the assessment rates to the Secretary. Assessment rates may be raised or lowered no more than 0.2 percent of net market value received by producers and importers in any one calendar year. The maximum assessment rate cannot exceed 1 percent of the net market value received by producers and importers.

(f) Each person responsible for collecting assessments under paragraph (b) of this section shall remit the amount due to the Board in such a manner as required by regulations recommended by the Board and prescribed by the Secretary.

(g) Any unpaid assessment due to the Board pursuant to this section shall be increased 2 percent each month beginning with the day following the date such assessments were due. Any remaining amount due, which shall include any unpaid charges previously made pursuant to this paragraph, shall be increased at the same rate on the corresponding day of each month thereafter until paid. For the purposes of this paragraph, any assessment determined at a later date than the date prescribed by this subpart because of a person's failure to timely submit a report to the Board shall be considered to have been payable by the date it would have been due if the report had been filed timely. The timeliness of a payment to the Board shall be based on the applicable postmark date or the date actually received by the Board.

(h) An additional charge shall be imposed on any person subject to a late payment charge in the form of interest on the outstanding portion of any amount for which the person is liable. The rate of interest shall be prescribed by the Secretary.

(i) Persons failing to remit total assessments due in a timely manner may also be subject to actions under Federal debt collection procedures.

(j) The Board may authorize other organizations to collect assessments on its behalf with the approval of the Secretary.

(k) The collection of assessments pursuant to this section shall begin with respect to sorghum handled on or after the effective date established by the Secretary and shall continue until terminated or suspended by the Secretary.

(l) If the Board is not in place by the date the first assessments are to be collected, the Secretary shall have the authority to receive assessments and invest them on behalf of the Board, and shall pay such assessments and any interest earned to the Board when it is formed. The Secretary shall have the authority to promulgate rules and regulations concerning assessments and the collection of assessments, if the Board is not in place or is otherwise unable to develop such rules and regulations.

(m) Payment remitted pursuant to this subpart shall be in the form of a negotiable instrument made payable to the Board. Such remittances and the reports specified in §§ 1221.124 and 1221.125 shall be mailed to the location designated by the Board.

**§ 1221.117 Exemptions.**

(a) Any importer of less than and including 1,000 bushels of grain sorghum or 5,000 tons of sorghum forage, sorghum hay, sorghum haylage, sorghum billets, or sorghum silage per calendar year may claim an exemption from the assessment required under § 1221.116.

(b) An importer desiring an exemption shall apply to the Board, on a form provided by the Board, for a certificate of exemption. An importer shall certify that the importer will import less than and including 1,000 bushels of grain sorghum or 5,000 tons of sorghum forage, sorghum hay, sorghum haylage, sorghum billets, or sorghum silage.

(c) Upon receipt of an application, the Board shall determine whether an exemption may be granted. The Board then will issue, if deemed appropriate, a certificate of exemption to each person who is eligible to receive one. It is the responsibility of these persons to retain a copy of the certificate of exemption.

(d) Importers who receive a certificate of exemption shall be eligible for reimbursement of assessments collected by Customs. These importers shall apply to the Board for reimbursement of any assessments paid. No interest will be paid on the assessments collected by Customs. Requests for reimbursement shall be submitted to the Board within 90 days of the last day of the calendar year the sorghum was actually imported.

(e) Any person who desires an exemption from assessments for a subsequent calendar year shall reapply to the Board, on a form provided by the Board, for a certificate of exemption.

(f) The Board may require persons receiving an exemption from assessments to provide to the Board reports on the disposition of exempt sorghum and, in the case of importers, proof of payment of assessments.

(g) A producer or importer who operates under an approved National Organic Program (NOP) (7 CFR part 205) system plan; produces or imports only products that are eligible to be labeled as 100 percent organic under the NOP, except as provided for in paragraph (m) of this section; and is not, or does not import products from, a split operation shall be exempt from the payment of assessments.

(h) To apply for an exemption under this section, the applicant shall submit the request to the Board or other party as designated by the Board, on a form provided by the Board, at any time initially and annually thereafter on or before January 1 as long as the applicant continues to be eligible for the exemption.

(i) The request shall include the following: The applicant's name and address, a copy of the organic farm or organic handling operation certificate provided by a USDA accredited certifying agent as defined in section 2103 of the Organic Foods Production Act of 1990 (7 U.S.C. 6502), a signed certification that the applicant meets all of the requirements specified for an assessment exemption, and such other information as may be required by the Board and with the approval of the Secretary.

(j) If the applicant complies with the requirements of this section, the Board or designee will grant the exemption and issue a Certificate of Exemption to the applicant. The Board will have 30 days from the date of receiving the request to approve the exemption request. If the application is disapproved, the Board will notify the applicant of the reason(s) for disapproval within the same timeframe.

(k) The producer or importer shall provide a copy of the Certificate of Exemption to each first handler. The first handler shall maintain records showing the name and address of the exempt producer or importer and the exemption number assigned by the Board.

(l) The exemption will apply at the first reporting period following the issuance of the exemption.

(m) Agricultural commodities produced and marketed under an organic system plan, as described in 7 CFR 205.201, but not sold, labeled, or represented as organic, shall not disqualify a producer or importer from exemption under this section, except that producers or importers who produce or import both organic and non-organic agricultural commodities as a result of split operations shall not qualify for exemption. Reasons for conventional sales include lack of demand for organic products, isolated use of antibiotics for humane purposes, chemical or pesticide use as the result of State or emergency spray programs, and crops from a buffer area as described in 7 CFR Part 205, provided all other criteria are met.

**§ 1221.118 Refund escrow accounts.**

(a) The Board shall establish an interest bearing escrow account with a financial institution that is a member of the Federal Reserve System and will deposit into such account an amount equal to the product obtained by multiplying the total amount of assessments collected by the Board during the period beginning on the effective date of the Order and ending on the date the Secretary announces the results of the required referendum by ten percent (10 percent).

(b) Upon failure of the required referendum, the Board shall pay refunds of assessments to eligible persons requesting refunds during the period beginning on the effective date of the Order and ending on the date the Secretary announces the results of the required referendum in the manner specified in paragraph (c) of this section.

(c) If the amount deposited in the escrow account is less than the amount of refunds requested, the Board shall prorate the amount deposited in such account among all eligible persons who request a refund of assessments paid no later than 90 days after the required referendum results are announced by the Secretary.

(d) If the Order is approved by the required referendum conducted under § 1221.130 then:

(1) The escrow account shall be closed; and

(2) The funds shall be available to the Board for disbursement under § 1221.112.

**§ 1221.119 Refunds.**

Any producer or importer from whom an assessment is collected and remitted to the Board, or who pays an assessment directly to the Board, under authority of the Act and this subpart through the announcement of the results of the required referendum, upon failure of the required referendum shall have the right to receive from the Board a refund of such assessment, or a prorated share thereof, upon submission of proof satisfactory to the Board that the producer or importer paid the assessment for which refund is sought. Any such demand shall be made by such producer or importer in accordance with the provisions of this subpart and in a manner consistent with regulations recommended by the Board and prescribed by the Secretary.

**§ 1221.120 Procedure for obtaining a refund.**

Upon failure of the required referendum, each producer or importer who paid an assessment pursuant to this subpart during the period beginning on the effective date of the Order and ending on the date the required referendum results are announced may obtain a refund of such assessment only by following the procedures prescribed in this section and any regulations recommended by the Board and prescribed by the Secretary:

(a) A producer or importer shall obtain a Board-approved refund application form from the Board. Such forms may be obtained by written request to the Board and the request shall bear the producer's or importer's signature or properly witnessed mark.

(b) Any producer or importer requesting a refund shall submit an application on the prescribed form to the Board within 60 days from the date the assessments were paid by such producer or importer but no later than the date the results of the required referendum are announced by the Secretary. The refund application shall show:

(1) Producer's or importer's name and address;

(2) Name and address of the person who collected applicant's assessment;

(3) Number of bushels or tons of sorghum on which a refund is requested;

(4) Total amount of refund requested;

(5) Date or inclusive dates on which assessments were paid; and

(6) The producer's or importer's signature or properly witnessed mark.

(c) The documentation provided pursuant to § 1221.125(b) to the producer by the first handler responsible for collecting an assessment pursuant to this subpart, or a copy thereof, or such other evidence deemed satisfactory to the Board, shall accompany the producer's refund application. An importer must submit documentation showing that the assessment was paid along with a copy of the appropriate Customs form stating the net market value of the sorghum.

(d) The Board shall initiate payment of refund requests, or pay a prorated share thereof, within 90 days of the date the results of the required referendum are released by the Secretary. Refunds shall be paid in a manner consistent with § 1221.119.

## Promotion, Research, and Information

### § 1221.121 Programs, plans, and projects.

(a) The Board shall receive and evaluate, or on its own initiative develop, and submit to the Secretary for approval any program, plan, or project authorized under this subpart. Such programs, plans, or projects shall provide for:

(1) The establishment, issuance, effectuation, and administration of appropriate programs for promotion, research, and information, including consumer and industry information, with respect to sorghum; and

(2) The establishment and conduct of research with respect, but not limited to: The yield, use, nutritional value and benefits, sale, distribution, and marketing of sorghum, and the creation of new products thereof, to the end that the marketing and use of sorghum may be encouraged, expanded, improved, or made more acceptable; and to advance the image, desirability, or quality of sorghum.

(b) No program, plan, or project shall be implemented prior to its approval by the Secretary. Once a program, plan, or project is so approved, the Board shall take appropriate steps to implement it.

(c) Each program, plan, or project implemented under this subpart shall be reviewed or evaluated periodically by the Board to ensure that it contributes to an effective program of promotion, research, or information. If it is found by the Board that any such program, plan, or project does not contribute to an effective program of promotion, research, or information, then the Board shall terminate such program, plan, or project.

(d) No program, plan, or project including advertising shall be false or misleading or disparaging to another agricultural commodity. Sorghum of all origins shall be treated equally.

### § 1221.122 Independent evaluation.

Pursuant to the Federal Agriculture Improvement and Reform Act of 1996 (7 U.S.C. 7401), the Board shall, not less often than every five years, authorize and fund, from funds otherwise available to the Board, an independent evaluation of the effectiveness of the Order and other programs conducted by the Board pursuant to the Act. The Board shall submit to the Secretary, and make available to the public, the results of each periodic independent evaluation conducted under this paragraph.

### § 1221.123 Patents, copyrights, inventions, trademarks, information, publications, and product formulations.

(a) Any patents, copyrights, inventions, trademarks, information, publications, or product formulations developed through the use of funds collected by the Board under the provisions of this subpart shall be the property of the U.S. Government, as represented by the Board, and shall, along with any rents, royalties, residual payments, or other income from the rental, sales, leasing, franchising, or other uses of such patents, copyrights, inventions, trademarks, information, publications, or product formulations, inure to the benefit of the Board; shall be considered income subject to the same fiscal, budget, and audit controls as other funds of the Board; and may be licensed subject to approval by the Secretary. Upon termination of this subpart, § 1221.132 shall apply to determine disposition of all such property.

(b) Should patents, copyrights, inventions, trademarks, information, publications, or product formulations be developed through the use of funds collected by the Board under this subpart and funds contributed by another organization or person, ownership and related rights to such patents, copyrights, inventions, trademarks, information, publications, or product formulations shall be determined by agreement between the Board and the party contributing funds towards the development of such patents, copyrights, inventions, trademarks, information, publications, or product formulations in a manner consistent with paragraph (a) of this section.

## Reports, Books, and Records

### § 1221.124 Reports.

(a) Each first handler, on a State-by-State basis, will be required to provide to the Board periodically such information as may be required by the Board, with the approval of the Secretary, which may include but not be limited to the following:

(1) Number of bushels or tons of domestic sorghum within the State that were marketed to the first handler;

(2) Number of bushels or tons of domestic sorghum within the State on which an assessment was paid;

(3) The amount of assessments remitted on sorghum within the State;

(4) Date that any assessments were paid within the State;

(5) The explanation, if necessary, to show why the remittance is less than the applicable assessment rate multiplied by the net market price multiplied by the number of bushels or tons within the State that were marketed to the first handler; and

(6) The first handler's tax identification number.

(b) Each importer will be required to provide to the Board periodically such information as may be required by the Board, with the approval of the Secretary, which may include but not be limited to the following:

(1) Number of bushels or tons of sorghum imported;

(2) Number of bushels or tons of imported sorghum on which an assessment was paid;

(3) The amount of assessments remitted;

(4) Date that any assessments were paid;

(5) The explanation, if necessary, to show why the remittance is less than the applicable assessment rate multiplied by the net market value; and

(6) The importer's tax identification number.

### § 1221.125 Books and records.

(a) Each first handler, producer, or importer subject to this subpart shall maintain and make available during normal business hours for inspection By employees or agents of the Board or the Secretary such books and records as are necessary to carry out the provisions of this part, including records necessary to verify any required reports. Such records shall be maintained for at least 2 years beyond the fiscal period of their applicability.

(b) Each first handler responsible for collecting assessments pursuant to this subpart is required to give the producer from whom the assessment was collected, written evidence of payment of the assessment paid pursuant to this subpart. Such written evidence serving as a receipt shall include, but not be limited to, the following information:

(1) Name and address of the first handler,

(2) Name of producer who paid the assessment,

(3) Total number of bushels or tons of sorghum on which the assessment was paid,

(4) Total assessment paid by the producer,

(5) Date on which assessments were paid, and

(6) Such other information as the Board, with the approval of the Secretary, may require.

**§ 1221.126 Use of information.**

Information from records or reports required pursuant to this subpart shall be made available to the Secretary as is appropriate to the administration or enforcement of the Act, subpart, or any regulation issued under the Act. In addition, the Secretary may authorize the use, under this part, of information regarding producers, first handlers, or importers, that is accumulated under laws or regulations other than the Act or regulations issued under the Act.

**§ 1221.127 Confidential treatment.**

All information obtained from books, records, or reports under the Act and this part shall be kept confidential by all persons, including all employees and former employees of the Board, all officers and employees and former officers and employees of contracting and subcontracting agencies or agreeing parties having access to such information. Such information shall not be available to Board representatives, first handlers, producers, or importers. Only those persons having a specific need for such information to effectively administer the provisions of this subpart shall have access to such information. Only such information so obtained as the Secretary deems relevant shall be disclosed by them, and then only in a judicial proceeding or administrative hearing brought at the direction, or on the request, of the Secretary, or to which the Secretary or any officer of the United States is a party, and involving this subpart. Nothing in this section shall be deemed to prohibit:

(a) The issuance of general statements based upon the reports of the number of persons subject to this subpart or statistical data collected there from, which statements do not identify the information furnished by any person; and

(b) The publication, by direction of the Secretary, of the name of any person who has been adjudged to have violated this part, together with a statement of the particular provisions of this part violated by such person.

**Qualification of Sorghum Producer Organizations**

**§ 1221.128 Qualification.**

(a) Organizations receiving qualification from the Secretary will be entitled to submit requests for funding to the Board pursuant to § 1221.112(j). Only one sorghum producer organization per State may be qualified.

(b) State-legislated sorghum promotion, research, and information organizations may request qualification and will be considered first for qualification by the Secretary.

(c) If a State-legislated sorghum promotion, research, and information organization does not elect to seek qualification from the Secretary within a specified time period as determined by the Secretary, or does not meet eligibility requirements as specified by the Secretary, then any State sorghum producer organization whose primary purpose is to represent sorghum producers within a State, or any other State organization that has sorghum producers as part of its membership, may request qualification.

(d) Qualification shall be based, in addition to other available information, upon a factual report submitted by the organization that shall contain information deemed relevant and specified by the Secretary for the making of such determination, including the following:

(1) The geographic territory covered by the organization's active membership;

(2) The nature and size of the organization's active membership, proportion of active membership accounted for by producers, a map showing the sorghum-producing counties in which the organization has active members, the volume of sorghum produced in each such county, the number of sorghum producers in each such county, and the size of the organization's active sorghum producer membership in each such county;

(3) The extent to which the sorghum producer membership of such organization is represented in setting the organization's policies;

(4) Evidence of stability and permanency of the organization;

(5) Sources from which the organizations operating funds are derived;

(6) The functions of the organization; and

(7) The ability and willingness of the organization to further the purpose and objectives of the Act.

(e) The primary consideration in determining the eligibility of an organization shall be whether its sorghum producer membership consists of a sufficiently large number of sorghum producers who produce a relatively significant volume of sorghum to reasonably warrant its qualification to submit requests for funding to the Board. Any sorghum producer organization found eligible by the Secretary under this section will be qualified by the Secretary, and the Secretary's determination as to eligibility shall be final.

**Miscellaneous**

**§ 1221.129 Right of the Secretary.**

All fiscal matters, programs, plans, or projects, rules or regulations, reports, or other substantive actions proposed and prepared by the Board shall be submitted to the Secretary for approval.

**§ 1221.130 Referenda.**

(a) For the purpose of ascertaining whether the persons subject to this part favor the continuation, suspension, or termination of this part, the Secretary shall conduct a referendum among persons subject to assessments under § 1221.116 who, during a representative period determined by the Secretary, have engaged in the production or importation of sorghum.

(1) The referendum shall be conducted not later than 3 years after assessments first begin under this part.

(2) This part will be approved in a referendum if a majority of those persons voting vote for approval.

(b) The Secretary shall conduct a subsequent referendum:

(1) Not later than 7 years after assessments first begin under this part;

(2) At the request of the Board; or

(3) At the request of 10 percent or more of the sorghum producers and importers eligible to vote to determine if the persons favor the continuation, suspension, or termination of this part.

(c) The Secretary may conduct a referendum at any time to determine whether the continuation, suspension or termination of this part or a provision of this part is favored by sorghum producers and importers eligible to vote.

(d) The Board shall reimburse the Secretary for any expenses incurred by the Secretary to conduct referenda.

(e) A referendum conducted under this section with respect to this part shall be conducted in the manner determined by the Secretary to be appropriate.

**§ 1221.131 Suspension or termination.**

(a) The Secretary shall suspend or terminate this part or subpart or a provision thereof if the Secretary finds that the subpart or a provision thereof obstructs or does not tend to effectuate

the purposes of the Act, or if the Secretary determines that this subpart or a provision thereof is not favored by persons voting in a referendum conducted pursuant to the Act.

(b) The Secretary shall suspend or terminate this subpart at the end of the fiscal period whenever the Secretary determines that its suspension or termination is approved or favored by a majority of the producers and importers voting who, during a representative period determined by the Secretary, have been engaged in the production or importation of sorghum.

(c) If, as a result of a referendum the Secretary determines that this subpart is not approved, the Secretary shall:

(1) No later than 180 days after making the determination, suspend or terminate, as the case may be, collection of assessments under this subpart; and

(2) As soon as practical, suspend or terminate, as the case may be, activities under this subpart in an orderly manner.

**§ 1221.132 Proceedings after termination.**

(a) Upon the termination of this subpart, the Board shall recommend not more than five of its representatives to the Secretary to serve as trustees for the purpose of liquidating the affairs of the Board. Such persons, upon designation by the Secretary, shall become trustees of all of the funds and property then in the possession or under control of the Board, including claims for any funds unpaid or property not delivered, or any other claim existing at the time of such termination.

(b) The said trustees shall:

(1) Continue in such capacity until discharged by the Secretary;

(2) Carry out the obligations of the Board under any contracts or agreements entered into pursuant to the Order;

(3) From time to time, account for all receipts and disbursements and deliver all property on hand, together with all books and records of the Board and the trustees, to such person or persons as the Secretary may direct; and

(4) Upon request of the Secretary, execute such assignments or other instruments necessary and appropriate to vest in such persons, title and right to all funds, property and claims vested in the Board or the trustees pursuant to the Order.

(c) Any person to whom funds, property or claims have been transferred or delivered pursuant to the Order shall be subject to the same obligations imposed upon the Board and upon the trustees.

(d) Any residual funds not required to defray the necessary expenses of liquidation shall be turned over to the Secretary to be disposed of, to the extent practical, by qualified organizations pursuant to § 1221.128 in the interest of continuing sorghum promotion, research, and information programs.

**§ 1221.133 Effect of termination or amendment.**

Unless otherwise expressly provided by the Secretary, the termination or amendment of this part or any subpart thereof, shall not:

(a) Affect or waive any right, duty, obligation or liability which shall have arisen or which may thereafter arise in connection with any provision of this part; or

(b) Release or extinguish any violation of this part; or

(c) Affect or impair any rights or remedies of the United States, or of the Secretary, or of any other persons with respect to any such violation.

**§ 1221.134 Personal liability.**

No representative or employee of the Board shall be held personally responsible, either individually or jointly with others, in any way whatsoever, to any person for errors in judgment, mistakes, or other acts, either of commission or omission, as such representative or employee, except for acts of dishonesty or willful misconduct.

**§ 1221.135 Separability.**

If any provision of this subpart is declared invalid or the applicability thereof to any person or circumstances is held invalid, the validity of the remainder of this subpart or the applicability thereof to other persons or circumstances shall not be affected thereby.

**§ 1221.136 Amendments.**

Amendments to this subpart may be proposed from time to time by the Board or by any interested person affected by the provisions of the Act, including the Secretary.

**§ 1221.137 Rules and regulations.**

The Secretary may prescribe such rules and regulations as may be necessary to effectively carry out the provisions of this subpart.

**§ 1221.138 OMB control number.**

The control number assigned to the information collection requirements of this part by the Office of Management and Budget pursuant to the Paperwork Reduction Act of 1995, 44 U.S.C. Chapter 35, is OMB control number 0581–0246.

## Subparts B Through E—[Reserved]

Dated: April 24, 2008.

**Lloyd C. Day,**

*Administrator, Agricultural Marketing Service.*

[FR Doc. E8–9327 Filed 5–5–08; 8:45 am]

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Federal Register

Tuesday,
May 6, 2008

# Part V

# Federal Communications Commission

**47 CFR Parts 1, 2, 25 et al.**

**Non-Substantive Revisions to the Table of Frequency Allocations; Final Rule**

## FEDERAL COMMUNICATIONS COMMISSION

### 47 CFR Parts 1, 2, 25, 73, 74, 90, and 97

**[DA No. 08–530]**

### Non-Substantive Revisions to the Table of Frequency Allocations

**AGENCY:** Federal Communications Commission.

**ACTION:** Final rule.

**SUMMARY:** This document makes non-substantive, editorial revisions to the Commission's Table of Frequency Allocations (Allocation Table) and to various other Commission Rules. The purpose of this action is to update and clarify the Allocation Table, to remove obsolete and outdated provisions from the Commission's Rules, and to ensure that the Allocation Table and related rules are consistent with the Commission's decisions in recent rulemaking proceedings.

**DATES:** Effective May 6, 2008.

**FOR FURTHER INFORMATION CONTACT:** Tom Mooring, Office of Engineering and Technology, (202) 418–2450, e-mail: *Tom.Mooring@fcc.gov*.

**SUPPLEMENTARY INFORMATION:** This is a summary of the Commission's *Memorandum Opinion and Order,* DA 08–530, adopted March 11, 2008 and released March 12, 2008. The full text of this document is available on the Commission's Internet site at *http://www.fcc.gov*. It is also available for inspection and copying during regular business hours in the FCC Reference Center (Room CY–A257), 445 12th Street, SW., Washington, DC 20554. The full text of this document also may be purchased from the Commission's duplication contractor, Best Copy and Printing Inc., Portals II, 445 12th St., SW., Room CY–B402, Washington, DC 20554; telephone (202) 488–5300; fax (202) 488–5563; e-mail *FCC@BCPIWEB.COM*.

### Summary of the Report and Order

1. By this action, the Commission amends its rules to make non-substantive, editorial revisions to the Allocation Table and related rule sections in part 2, and to the part 1 quiet zone rules, and to the service rules for satellite communications, international broadcast stations, aural broadcast auxiliary stations, the radiolocation service, and the Amateur Radio Service. These amendments to the Allocation Table are being implemented with the concurrence of the National Telecommunications and Information Administration (NTIA). The purpose of this action is to update and clarify the Allocation Table, as well as to remove obsolete and outdated provisions from the Commission's rules. In doing so, we can also ensure that the Allocation Table and related rules are consistent with the Commission's decisions in recent rulemaking proceedings. This action is not intended to modify or otherwise change any licensee's underlying legal rights and/or responsibilities.

2. This action follows the model used in past Table Clean-up Orders, and is important because it helps ensure consistency between the allocation tables maintained by the Commission and NTIA. Among the revisions, the document:

- Updates the Allocation Table and associated service rules to no longer show now-concluded transition periods for the secondary amateur service allocation in the band 75.5–76 GHz and for international broadcast stations.
- Revises the part 25 rules to reflect a prior Commission decision that allocated feeder link spectrum for Non-Geostationary Satellite Orbit Mobile-Satellite Service systems.
- Makes conforming edits to the Allocation Table to accurately portray a variety of Commission decisions that were successfully updated within the Commission's service rules but that were left out of the Allocation Table.
- Updates numerous footnotes to the Allocation Table for consistency and to reflect corrected coordinates for Federal Government facilities, such as radio astronomy sites.
- Corrects typographical errors, updates the FCC rule part cross references, and clarifies the introductory language that describes the United States allocations.

### Administrative Procedures Act and Ordering Clause

3. Parts 1, 2, 25, 73, 74, 90, and 97 of the Commission's rules are amended herein by incorporating non-substantive, editorial revisions only. Therefore, there is good cause for not using notice and comment procedure in this case, and for shortening the effective date of the amendments from a date not less than 30 days after publication in the **Federal Register** to the date of publication in the **Federal Register**. We find that the normal procedures for notice and comment and for publication as required under section 553 of the Administrative Procedures Act would be impracticable, unnecessary, or contrary to the public interest. *See* 5 U.S.C. 553(b)(3)(B), (d)(3); *Kessler* v. *FCC,* 326 F.2d 673 (DC Cir. 1963). Furthermore, the International Table, the Federal Table, and the FCC Rule Part(s) column within 47 CFR 2.106 are included in the Commission's rules for informational purposes only and are therefore exempt from the notice provisions of the Administrative Procedures Act.

4. Accordingly, *it is ordered* that 47 CFR parts 1, 2, 25, 73, 74, 90, and 97 of the Commission's rules, *are amended* and are effective upon date of publication in the **Federal Register**. This action is taken pursuant to authority found in sections 4(i) and 303 of the Communications Act of 1934, as amended, 47 U.S.C. 154(i) and 303, and in §§ 0.31, 0.231(b) and 0.241 of the Commission's rules, 47 CFR 0.31, 0.231(b) and 0.241.

5. The Commission will not send a copy of this Memorandum Opinion and Order (MO&O), pursuant to the Congressional Review Act. The MO&O does not change any rules; it makes non-substantive, editorial revisions to the Table of Frequency Allocation and to various other Commission rules.

### List of Subjects in 47 CFR Parts 1, 2, 25, 73, 74, 90 and 97

Reporting and recordkeeping requirements.

Federal Communications Commission.

**Marlene H. Dortch,**

*Secretary.*

### Rule Changes

■ For the reasons discussed in the preamble, the Federal Communications Commission amends 47 CFR parts 1, 2, 25, 73, 74, 90, and 97 to read as follows:

## PART 1—PRACTICE AND PROCEDURE

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

**Authority:** 15 U.S.C. 79 *et seq.*; 47 U.S.C. 151, 154(i), 154(j), 155, 157, 225, 303(r), and 309.

■ 2. Section 1.924 is amended by revising paragraph (g)(1) to read as follows:

**§ 1.924 Quiet zones.**

* * * * *

(g) * * *

(1) Applicants and licensees planning to construct and operate a new or modified station within the area bounded by a circle with a radius of 100 kilometers (62.1 miles) that is centered on 37°56′44″ N, 75°27′37″ W (Wallops Island) or 64°58′22″ N, 147°30′04″ W (Fairbanks) or within the area bounded by a circle with a radius of 65 kilometers (40.4 miles) that is centered

on 39°00′02″ N, 76°50′29″ W (Greenbelt) must notify the National Oceanic and Atmospheric Administration (NOAA) of the proposed operation. For this purpose, NOAA maintains the GOES coordination Web page at *http://www.osd.noaa.gov/radio/frequency.htm,* which provides the technical parameters of the earth stations and the point-of-contact for the notification. The notification shall include the following information: Requested frequency, geographical coordinates of the antenna location, antenna height above mean sea level, antenna directivity, emission type, equivalent isotropically radiated power, antenna make and model, and transmitter make and model.

* * * * *

## PART 2—FREQUENCY ALLOCATIONS AND RADIO TREATY MATTERS; GENERAL RULES AND REGULATIONS

■ 3. The authority citation for part 2 continues to read as follows:

**Authority:** 47 U.S.C. 154, 302a, 303, and 336, unless otherwise noted.

■ 4. Section 2.1(c) is amended by adding the terms ''conterminous United States'' and ''insular area'' in alphabetical order and by revising the term ''Radiolocation Mobil Station'' to read ''Radiolocation Mobile Station.''

### § 2.1 Terms and definitions.

* * * * *

(c) * * *

* * * * *

*Conterminous United States.* The contiguous 48 States and the District of Columbia. (FCC)

* * * * *

*Insular Area.* A jurisdiction that is neither a part of one of the several States nor a Federal district. The U.S. insular areas are listed in 47 CFR 2.105(a) at notes 2 and 3. (FCC)

* * * * *

■ 5. Section 2.105 is amended by revising paragraphs (a), (b), (d)(5)(iv), and (f), by revising footnotes 1 through 6 and removing footnote 7, by adding new paragraph (d)(6), and by revising the heading of paragraph (d) to read as follows:

### § 2.105 United States Table of Frequency Allocations.

(a) The United States Table of Frequency Allocations (United States Table) is subdivided into the Federal Table of Frequency Allocations (Federal Table, column 4 of § 2.106) and the non-Federal Table of Frequency Allocations (non-Federal Table, column 5 of § 2.106). The United States Table is based on the Region 2 Table because the relevant area of jurisdiction is located primarily in Region 2 [1] (*i.e.*, the 50 States, the District of Columbia, the Caribbean insular areas,[2] and some of the Pacific insular areas).[3] The Federal Table is administered by NTIA [4] and the non-Federal Table is administered by the Federal Communications Commission (FCC).[5]

(b) In the United States, radio spectrum may be allocated to either Federal or non-Federal use exclusively, or for shared use. In the case of shared use, the type of service(s) permitted need not be the same [*e.g.*, Federal FIXED, non-Federal MOBILE]. The terms used to designate categories of services and allocations [6] in columns 4 and 5 of § 2.106 correspond to the terms in the ITU *Radio Regulations*.

* * * * *

(d) *Format of the United States Table.*

* * *

(5) * * *

(iv) Any footnote consisting of the letter ''G'' followed by one or more digits, *e.g.*, G2, denotes a stipulation applicable only to Federal operations. Federal footnotes appear solely in the Federal Table (column 4).

(6) The coordinates of latitude and longitude that are listed in United States, Federal, and non-Federal footnotes are referenced to the North American Datum of 1983 (NAD 83).

* * * * *

(f) The FCC Online Table of Frequency Allocations is updated shortly after a final rule that amends § 2.106 is released. The address for the FCC Radio Spectrum Home Page, which includes the FCC Online Table and the FCC Allocation History File, is *http://www.fcc.gov/oet/spectrum*.

■ 6. Amend § 2.106 as follows:

■ a. The Table preceding the list of international footnotes is revised.

■ b. In the list of international footnotes, revise footnotes 5.155, 5.237, 5.339, 5.438, 5.462A, 5.469A, and 5.476A.

■ c. In the list of United States (US) footnotes, add footnote US1; revise footnotes US7, US11, US81, US90, US93, US99, US116, US117, US201, US216, US217, US222, US229, US230, US247, US251, US252, US259, US262, US265, US267, US273, US285, US290, US294, US299, US301, US307, US308, US309, US310, the introductory text and table of US311, US315, US316, US323, US324, US334, US335, US337, US338, US342, US344, US346, US348, US351, US353, US354, US355, US359, US360, US362, US366, US368, US378, US381, US388, US396, US397, US399, and US401; and remove footnotes US215, US302, US321, and US387.

■ d. In the list of non-Federal Government (NG) footnotes, add footnotes NG1 and NG30; revise footnotes NG28, NG51, NG53, NG56, NG66, NG112, NG124, NG141, NG143, NG144, NG147, NG149, NG155, NG158, NG159, NG160, NG163, NG167, NG172, NG173, NG175, and NG184; and remove footnote NG31.

■ e. In the list of Federal Government (G) footnotes, revise footnotes G2, G6, and G133; remove footnotes G31 and G106; and add footnote G127.

The revisions and additions read as follows:

### § 2.106 Table of Frequency Allocations.

* * * * *

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[1] *See* 2.104(b) for definitions of the ITU Regions.

[2] The operation of stations in the U.S. insular areas located in Region 2 is generally governed by the United States Table. The U.S. insular areas located in Region 2 are comprised of the Caribbean insular areas and two of the eleven Pacific insular areas. The Caribbean insular areas are Puerto Rico, the United States Virgin Islands, and Navassa Island. The Pacific insular areas located in Region 2 are Johnston Atoll and Midway Atoll.

[3] The operation of stations in the Pacific insular areas located in Region 3 is generally governed by the Region 3 Table (*i.e.*, column 3 of § 2.106). The Pacific insular areas located in Region 3 are American Samoa, Guam, the Northern Mariana Islands, Baker Island, Howland Island, Jarvis Island, Kingman Reef, Palmyra Island, and Wake Island.

[4] Section 305(a) of the Communications Act of 1934, as amended. *See* Public Law 102–538, 106 Stat. 3533 (1992).

[5] The Communications Act of 1934, as amended.

[6] The radio services are defined in 47 CFR 2.1.

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| Below 9<br>(Not Allocated)<br>5.53 5.54 | | | Below 9<br>(Not Allocated)<br>5.53 5.54 | | |
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| 14-19.95<br>FIXED<br>MARITIME MOBILE 5.57<br>5.55 5.56 | | | 14-19.95<br>FIXED<br>MARITIME MOBILE 5.57<br>US294 | 14-19.95<br>Fixed<br>US294 | |
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| 20.05-70<br>FIXED<br>MARITIME MOBILE 5.57<br>5.56 5.58 | | | 20.05-59<br>FIXED<br>MARITIME MOBILE 5.57<br>US294 | 20.05-59<br>FIXED<br>US294 | |
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| | | | 61-70<br>FIXED<br>MARITIME MOBILE 5.57<br>US294 | 61-70<br>FIXED<br>US294 | |
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| 72-84<br>FIXED<br>MARITIME MOBILE 5.57<br>RADIONAVIGATION 5.60<br>5.56 | | 72-84<br>FIXED<br>MARITIME MOBILE 5.57<br>RADIONAVIGATION 5.60 | | | |
| 84-86<br>RADIONAVIGATION 5.60 | | 84-86<br>RADIONAVIGATION 5.60<br>Fixed<br>Maritime mobile 5.57<br>5.59 | | | |
| 86-90<br>FIXED<br>MARITIME MOBILE 5.57<br>RADIONAVIGATION<br>5.56 | 5.61 | 86-90<br>FIXED<br>MARITIME MOBILE 5.57<br>RADIONAVIGATION 5.60 | US294 | US294 | |

| | | | | | |
|---|---|---|---|---|---|
| 90-110<br>RADIONAVIGATION 5.62<br>Fixed<br>5.64 | | | 90-110<br>RADIONAVIGATION 5.62 US18<br>US104 US294 | | Aviation (87)<br>Private Land Mobile (90) |
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| 117.6-126<br>FIXED<br>MARITIME MOBILE<br>RADIONAVIGATION 5.60<br>5.64 | | 117.6-126<br>FIXED<br>MARITIME MOBILE<br>RADIONAVIGATION 5.60<br>5.64 | | | |
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| 129-130<br>FIXED<br>MARITIME MOBILE<br>RADIONAVIGATION 5.60<br>5.64 | 5.61 5.64 | 129-130<br>FIXED<br>MARITIME MOBILE<br>RADIONAVIGATION 5.60<br>5.64 | 5.64 US294 | | |
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| 148.5-255<br>BROADCASTING | 160-190<br>FIXED | 160-190<br>FIXED<br>Aeronautical radionavigation | 160-190<br>FIXED<br>MARITIME MOBILE<br>US294 | 160-190<br>FIXED<br>US294 | |
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| 5.68 5.69 5.70 | 200-275<br>AERONAUTICAL RADIONAVIGATION<br>Aeronautical mobile | 200-285<br>AERONAUTICAL RADIONAVIGATION<br>Aeronautical mobile | 200-275<br>AERONAUTICAL RADIONAVIGATION US18<br>Aeronautical mobile<br>US294 | | |
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| 315-325<br>AERONAUTICAL RADIONAVIGATION<br>Maritime radionavigation (radiobeacons) 5.73<br>5.72 5.75 | 315-325<br>MARITIME RADIONAVIGATION (radiobeacons) 5.73<br>Aeronautical radionavigation | 315-325<br>AERONAUTICAL RADIONAVIGATION<br>MARITIME RADIONAVIGATION (radiobeacons) 5.73 | | | |
| 325-405<br>AERONAUTICAL RADIONAVIGATION<br>5.72 | 325-335<br>AERONAUTICAL RADIONAVIGATION<br>Aeronautical mobile<br>Maritime radionavigation (radiobeacons) | 325-405<br>AERONAUTICAL RADIONAVIGATION<br>Aeronautical mobile | 325-335<br>AERONAUTICAL RADIONAVIGATION (radiobeacons)<br>Aeronautical mobile<br>Maritime radionavigation (radiobeacons)<br>US18 US294 | | Aviation (87) |
| | 335-405<br>AERONAUTICAL RADIONAVIGATION<br>Aeronautical mobile | | 335-405<br>AERONAUTICAL RADIONAVIGATION (radiobeacons) US18<br>Aeronautical mobile<br>US294 | | |
| 405-415<br>RADIONAVIGATION 5.76<br>5.72 | 405-415<br>RADIONAVIGATION 5.76<br>Aeronautical mobile | | 405-415<br>RADIONAVIGATION 5.76 US18<br>Aeronautical mobile<br>US294 | | Maritime (80)<br>Aviation (87) |
| 415-435<br>MARITIME MOBILE 5.79<br>AERONAUTICAL RADIONAVIGATION<br>5.72 | 415-495<br>MARITIME MOBILE 5.79 5.79A<br>Aeronautical radionavigation 5.80 | | 415-435<br>MARITIME MOBILE 5.79<br>AERONAUTICAL RADIONAVIGATION<br>US294 | | |
| 435-495<br>MARITIME MOBILE 5.79 5.79A<br>Aeronautical radionavigation<br>5.72 5.82 | 5.77 5.78 5.82 | | 435-495<br>MARITIME MOBILE 5.79 5.79A<br>Aeronautical radionavigation<br>5.82 US231 US294 | 435-495<br>MARITIME MOBILE 5.79 5.79A<br>5.82 US231 US294 | |
| 495-505<br>MOBILE (distress and calling)<br>5.83 | | | 495-505<br>MOBILE (distress and calling)<br>5.83 | | |
| 505-526.5<br>MARITIME MOBILE 5.79 5.79A 5.84<br>AERONAUTICAL RADIONAVIGATION<br>5.72 | 505-510<br>MARITIME MOBILE 5.79 | 505-526.5<br>MARITIME MOBILE 5.79 5.79A 5.84<br>AERONAUTICAL RADIONAVIGATION<br>Aeronautical mobile<br>Land mobile | 505-510<br>MARITIME MOBILE 5.79 | | Maritime (80) |
| | 510-525<br>MOBILE 5.79A 5.84<br>AERONAUTICAL RADIONAVIGATION | | 510-525<br>MARITIME MOBILE (ships only) 5.79A 5.84<br>AERONAUTICAL RADIONAVIGATION (radiobeacons) US18<br>US14 US225 | | Maritime (80)<br>Aviation (87) |

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|---|---|---|---|---|---|
| 526.5-1606.5<br>BROADCASTING<br><br>5.87 5.87A | 525-535<br>BROADCASTING 5.86<br>AERONAUTICAL RADIONAVIGATION | 526.5-535<br>BROADCASTING<br>Mobile<br>5.88 | 525-535<br>MOBILE US221<br>AERONAUTICAL RADIONAVIGATION (radiobeacons) US18<br>US239 | | Aviation (87)<br>Private Land Mobile (90) |
| | 535-1605<br>BROADCASTING | 535-1606.5<br>BROADCASTING | 535-1605 | 535-1605<br>BROADCASTING<br>NG1 NG128 | Radio Broadcast (AM)(73)<br>Alaska Fixed (80)<br>Private Land Mobile (90) |
| 1606.5-1625<br>FIXED<br>MARITIME MOBILE 5.90<br>LAND MOBILE<br>5.92 | 1605-1625<br>BROADCASTING 5.89<br>5.90 | 1606.5-1800<br>FIXED<br>MOBILE<br>RADIOLOCATION<br>RADIONAVIGATION | 1605-1615<br>MOBILE US221 G127<br>1615-1705<br>US299 | 1605-1705<br>BROADCASTING 5.89<br>US299 NG1 NG128 | |
| 1625-1635<br>RADIOLOCATION<br>5.93 | 1625-1705<br>FIXED<br>MOBILE<br>BROADCASTING 5.89<br>Radiolocation<br>5.90 | | | | |
| 1635-1800<br>FIXED<br>MARITIME MOBILE 5.90<br>LAND MOBILE<br>5.92 5.96 | 1705-1800<br>FIXED<br>MOBILE<br>RADIOLOCATION<br>AERONAUTICAL RADIONAVIGATION | 5.91 | 1705-1800<br>FIXED<br>MOBILE<br>RADIOLOCATION<br>US240 | | Maritime (80)<br>Private Land Mobile (90) |
| 1800-1810<br>RADIOLOCATION<br>5.93 | 1800-1850<br>AMATEUR | 1800-2000<br>AMATEUR<br>FIXED<br>MOBILE except aeronautical mobile<br>RADIONAVIGATION<br>Radiolocation | 1800-1900 | 1800-1900<br>AMATEUR | Amateur (97) |
| 1810-1850<br>AMATEUR<br>5.98 5.99 5.100 5.101 | | | | | |
| 1850-2000<br>FIXED<br>MOBILE except aeronautical mobile<br>5.92 5.96 5.103 | 1850-2000<br>AMATEUR<br>FIXED<br>MOBILE except aeronautical mobile<br>RADIOLOCATION<br>RADIONAVIGATION<br>5.102 | 5.97 | 1900-2000<br>RADIOLOCATION<br>US290 | | Private Land Mobile (90)<br>Amateur (97) |
| 2000-2025<br>FIXED<br>MOBILE except aeronautical mobile (R)<br>5.92 5.103 | 2000-2065<br>FIXED<br>MOBILE | | 2000-2065<br>FIXED<br>MOBILE<br>US340 | 2000-2065<br>MARITIME MOBILE NG19<br>US340 | Maritime (80) |
| 2025-2045<br>FIXED<br>MOBILE except aeronautical mobile (R)<br>Meteorological aids 5.104<br>5.92 5.103 | | | | | |

Table of Frequency Allocations — 2065-4438 kHz (MF/HF) — Page 5

| International Table | | | United States Table | | FCC Rule Part(s) |
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| Region 1 Table | Region 2 Table | Region 3 Table | Federal Table | Non-Federal Table | |
| 2045-2160<br>FIXED<br>MARITIME MOBILE<br>LAND MOBILE<br>5.92 | (See previous page) | | (See previous page) | | |
| | 2065-2107<br>MARITIME MOBILE 5.105<br>5.106 | | 2065-2107<br>MARITIME MOBILE 5.105<br>US296 US340 | | Maritime (80) |
| 2160-2170<br>RADIOLOCATION<br>5.93 5.107 | 2107-2170<br>FIXED<br>MOBILE | | 2107-2170<br>FIXED<br>MOBILE<br>US340 | 2107-2170<br>FIXED<br>MOBILE except aeronautical mobile NG19<br>US340 | Maritime (80)<br>Private Land Mobile (90) |
| 2170-2173.5<br>MARITIME MOBILE | | | 2170-2173.5<br>MARITIME MOBILE (telephony)<br>US340 | 2170-2173.5<br>MARITIME MOBILE<br>US340 | Maritime (80) |
| 2173.5-2190.5<br>MOBILE (distress and calling)<br>5.108 5.109 5.110 5.111 | | | 2173.5-2190.5<br>MOBILE (distress and calling)<br>5.108 5.109 5.110 5.111 US279 US340 | | Maritime (80)<br>Aviation (87) |
| 2190.5-2194<br>MARITIME MOBILE | | | 2190.5-2194<br>MARITIME MOBILE (telephony)<br>US340 | 2190.5-2194<br>MARITIME MOBILE<br>US340 | Maritime (80) |
| 2194-2300<br>FIXED<br>MOBILE except aeronautical mobile (R)<br>5.92 5.103 5.112 | 2194-2300<br>FIXED<br>MOBILE<br>5.112 | | 2194-2495<br>FIXED<br>MOBILE<br>US340 | 2194-2495<br>FIXED<br>MOBILE except aeronautical mobile NG19<br>US340 | Maritime (80)<br>Private Land Mobile (90) |
| 2300-2498<br>FIXED<br>MOBILE except aeronautical mobile (R)<br>BROADCASTING 5.113<br>5.103 | 2300-2495<br>FIXED<br>MOBILE<br>BROADCASTING 5.113 | | | | |
| 2498-2501<br>STANDARD FREQUENCY AND TIME SIGNAL (2500 kHz) | 2495-2501<br>STANDARD FREQUENCY AND TIME SIGNAL (2500 kHz) | | 2495-2505<br>STANDARD FREQUENCY AND TIME SIGNAL (2500 kHz) | | |
| 2501-2502<br>STANDARD FREQUENCY AND TIME SIGNAL<br>Space research | | | | | |
| 2502-2625<br>FIXED<br>MOBILE except aeronautical mobile (R)<br>5.92 5.103 5.114 | 2502-2505<br>STANDARD FREQUENCY AND TIME SIGNAL | | US1 US340 | | |
| 2625-2650<br>MARITIME MOBILE<br>MARITIME RADIONAVIGATION<br>5.92 | 2505-2850<br>FIXED<br>MOBILE | | 2505-2850<br>FIXED<br>MOBILE US285 | 2505-2850<br>FIXED<br>MOBILE except aeronautical mobile US285 | Maritime (80)<br>Aviation (87)<br>Private Land Mobile (90) |
| 2650-2850<br>FIXED<br>MOBILE except aeronautical mobile (R)<br>5.92 5.103 | | | US340 | US340 | |

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|---|---|---|---|---|---|
| 2850-3025<br>AERONAUTICAL MOBILE (R)<br>5.111 5.115 | | | 2850-3025<br>AERONAUTICAL MOBILE (R)<br>5.111 5.115 US283 US340 | | Aviation (87) |
| 3025-3155<br>AERONAUTICAL MOBILE (OR) | | | 3025-3155<br>AERONAUTICAL MOBILE (OR)<br>US340 | | |
| 3155-3200<br>FIXED<br>MOBILE except aeronautical mobile (R)<br>5.116 5.117 | | | 3155-3230<br>FIXED<br>MOBILE except aeronautical mobile (R)<br>US340 | | Maritime (80)<br>Private Land Mobile (90) |
| 3200-3230<br>FIXED<br>MOBILE except aeronautical mobile (R)<br>BROADCASTING 5.113<br>5.116 | | | | | |
| 3230-3400<br>FIXED<br>MOBILE except aeronautical mobile<br>BROADCASTING 5.113<br>5.116 5.118 | | | 3230-3400<br>FIXED<br>MOBILE except aeronautical mobile<br>Radiolocation<br>US340 | | Maritime (80)<br>Aviation (87)<br>Private Land Mobile (90) |
| 3400-3500<br>AERONAUTICAL MOBILE (R) | | | 3400-3500<br>AERONAUTICAL MOBILE (R)<br>US283 US340 | | Aviation (87) |
| 3500-3800<br>AMATEUR<br>FIXED<br>MOBILE except aeronautical mobile<br>5.92 | 3500-3750<br>AMATEUR<br>5.119 | 3500-3900<br>AMATEUR<br>FIXED<br>MOBILE | 3500-4000 | 3500-4000<br>AMATEUR | Amateur (97) |
| 3800-3900<br>FIXED<br>AERONAUTICAL MOBILE (OR)<br>LAND MOBILE | 3750-4000<br>AMATEUR<br>FIXED<br>MOBILE except aeronautical mobile (R) | | | | |
| 3900-3950<br>AERONAUTICAL MOBILE (OR)<br>5.123 | | 3900-3950<br>AERONAUTICAL MOBILE<br>BROADCASTING | | | |
| 3950-4000<br>FIXED<br>BROADCASTING | | 3950-4000<br>FIXED<br>BROADCASTING | | | |
| | 5.122 5.125 | 5.126 | US340 | US340 | |
| 4000-4063<br>FIXED<br>MARITIME MOBILE 5.127<br>5.126 | | | 4000-4063<br>FIXED<br>MARITIME MOBILE<br>US340 | | Maritime (80) |
| 4063-4438<br>MARITIME MOBILE 5.79A 5.109 5.110 5.130 5.131 5.132<br>5.128 5.129 | | | 4063-4438<br>MARITIME MOBILE 5.79A 5.109 5.110 5.130 5.131 5.132 US82<br>US296 US340 | | Maritime (80)<br>Aviation (87) |

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| 4438-4650<br>FIXED<br>MOBILE except aeronautical mobile (R) | | 4438-4650<br>FIXED<br>MOBILE except aeronautical mobile | 4438-4650<br>FIXED<br>MOBILE except aeronautical mobile (R)<br>US340 | | | Maritime (80)<br>Aviation (87)<br>Private Land Mobile (90) |
| 4650-4700<br>AERONAUTICAL MOBILE (R) | | | 4650-4700<br>AERONAUTICAL MOBILE (R)<br>US282 US283 US340 | | | Aviation (87) |
| 4700-4750<br>AERONAUTICAL MOBILE (OR) | | | 4700-4750<br>AERONAUTICAL MOBILE (OR)<br>US340 | | | |
| 4750-4850<br>FIXED<br>AERONAUTICAL MOBILE (OR)<br>LAND MOBILE<br>BROADCASTING 5.113 | 4750-4850<br>FIXED<br>MOBILE except aeronautical mobile (R)<br>BROADCASTING 5.113 | 4750-4850<br>FIXED<br>BROADCASTING 5.113<br>Land mobile | 4750-4850<br>FIXED<br>MOBILE except aeronautical mobile (R)<br>US340 | | | Maritime (80)<br>Private Land Mobile (90) |
| 4850-4995<br>FIXED<br>LAND MOBILE<br>BROADCASTING 5.113 | | | 4850-4995<br>FIXED<br>MOBILE<br>US340 | | 4850-4995<br>FIXED<br>US340 | Aviation (87)<br>Private Land Mobile (90) |
| 4995-5003<br>STANDARD FREQUENCY AND TIME SIGNAL (5000 kHz) | | | 4995-5005<br>STANDARD FREQUENCY AND TIME SIGNAL (5000 kHz)<br>US1 US340 | | | |
| 5003-5005<br>STANDARD FREQUENCY AND TIME SIGNAL<br>Space research | | | | | | |
| 5005-5060<br>FIXED<br>BROADCASTING 5.113 | | | 5005-5060<br>FIXED<br>US340 | | | Maritime (80)<br>Aviation (87)<br>Private Land Mobile (90) |
| 5060-5250<br>FIXED<br>Mobile except aeronautical mobile<br>5.133 | | | 5060-5450<br>FIXED<br>Mobile except aeronautical mobile<br>US212 US340 US381 | | | Maritime (80)<br>Aviation (87)<br>Private Land Mobile (90)<br>Amateur (97) |
| 5250-5450<br>FIXED<br>MOBILE except aeronautical mobile | | | | | | |
| 5450-5480<br>FIXED<br>AERONAUTICAL MOBILE (OR)<br>LAND MOBILE | 5450-5480<br>AERONAUTICAL MOBILE (R) | 5450-5480<br>FIXED<br>AERONAUTICAL MOBILE (OR)<br>LAND MOBILE | 5450-5680<br>AERONAUTICAL MOBILE (R)<br>5.111 5.115 US283 US340 | | | Aviation (87) |
| 5480-5680<br>AERONAUTICAL MOBILE (R)<br>5.111 5.115 | | | | | | |
| 5680-5730<br>AERONAUTICAL MOBILE (OR)<br>5.111 5.115 | | | 5680-5730<br>AERONAUTICAL MOBILE (OR)<br>5.111 5.115 US340 | | | |

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|---|---|---|---|---|---|
| 5730-5900<br>FIXED<br>LAND MOBILE | 5730-5900<br>FIXED<br>MOBILE except aeronautical mobile (R) | 5730-5900<br>FIXED<br>Mobile except aeronautical mobile (R) | 5730-5900<br>FIXED<br>MOBILE except aeronautical mobile (R)<br>US340 | | Maritime (80)<br>Aviation (87)<br>Private Land Mobile (90) |
| 5900-5950<br>BROADCASTING 5.134<br>5.136 | | | 5900-5950<br>BROADCASTING 5.134<br>US340 US366 | | Radio Broadcast (HF)(73) |
| 5950-6200<br>BROADCASTING | | | 5950-6200<br>BROADCASTING<br>US340 | | |
| 6200-6525<br>MARITIME MOBILE 5.109 5.110 5.130 5.132<br>5.137 | | | 6200-6525<br>MARITIME MOBILE 5.109 5.110 5.130 5.132 US82<br>US296 US340 | | Maritime (80) |
| 6525-6685<br>AERONAUTICAL MOBILE (R) | | | 6525-6685<br>AERONAUTICAL MOBILE (R)<br>US283 US340 | | Aviation (87) |
| 6685-6765<br>AERONAUTICAL MOBILE (OR) | | | 6685-6765<br>AERONAUTICAL MOBILE (OR)<br>US340 | | |
| 6765-7000<br>FIXED<br>MOBILE except aeronautical mobile (R)<br>5.138 5.138A 5.139 | | | 6765-7000<br>FIXED<br>MOBILE except aeronautical mobile (R)<br>5.138 US340 US394 | | ISM Equipment (18)<br>Private Land Mobile (90) |
| 7000-7100<br>AMATEUR<br>AMATEUR-SATELLITE<br>5.140 5.141 5.141A | | | 7000-7100<br>US340 | 7000-7100<br>AMATEUR<br>AMATEUR-SATELLITE<br>US340 | Amateur (97) |
| 7100-7200<br>AMATEUR<br>5.141A 5.141B 5.141C 5.142 | | | 7100-7300<br>US340 US395 | 7100-7300<br>AMATEUR<br>5.142 US340 US395 | Radio Broadcast (HF)(73)<br>Amateur (97) |
| 7200-7300<br>BROADCASTING | 7200-7300<br>AMATEUR<br>5.142 | 7200-7300<br>BROADCASTING | | | |
| 7300-7400<br>BROADCASTING 5.134<br>5.143 5.143A 5.143B 5.143C 5.143D | | | 7300-7400<br>BROADCASTING 5.134<br>US340 US366 US396 | | Radio Broadcast (HF)(73)<br>Maritime (80)<br>Private Land Mobile (90) |
| 7400-7450<br>BROADCASTING<br>5.143B 5.143C | 7400-7450<br>FIXED<br>MOBILE except aeronautical mobile (R) | 7400-7450<br>BROADCASTING<br>5.143A 5.143C | 7400-8100<br>FIXED<br>MOBILE except aeronautical mobile (R)<br>US340 | | Radio Broadcast (HF)(73)<br>Maritime (80)<br>Aviation (87)<br>Private Land Mobile (90) |
| 7450-8100<br>FIXED<br>MOBILE except aeronautical mobile (R)<br>5.143E 5.144 | | | | | |

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| 8100-8195<br>FIXED<br>MARITIME MOBILE | | | 8100-8195<br>FIXED<br>MARITIME MOBILE<br>US340 | | Maritime (80) |
| 8195-8815<br>MARITIME MOBILE 5.109 5.110 5.132 5.145<br>5.111 | | | 8195-8815<br>MARITIME MOBILE 5.109 5.110 5.132 5.145 US82<br>5.111 US296 US340 | | Maritime (80)<br>Aviation (87) |
| 8815-8965<br>AERONAUTICAL MOBILE (R) | | | 8815-8965<br>AERONAUTICAL MOBILE (R)<br>US340 | | Aviation (87) |
| 8965-9040<br>AERONAUTICAL MOBILE (OR) | | | 8965-9040<br>AERONAUTICAL MOBILE (OR)<br>US340 | | |
| 9040-9400<br>FIXED | | | 9040-9400<br>FIXED<br>US340 | | Maritime (80)<br>Private Land Mobile (90) |
| 9400-9500<br>BROADCASTING 5.134<br>5.146 | | | 9400-9500<br>BROADCASTING 5.134<br>US340 US366 | | Radio Broadcast (HF)(73) |
| 9500-9900<br>BROADCASTING<br>5.147 | | | 9500-9900<br>BROADCASTING<br>US340 US367 | | |
| 9900-9995<br>FIXED | | | 9900-9995<br>FIXED<br>US340 | | Private Land Mobile (90) |
| 9995-10003<br>STANDARD FREQUENCY AND TIME SIGNAL (10000 kHz)<br>5.111 | | | 9995-10005<br>STANDARD FREQUENCY AND TIME SIGNAL (10000 kHz)<br>5.111 US1 US340 | | |
| 10003-10005<br>STANDARD FREQUENCY AND TIME SIGNAL<br>Space research<br>5.111 | | | | | |
| 10005-10100<br>AERONAUTICAL MOBILE (R)<br>5.111 | | | 10005-10100<br>AERONAUTICAL MOBILE (R)<br>5.111 US283 US340 | | Aviation (87) |
| 10100-10150<br>FIXED<br>Amateur | | | 10100-10150<br>US247 US340 | 10100-10150<br>AMATEUR US247<br>US340 | Amateur (97) |
| 10150-11175<br>FIXED<br>Mobile except aeronautical mobile (R) | | | 10150-11175<br>FIXED<br>Mobile except aeronautical mobile (R)<br>US340 | | Private Land Mobile (90) |

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| 11175-11275<br>AERONAUTICAL MOBILE (OR) | 11175-11275<br>AERONAUTICAL MOBILE (OR)<br>US340 | | |
| 11275-11400<br>AERONAUTICAL MOBILE (R) | 11275-11400<br>AERONAUTICAL MOBILE (R)<br>US283 US340 | | Aviation (87) |
| 11400-11600<br>FIXED | 11400-11600<br>FIXED<br>US340 | | Private Land Mobile (90) |
| 11600-11650<br>BROADCASTING 5.134<br>5.146 | 11600-11650<br>BROADCASTING 5.134<br>US340 US366 | | Radio Broadcast (HF)(73) |
| 11650-12050<br>BROADCASTING<br>5.147 | 11650-12050<br>BROADCASTING<br>US340 US367 | | |
| 12050-12100<br>BROADCASTING 5.134<br>5.146 | 12050-12100<br>BROADCASTING 5.134<br>US340 US366 | | |
| 12100-12230<br>FIXED | 12100-12230<br>FIXED<br>US340 | | Private Land Mobile (90) |
| 12230-13200<br>MARITIME MOBILE 5.109 5.110 5.132 5.145 | 12230-13200<br>MARITIME MOBILE 5.109 5.110 5.132 5.145 US82<br>US296 US340 | | Maritime (80) |
| 13200-13260<br>AERONAUTICAL MOBILE (OR) | 13200-13260<br>AERONAUTICAL MOBILE (OR)<br>US340 | | |
| 13260-13360<br>AERONAUTICAL MOBILE (R) | 13260-13360<br>AERONAUTICAL MOBILE (R)<br>US283 US340 | | Aviation (87) |
| 13360-13410<br>FIXED<br>RADIO ASTRONOMY<br>5.149 | 13360-13410<br>RADIO ASTRONOMY<br>US342 G115 | 13360-13410<br>RADIO ASTRONOMY<br>US342 | |
| 13410-13570<br>FIXED<br>Mobile except aeronautical mobile (R)<br>5.150 | 13410-13570<br>FIXED<br>Mobile except aeronautical mobile (R)<br>5.150 US340 | 13410-13570<br>FIXED<br>5.150 US340 | ISM Equipment (18)<br>Private Land Mobile (90) |
| 13570-13600<br>BROADCASTING 5.134<br>5.151 | 13570-13600<br>BROADCASTING 5.134<br>US340 US366 | | Radio Broadcast (HF)(73) |

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| 13600-13800<br>BROADCASTING | | | 13600-13800<br>BROADCASTING<br>US340 | | Radio Broadcast (HF)(73) |
| 13800-13870<br>BROADCASTING 5.134<br>5.151 | | | 13800-13870<br>BROADCASTING 5.134<br>US340 US366 | | |
| 13870-14000<br>FIXED<br>Mobile except aeronautical mobile (R) | | | 13870-14000<br>FIXED<br>Mobile except aeronautical mobile (R)<br>US340 | 13870-14000<br>FIXED<br>US340 | Private Land Mobile (90) |
| 14000-14250<br>AMATEUR<br>AMATEUR-SATELLITE | | | 14000-14350 | 14000-14250<br>AMATEUR<br>AMATEUR-SATELLITE<br>US340 | Amateur (97) |
| 14250-14350<br>AMATEUR<br>5.152 | | | US340 | 14250-14350<br>AMATEUR<br>US340 | |
| 14350-14990<br>FIXED<br>Mobile except aeronautical mobile (R) | | | 14350-14990<br>FIXED<br>Mobile except aeronautical mobile (R)<br>US340 | 14350-14990<br>FIXED<br>US340 | Private Land Mobile (90) |
| 14990-15005<br>STANDARD FREQUENCY AND TIME SIGNAL (15000 kHz)<br>5.111 | | | 14990-15010<br>STANDARD FREQUENCY AND TIME SIGNAL (15000 kHz) | | |
| 15005-15010<br>STANDARD FREQUENCY AND TIME SIGNAL<br>Space research | | | 5.111 US1 US340 | | |
| 15010-15100<br>AERONAUTICAL MOBILE (OR) | | | 15010-15100<br>AERONAUTICAL MOBILE (OR)<br>US340 | | |
| 15100-15600<br>BROADCASTING | | | 15100-15600<br>BROADCASTING<br>US340 | | Radio Broadcast (HF)(73) |
| 15600-15800<br>BROADCASTING 5.134<br>5.146 | | | 15600-15800<br>BROADCASTING 5.134<br>US340 US366 | | |
| 15800-16360<br>FIXED<br>5.153 | | | 15800-16360<br>FIXED<br>US340 | | Private Land Mobile (90) |

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|---|---|---|---|
| 16360-17410<br>MARITIME MOBILE 5.109 5.110 5.132 5.145 | 16360-17410<br>MARITIME MOBILE 5.109 5.110 5.132 5.145 US82<br>US296 US340 | | Maritime (80) |
| 17410-17480<br>FIXED | 17410-17480<br>FIXED<br>US340 | | Private Land Mobile (90) |
| 17480-17550<br>BROADCASTING 5.134<br>5.146 | 17480-17550<br>BROADCASTING 5.134<br>US340 US366 | | Radio Broadcast (HF)(73) |
| 17550-17900<br>BROADCASTING | 17550-17900<br>BROADCASTING<br>US340 | | |
| 17900-17970<br>AERONAUTICAL MOBILE (R) | 17900-17970<br>AERONAUTICAL MOBILE (R)<br>US283 US340 | | Aviation (87) |
| 17970-18030<br>AERONAUTICAL MOBILE (OR) | 17970-18030<br>AERONAUTICAL MOBILE (OR)<br>US340 | | |
| 18030-18052<br>FIXED | 18030-18068<br>FIXED | | Maritime (80)<br>Private Land Mobile (90) |
| 18052-18068<br>FIXED<br>Space research | US340 | | |
| 18068-18168<br>AMATEUR<br>AMATEUR-SATELLITE<br>5.154 | 18068-18168<br>US340 | 18068-18168<br>AMATEUR<br>AMATEUR-SATELLITE<br>US340 | Amateur (97) |
| 18168-18780<br>FIXED<br>Mobile except aeronautical mobile | 18168-18780<br>FIXED<br>Mobile<br>US340 | | Maritime (80)<br>Private Land Mobile (90) |
| 18780-18900<br>MARITIME MOBILE | 18780-18900<br>MARITIME MOBILE US82<br>US296 US340 | | Maritime (80) |
| 18900-19020<br>BROADCASTING 5.134<br>5.146 | 18900-19020<br>BROADCASTING 5.134<br>US340 US366 | | Radio Broadcast (HF)(73) |
| 19020-19680<br>FIXED | 19020-19680<br>FIXED<br>US340 | | Private Land Mobile (90) |
| 19680-19800<br>MARITIME MOBILE 5.132 | 19680-19800<br>MARITIME MOBILE 5.132<br>US340 | | Maritime (80) |

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| 19800-19990<br>FIXED | | | 19800-19990<br>FIXED<br>US340 | | Private Land Mobile (90) |
| 19990-19995<br>STANDARD FREQUENCY AND TIME SIGNAL<br>Space research<br>5.111 | | | 19990-20010<br>STANDARD FREQUENCY AND TIME SIGNAL (20000 kHz)<br>5.111 US1 US340 | | |
| 19995-20010<br>STANDARD FREQUENCY AND TIME SIGNAL (20000 kHz)<br>5.111 | | | | | |
| 20010-21000<br>FIXED<br>Mobile | | | 20010-21000<br>FIXED<br>Mobile<br>US340 | 20010-21000<br>FIXED<br>US340 | Private Land Mobile (90) |
| 21000-21450<br>AMATEUR<br>AMATEUR-SATELLITE | | | 21000-21450<br>US340 | 21000-21450<br>AMATEUR<br>AMATEUR-SATELLITE<br>US340 | Amateur (97) |
| 21450-21850<br>BROADCASTING | | | 21450-21850<br>BROADCASTING<br>US340 | | Radio Broadcast (HF)(73) |
| 21850-21870<br>FIXED 5.155A<br>5.155 | | | 21850-21924<br>FIXED<br>US340 | | Aviation (87)<br>Private Land Mobile (90) |
| 21870-21924<br>FIXED 5.155B | | | | | |
| 21924-22000<br>AERONAUTICAL MOBILE (R) | | | 21924-22000<br>AERONAUTICAL MOBILE (R)<br>US340 | | Aviation (87) |
| 22000-22855<br>MARITIME MOBILE 5.132<br>5.156 | | | 22000-22855<br>MARITIME MOBILE 5.132 US82<br>US296 US340 | | Maritime (80) |
| 22855-23000<br>FIXED<br>5.156 | | | 22855-23000<br>FIXED<br>US340 | | Private Land Mobile (90) |
| 23000-23200<br>FIXED<br>Mobile except aeronautical mobile (R)<br>5.156 | | | 23000-23200<br>FIXED<br>Mobile except aeronautical mobile (R)<br>US340 | 23000-23200<br>FIXED<br>US340 | |
| 23200-23350<br>FIXED 5.156A<br>AERONAUTICAL MOBILE (OR) | | | 23200-23350<br>AERONAUTICAL MOBILE (OR)<br>US340 | | |

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|---|---|---|---|
| 23350-24000<br>FIXED<br>MOBILE except aeronautical mobile 5.157 | 23350-24890<br>FIXED<br>MOBILE except aeronautical mobile<br>US340 | 23350-24890<br>FIXED<br>US340 | Private Land Mobile (90) |
| 24000-24890<br>FIXED<br>LAND MOBILE | | | |
| 24890-24990<br>AMATEUR<br>AMATEUR-SATELLITE | 24890-24990<br>US340 | 24890-24990<br>AMATEUR<br>AMATEUR-SATELLITE<br>US340 | Amateur (97) |
| 24990-25005<br>STANDARD FREQUENCY AND TIME SIGNAL (25000 kHz) | 24990-25010<br>STANDARD FREQUENCY AND TIME SIGNAL (25000 kHz)<br>US1 US340 | | |
| 25005-25010<br>STANDARD FREQUENCY AND TIME SIGNAL<br>Space research | | | |
| 25010-25070<br>FIXED<br>MOBILE except aeronautical mobile | 25010-25070<br>US340 | 25010-25070<br>LAND MOBILE<br>US340 NG112 | Private Land Mobile (90) |
| 25070-25210<br>MARITIME MOBILE | 25070-25210<br>MARITIME MOBILE US82<br>US281 US296 US340 | 25070-25210<br>MARITIME MOBILE US82<br>US281 US296 US340 NG112 | Maritime (80)<br>Private Land Mobile (90) |
| 25210-25550<br>FIXED<br>MOBILE except aeronautical mobile | 25210-25330<br>US340 | 25210-25330<br>LAND MOBILE<br>US340 | Private Land Mobile (90) |
| | 25330-25550<br>FIXED<br>MOBILE except aeronautical mobile<br>US340 | 25330-25550<br>US340 | |
| 25550-25670<br>RADIO ASTRONOMY<br>5.149 | 25550-25670<br>RADIO ASTRONOMY US74<br>US342 | | |
| 25670-26100<br>BROADCASTING | 25670-26100<br>BROADCASTING<br>US25 US340 | | Radio Broadcast (HF)(73)<br>Remote Pickup (74D) |
| 26100-26175<br>MARITIME MOBILE 5.132 | 26100-26175<br>MARITIME MOBILE 5.132<br>US25 US340 | | Remote Pickup (74D)<br>Low Power Auxiliary (74H)<br>Maritime (80) |
| 26175-27500<br>FIXED<br>MOBILE except aeronautical mobile | 26175-26480<br>US340 | 26175-26480<br>LAND MOBILE<br>US340 | Remote Pickup (74D)<br>Low Power Auxiliary (74H) |
| | 26480-26950<br>FIXED<br>MOBILE except aeronautical mobile<br>US340 | 26480-26950<br>US340 | |
| 5.150 | | | |

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| | | | | 26.96-27.23<br>MOBILE except aeronautical mobile<br>5.150 US340 | ISM Equipment (18)<br>Personal Radio (95) |
| | | | | 27.23-27.41<br>FIXED<br>MOBILE except aeronautical mobile<br>5.150 US340 | ISM Equipment (18)<br>Private Land Mobile (90)<br>Personal Radio (95) |
| 27.5-28<br>METEOROLOGICAL AIDS<br>FIXED<br>MOBILE | | | 27.41-27.54<br><br>US340 | 27.41-27.54<br>FIXED<br>LAND MOBILE<br>US340 | Private Land Mobile (90) |
| | | | 27.54-28<br>FIXED<br>MOBILE<br>US298 US340 | 27.54-28<br><br><br>US298 US340 | |
| 28-29.7<br>AMATEUR<br>AMATEUR-SATELLITE | | | 28-29.89<br><br><br><br><br><br><br>US340 | 28-29.7<br>AMATEUR<br>AMATEUR-SATELLITE<br>US340 | Amateur (97) |
| 29.7-30.005<br>FIXED<br>MOBILE | | | | 29.7-29.8<br>LAND MOBILE<br>US340 | Private Land Mobile (90) |
| | | | | 29.8-29.89<br>FIXED<br>US340 | |
| | | | 29.89-29.91<br>FIXED<br>MOBILE<br>US340 | 29.89-29.91<br><br><br>US340 | |
| | | | 29.91-30<br><br>US340 | 29.91-30<br>FIXED<br>US340 | |
| 30.005-30.01<br>SPACE OPERATION (satellite identification)<br>FIXED<br>MOBILE<br>SPACE RESEARCH | | | 30-30.56<br>FIXED<br>MOBILE | 30-30.56 | |
| 30.01-37.5<br>FIXED<br>MOBILE | | | | | |

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|---|---|---|---|
| | 30.56-32 | 30.56-32<br>FIXED<br>LAND MOBILE<br>NG124 | Private Land Mobile (90) |
| | 32-33<br>FIXED<br>MOBILE | 32-33 | |
| | 33-34 | 33-34<br>FIXED<br>LAND MOBILE<br>NG124 | Private Land Mobile (90) |
| | 34-35<br>FIXED<br>MOBILE | 34-35 | |
| | 35-36 | 35-36<br>FIXED<br>LAND MOBILE | Public Mobile (22)<br>Private Land Mobile (90) |
| | 36-37<br>FIXED<br>MOBILE<br>US220 | 36-37<br>US220 | |
| | 37-37.5 | 37-37.5<br>LAND MOBILE<br>NG124 | Private Land Mobile (90) |
| 37.5-38.25<br>FIXED<br>MOBILE<br>Radio astronomy | 37.5-38<br>Radio astronomy<br>US342 | 37.5-38<br>LAND MOBILE<br>Radio astronomy<br>US342 NG59 NG124 | |
| 5.149 | 38-38.25<br>FIXED<br>MOBILE<br>RADIO ASTRONOMY<br>US81 US342 | 38-38.25<br>RADIO ASTRONOMY<br>US81 US342 | |
| 38.25-39.986<br>FIXED<br>MOBILE | 38.25-39<br>FIXED<br>MOBILE | 38.25-39 | |
| | 39-40 | 39-40<br>LAND MOBILE<br>NG124 | Private Land Mobile (90) |
| 39.986-40.02<br>FIXED<br>MOBILE<br>Space research | 40-42<br>FIXED<br>MOBILE | 40-42 | ISM Equipment (18)<br>Private Land Mobile (90) |
| 40.02-40.98<br>FIXED<br>MOBILE<br>5.150 | 5.150 US210 US220 | 5.150 US210 US220 | |

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| 41.015-44<br>FIXED<br>MOBILE<br>5.160 5.161 | | | 42-46.6 | 42-43.69<br>FIXED<br>LAND MOBILE<br>NG124 NG141 | Public Mobile (22)<br>Private Land Mobile (90) |
| 44-47<br>FIXED<br>MOBILE<br>5.162 5.162A | | | | 43.69-46.6<br>LAND MOBILE<br>NG124 NG141 | Private Land Mobile (90) |
| | | | 46.6-47<br>FIXED<br>MOBILE | 46.6-47 | |
| 47-68<br>BROADCASTING<br>5.162A 5.163 5.164 5.165 5.169 5.171 | 47-50<br>FIXED<br>MOBILE | 47-50<br>FIXED<br>MOBILE<br>BROADCASTING<br>5.162A | 47-49.6 | 47-49.6<br>LAND MOBILE<br>NG124 | Private Land Mobile (90) |
| | | | 49.6-50<br>FIXED<br>MOBILE | 49.6-50 | |
| | 50-54<br>AMATEUR<br>5.162A 5.166 5.167 5.168 5.170 | | 50-73 | 50-54<br>AMATEUR | Amateur (97) |
| | 54-68<br>BROADCASTING<br>Fixed<br>Mobile<br>5.172 | 54-68<br>FIXED<br>MOBILE<br>BROADCASTING<br>5.162A | | 54-72<br>BROADCASTING<br>NG115 NG128 NG142 NG149 | Broadcast Radio (TV)(73)<br>LPTV, TV Translator/Booster (74G)<br>Low Power Auxiliary (74H) |
| 68-74.8<br>FIXED<br>MOBILE except aeronautical mobile | 68-72<br>BROADCASTING<br>Fixed<br>Mobile<br>5.173 | 68-74.8<br>FIXED<br>MOBILE | | | |
| | 72-73<br>FIXED<br>MOBILE | | | 72-73<br>FIXED<br>MOBILE<br>NG3 NG49 NG56 | Public Mobile (22)<br>Aviation (87)<br>Private Land Mobile (90)<br>Personal Radio (95) |
| | 73-74.6<br>RADIO ASTRONOMY<br>5.178 | | 73-74.6<br>RADIO ASTRONOMY US74<br>US246 | | |
| | 74.6-74.8<br>FIXED<br>MOBILE | | 74.6-74.8<br>FIXED<br>MOBILE<br>US273 | | Private Land Mobile (90) |
| 5.149 5.174 5.175 5.177 5.179 | | 5.149 5.176 5.179 | | | |

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| 74.8-75.2<br>AERONAUTICAL RADIONAVIGATION<br>5.180 5.181 | | | 74.8-75.2<br>AERONAUTICAL RADIONAVIGATION<br>5.180 | | Aviation (87) |
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| | 75.4-76<br>FIXED<br>MOBILE | 75.4-87<br>FIXED<br>MOBILE<br>5.182 5.183 5.188 | 75.4-88 | 75.4-76<br>FIXED<br>MOBILE<br>NG3 NG49 NG56 | Public Mobile (22)<br>Aviation (87)<br>Private Land Mobile (90)<br>Personal Radio (95) |
| 5.175 5.179 5.184 5.187 | 76-88<br>BROADCASTING<br>Fixed<br>Mobile<br>5.185 | 87-100<br>FIXED<br>MOBILE<br>BROADCASTING | | 76-88<br>BROADCASTING<br>NG115 NG128 NG142 NG149 | Broadcast Radio (TV)(73)<br>LPTV, TV Translator/Booster (74G)<br>Low Power Auxiliary (74H) |
| 87.5-100<br>BROADCASTING<br>5.190 | 88-100<br>BROADCASTING | | 88-108<br>US93 | 88-108<br>BROADCASTING NG2<br>US93 NG128 | Broadcast Radio (FM)(73)<br>FM Translator/Booster (74L) |
| 100-108<br>BROADCASTING<br>5.192 5.194 | | | | | |
| 108-117.975<br>AERONAUTICAL RADIONAVIGATION<br>5.197 5.197A | | | 108-117.975<br>AERONAUTICAL RADIONAVIGATION<br>US93 US343 | | Aviation (87) |
| 117.975-137<br>AERONAUTICAL MOBILE (R)<br>5.111 5.198 5.199 5.200 5.201 5.202 5.203 5.203A 5.203B | | | 117.975-121.9375<br>AERONAUTICAL MOBILE (R)<br>5.111 5.198 5.199 5.200 US26 US28 | | |
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| | | | 123.0875-123.5875<br>AERONAUTICAL MOBILE<br>5.198 5.200 US32 US33 US112 | | |
| | | | 123.5875-128.8125<br>AERONAUTICAL MOBILE (R)<br>5.198 US26 | | |
| | | | 128.8125-132.0125<br>5.198 | 128.8125-132.0125<br>AERONAUTICAL MOBILE (R)<br>5.198 | |
| | | | 132.0125-136<br>AERONAUTICAL MOBILE (R)<br>5.198 US26 | | |
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| 137.175-137.825<br>SPACE OPERATION (space-to-Earth)<br>METEOROLOGICAL-SATELLITE (space-to-Earth)<br>MOBILE-SATELLITE (space-to-Earth) 5.208A 5.209<br>SPACE RESEARCH (space-to-Earth)<br>Fixed<br>Mobile except aeronautical mobile (R)<br>5.204 5.205 5.206 5.207 5.208 | | | 137.175-137.825<br>SPACE OPERATION (space-to-Earth)<br>METEOROLOGICAL-SATELLITE (space-to-Earth)<br>MOBILE-SATELLITE (space-to-Earth) US319 US320<br>SPACE RESEARCH (space-to-Earth)<br>5.208 | | |
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| 138-143.6<br>AERONAUTICAL MOBILE (OR)<br>5.210 5.211 5.212 5.214 | 138-143.6<br>FIXED<br>MOBILE<br>RADIOLOCATION<br>Space research (space-to-Earth) | 138-143.6<br>FIXED<br>MOBILE<br>Space research (space-to-Earth)<br>5.207 5.213 | 138-144<br>FIXED<br>MOBILE | 138-144 | |
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| 143.65-144<br>AERONAUTICAL MOBILE (OR)<br>5.210 5.211 5.212 5.214 | 143.65-144<br>FIXED<br>MOBILE<br>RADIOLOCATION<br>Space research (space-to-Earth) | 143.65-144<br>FIXED<br>MOBILE<br>Space research (space-to-Earth)<br>5.207 5.213 | G30 | | |

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| 149.9-150.05<br>MOBILE-SATELLITE (Earth-to-space) 5.209 5.224A<br>RADIONAVIGATION-SATELLITE 5.224B<br>5.220 5.222 5.223 | | | 149.9-150.05<br>MOBILE-SATELLITE (Earth-to-space) US319 US320<br>RADIONAVIGATION-SATELLITE<br>5.223 | | |
| 150.05-153<br>FIXED<br>MOBILE except aeronautical mobile<br>RADIO ASTRONOMY<br>5.149 | 150.05-156.7625<br>FIXED<br>MOBILE | | 150.05-150.8<br>FIXED<br>MOBILE<br>US216 G30 | 150.05-150.8<br>US216 | |
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| 153-154<br>FIXED<br>MOBILE except aeronautical mobile (R)<br>Meteorological aids | | | 152.855-156.2475 | 152.855-154<br>LAND MOBILE NG4<br>NG124 | Remote Pickup (74D)<br>Private Land Mobile (90) |
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| | | | 157.0375-157.1875<br>MARITIME MOBILE US214<br>5.226 US266 G109 | 157.0375-157.1875<br>5.226 US214 US266 | Maritime (80)<br>Private Land Mobile (90) |
| | | | 157.1875-161.575 | 157.1875-157.45<br>MOBILE except aeronautical mobile US266<br>5.226 NG111 | Maritime (80)<br>Aviation (87)<br>Private Land Mobile (90) |
| | | | | 157.45-161.575<br>FIXED<br>LAND MOBILE NG28 NG111 NG112<br>5.226 NG6 NG70 NG124 NG148 NG155 | Public Mobile (22)<br>Remote Pickup (74D)<br>Maritime (80)<br>Private Land Mobile (90) |
| | | | 161.575-161.625<br>5.226 US77 | 161.575-161.625<br>MARITIME MOBILE US77<br>5.226 NG6 NG17 | Public Mobile (22)<br>Maritime (80) |
| | | | 161.625-161.775 | 161.625-161.775<br>LAND MOBILE NG6<br>5.226 | Public Mobile (22)<br>Remote Pickup (74D)<br>Low Power Auxiliary (74H) |
| | | | 161.775-162.0125<br>5.226 US266 US399 | 161.775-162.0125<br>MOBILE except aeronautical mobile US266 NG6<br>5.226 US399 | Public Mobile (22)<br>Maritime (80)<br>Private Land Mobile (90) |
| | | | 162.0125-173.2<br>FIXED US13<br>MOBILE<br>5.226 US8 US11 US216 US300 US312 US399 G5 | 162.0125-173.2<br>5.226 US8 US11 US13 US216 US300 US312 US399 | Remote Pickup (74D)<br>Maritime (80)<br>Private Land Mobile (90) |
| | | | 173.2-173.4 | 173.2-173.4<br>FIXED<br>Land mobile | Private Land Mobile (90) |
| 5.226 5.229 | 5.226 5.230 5.231 5.232 | | 173.4-174<br>FIXED<br>MOBILE<br>G5 | 173.4-174 | |

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| 174-223<br>BROADCASTING<br><br>5.235 5.237 5.243 | 174-216<br>BROADCASTING<br>Fixed<br>Mobile<br>5.234 | 174-223<br>FIXED<br>MOBILE<br>BROADCASTING<br><br>5.233 5.238 5.240 5.245 | 174-216 | 174-216<br>BROADCASTING<br>NG115 NG128 NG142 NG149 | Broadcast Radio (TV)(73)<br>LPTV, TV Translator/Booster (74G)<br>Low Power Auxiliary (74H) |
| | 216-220<br>FIXED<br>MARITIME MOBILE<br>Radiolocation 5.241<br>5.242 | | 216-217<br>Fixed<br>Land mobile<br>Radiolocation 5.241 G2<br>US210 US229 | 216-219<br>FIXED<br>MOBILE except aeronautical mobile<br>US210 US229 NG173 | Maritime (80)<br>Private Land Mobile (90)<br>Personal Radio (95) |
| | | | 217-220<br>Fixed<br>Mobile<br>US210 US229 | 219-220<br>FIXED<br>MOBILE except aeronautical mobile<br>Amateur NG152<br>US210 US229 NG173 | Maritime (80)<br>Private Land Mobile (90)<br>Amateur (97) |
| | 220-225<br>AMATEUR<br>FIXED<br>MOBILE<br>Radiolocation 5.241 | | 220-222<br>FIXED<br>LAND MOBILE<br>Radiolocation 5.241 G2<br>US335 | 220-222<br>FIXED<br>LAND MOBILE<br>US335 | Private Land Mobile (90) |
| 223-230<br>BROADCASTING<br>Fixed<br>Mobile<br>5.243 5.246 5.247 | | 223-230<br>FIXED<br>MOBILE<br>BROADCASTING<br>AERONAUTICAL RADIONAVIGATION<br>Radiolocation<br>5.250 | 222-225<br>Radiolocation 5.241 G2 | 222-225<br>AMATEUR | Amateur (97) |
| | 225-235<br>FIXED<br>MOBILE | | 225-235<br>FIXED<br>MOBILE<br>G27 | 225-235 | |
| 230-235<br>FIXED<br>MOBILE<br>5.247 5.251 5.252 | | 230-235<br>FIXED<br>MOBILE<br>AERONAUTICAL RADIONAVIGATION<br>5.250 | | | |
| 235-267<br>FIXED<br>MOBILE<br>5.111 5.199 5.252 5.254 5.256 5.256A | | | 235-267<br>FIXED<br>MOBILE<br>5.111 5.199 5.256 G27 G100 | 235-267<br>5.111 5.199 5.256 | |

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| 272-273<br>SPACE OPERATION (space-to-Earth)<br>FIXED<br>MOBILE<br><br>5.254 | | | | | |
| 273-312<br>FIXED<br>MOBILE<br><br>5.254 | | | | | |
| 312-315<br>FIXED<br>MOBILE<br>Mobile-satellite (Earth-to-space) 5.254 5.255 | | | | | |
| 315-322<br>FIXED<br>MOBILE<br><br>5.254 | | | | | |
| 322-328.6<br>FIXED<br>MOBILE<br>RADIO ASTRONOMY<br><br>5.149 | | | 322-328.6<br>FIXED<br>MOBILE<br><br>US342 G27 | 322-328.6<br><br><br><br>US342 | |
| 328.6-335.4<br>AERONAUTICAL RADIONAVIGATION 5.258<br><br>5.259 | | | 328.6-335.4<br>AERONAUTICAL RADIONAVIGATION 5.258 | | Aviation (87) |
| 335.4-387<br>FIXED<br>MOBILE<br><br>5.254 | | | 335.4-399.9<br>FIXED<br>MOBILE | 335.4-399.9 | |
| 387-390<br>FIXED<br>MOBILE<br>Mobile-satellite (space-to-Earth) 5.208A 5.254 5.255 | | | | | |
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| 399.9-400.05<br>MOBILE-SATELLITE (Earth-to-space) 5.209 5.224A<br>RADIONAVIGATION-SATELLITE 5.222 5.224B 5.260<br>5.220 | 399.9-400.05<br>MOBILE-SATELLITE (Earth-to-space) US319 US320<br>RADIONAVIGATION-SATELLITE 5.260 | | Satellite Communications (25) |
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| 401-402<br>METEOROLOGICAL AIDS<br>SPACE OPERATION (space-to-Earth)<br>EARTH EXPLORATION-SATELLITE (Earth-to-space)<br>METEOROLOGICAL-SATELLITE (Earth-to-space)<br>Fixed<br>Mobile except aeronautical mobile | 401-402<br>METEOROLOGICAL AIDS (radiosonde) US70<br>SPACE OPERATION (space-to-Earth)<br>EARTH EXPLORATION-SATELLITE (Earth-to-space)<br>METEOROLOGICAL-SATELLITE (Earth-to-space)<br>US384 | 401-402<br>METEOROLOGICAL AIDS (radiosonde) US70<br>SPACE OPERATION (space-to-Earth)<br>Earth exploration-satellite (Earth-to-space)<br>Meteorological-satellite (Earth-to-space)<br>US384 | |
| 402-403<br>METEOROLOGICAL AIDS<br>EARTH EXPLORATION-SATELLITE (Earth-to-space)<br>METEOROLOGICAL-SATELLITE (Earth-to-space)<br>Fixed<br>Mobile except aeronautical mobile | 402-403<br>METEOROLOGICAL AIDS (radiosonde) US70<br>EARTH EXPLORATION-SATELLITE (Earth-to-space)<br>METEOROLOGICAL-SATELLITE (Earth-to-space)<br>US345 US384 | 402-403<br>METEOROLOGICAL AIDS (radiosonde) US70<br>Earth exploration-satellite (Earth-to-space)<br>Meteorological-satellite (Earth-to-space)<br>US345 US384 | Personal Radio (95) |
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| 406-406.1<br>MOBILE-SATELLITE (Earth-to-space)<br>5.266 5.267 | 406-406.1<br>MOBILE-SATELLITE (Earth-to-space)<br>5.266 5.267 | | Maritime (80)<br>Aviation (87)<br>Personal Radio (95) |
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| 420-430<br>FIXED<br>MOBILE except aeronautical mobile<br>Radiolocation<br>5.269 5.270 5.271 | | | 420-450<br>RADIOLOCATION US217 G2 G129<br>5.286 US7 US87 US230 US397 G8 | 420-450<br>Amateur US7 NG135<br>5.282 5.286 US87 US217 US230 US397 | Private Land Mobile (90)<br>Amateur (97) |
| 430-432<br>AMATEUR<br>RADIOLOCATION<br>5.271 5.272 5.273 5.274 5.275 5.276 5.277 | 430-432<br>RADIOLOCATION<br>Amateur<br>5.271 5.276 5.277 5.278 5.279 | | | | |
| 432-438<br>AMATEUR<br>RADIOLOCATION<br>Earth exploration-satellite (active) 5.279A<br>5.138 5.271 5.272 5.276 5.277 5.280 5.281 5.282 | 432-438<br>RADIOLOCATION<br>Amateur<br>Earth exploration-satellite (active) 5.279A<br>5.271 5.276 5.277 5.278 5.279 5.281 5.282 | | | | |
| 438-440<br>AMATEUR<br>RADIOLOCATION<br>5.271 5.273 5.274 5.275 5.276 5.277 5.283 | 438-440<br>RADIOLOCATION<br>Amateur<br>5.271 5.276 5.277 5.278 5.279 | | | | |
| 440-450<br>FIXED<br>MOBILE except aeronautical mobile<br>Radiolocation<br>5.269 5.270 5.271 5.284 5.285 5.286 | | | | | |
| 450-455<br>FIXED<br>MOBILE<br>5.209 5.271 5.286 5.286A 5.286B 5.286C 5.286D 5.286E | | | 450-454<br>5.286 US87 | 450-454<br>LAND MOBILE<br>5.286 US87 NG112 NG124 | Remote Pickup (74D)<br>Low Power Auxiliary (74H)<br>Private Land Mobile (90) |
| | | | 454-456 | 454-455<br>FIXED<br>LAND MOBILE<br>NG12 NG112 NG148 | Public Mobile (22)<br>Maritime (80) |
| 455-456<br>FIXED<br>MOBILE<br>5.209 5.271 5.286A 5.286B 5.286C 5.286E | 455-456<br>FIXED<br>MOBILE<br>MOBILE-SATELLITE (Earth-to-space) 5.286A 5.286B 5.286C 5.209 | 455-456<br>FIXED<br>MOBILE<br>5.209 5.271 5.286A 5.286B 5.286C 5.286E | | 455-456<br>LAND MOBILE | Remote Pickup (74D)<br>Low Power Auxiliary (74H) |

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| 456-459<br>FIXED<br>MOBILE<br>5.271 5.287 5.288 | | |
| 459-460<br>FIXED<br>MOBILE<br>5.209 5.271 5.286A 5.286B 5.286C 5.286E | 459-460<br>FIXED<br>MOBILE<br>MOBILE-SATELLITE (Earth-to-space) 5.286A 5.286B 5.286C<br>5.209 | 459-460<br>FIXED<br>MOBILE<br>5.209 5.271 5.286A 5.286B 5.286C 5.286E |
| 460-470<br>FIXED<br>MOBILE<br>Meteorological-satellite (space-to-Earth)<br>5.287 5.288 5.289 5.290 | | |
| 470-790<br>BROADCASTING<br>5.149 5.291A 5.294 5.296 5.300 5.302 5.304 5.306 5.311 5.312 | 470-512<br>BROADCASTING<br>Fixed<br>Mobile<br>5.292 5.293 | 470-585<br>FIXED<br>MOBILE<br>BROADCASTING<br>5.291 5.298 |
| | 512-608<br>BROADCASTING<br>5.297 | 585-610<br>FIXED<br>MOBILE<br>BROADCASTING<br>RADIONAVIGATION<br>5.149 5.305 5.306 5.307 |
| | 608-614<br>RADIO ASTRONOMY<br>Mobile-satellite except aeronautical mobile-satellite (Earth-to-space) | 610-890<br>FIXED<br>MOBILE 5.317A<br>BROADCASTING<br>5.149 5.305 5.306 5.307 5.311 5.320 |
| | 614-806<br>BROADCASTING<br>Fixed<br>Mobile<br>5.293 5.309 5.311 | |

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| 456-460<br>5.287 5.288 | 456-460<br>FIXED<br>LAND MOBILE<br>5.287 5.288 NG112 NG124 NG148 | Public Mobile (22)<br>Maritime (80)<br>Private Land Mobile (90) |
| 460-470<br>Meteorological-satellite (space-to-Earth)<br>5.287 5.288 5.289 US201 US209 US216 | 460-462.5375<br>FIXED<br>LAND MOBILE<br>5.289 US201 US209 NG124 | Private Land Mobile (90) |
| | 462.5375-462.7375<br>LAND MOBILE<br>5.289 US201 | Personal Radio (95) |
| | 462.7375-467.5375<br>FIXED<br>LAND MOBILE<br>5.287 5.289 US201 US209 US216 NG124 | Private Land Mobile (90) |
| | 467.5375-467.7375<br>LAND MOBILE<br>5.287 5.289 US201 | Personal Radio (95) |
| | 467.7375-470<br>FIXED<br>LAND MOBILE<br>5.288 5.289 US201 US216 NG124 | Private Land Mobile (90) |
| 470-608 | 470-512<br>FIXED<br>LAND MOBILE<br>BROADCASTING<br>NG66 NG115 NG128 NG142 NG149 | Public Mobile (22)<br>Broadcast Radio (TV)(73)<br>LPTV, TV Translator/Booster (74G)<br>Low Power Auxiliary (74H)<br>Private Land Mobile (90) |
| | 512-608<br>BROADCASTING<br>NG115 NG128 NG142 NG149 | Broadcast Radio (TV)(73)<br>LPTV, TV Translator/Booster (74G)<br>Low Power Auxiliary (74H) |
| 608-614<br>LAND MOBILE (medical telemetry and medical telecommand)<br>RADIO ASTRONOMY US74<br>US246 | | Personal (95) |
| 614-698 | 614-698<br>BROADCASTING<br>NG115 NG128 NG142 NG149 | Broadcast Radio (TV)(73)<br>LPTV, TV Translator/Booster (74G)<br>Low Power Auxiliary (74H) |

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| | | | | 763-775<br>FIXED<br>MOBILE<br>NG115 NG128 NG142 NG158 NG159 | LPTV, TV Translator/Booster (74G)<br>Low Power Auxiliary (74H)<br>Private Land Mobile (90R) |
| | | | | 775-793<br>FIXED<br>MOBILE<br>BROADCASTING<br>NG115 NG128 NG142 NG159 | Wireless Communications (27)<br>Broadcast Radio (TV)(73)<br>LPTV, TV Translator/Booster (74G)<br>Low Power Auxiliary (74H) |
| 790-862<br>FIXED<br>BROADCASTING | | | | 793-805<br>FIXED<br>MOBILE<br>NG115 NG128 NG142 NG158 NG159 | LPTV, TV Translator/Booster (74G)<br>Low Power Auxiliary (74H)<br>Private Land Mobile (90R) |
| | | | | 805-806<br>FIXED<br>MOBILE<br>BROADCASTING<br>NG115 NG128 NG142 NG159 | Wireless Communications (27)<br>LPTV, TV Translator/Booster (74G)<br>Low Power Auxiliary (74H) |
| | 806-890<br>FIXED<br>MOBILE 5.317A<br>BROADCASTING | | | 806-809<br>LAND MOBILE | Private Land Mobile (90) |
| | | | | 809-849<br>FIXED<br>LAND MOBILE | Public Mobile (22)<br>Private Land Mobile (90) |
| | | | | 849-851<br>AERONAUTICAL MOBILE | Public Mobile (22) |
| 5.312 5.314 5.315 5.316 5.319 5.321 | | | | 851-854<br>LAND MOBILE | Private Land Mobile (90) |
| 862-890<br>FIXED<br>MOBILE except aeronautical mobile 5.317A<br>BROADCASTING 5.322 | | | | 854-894<br>FIXED<br>LAND MOBILE | Public Mobile (22)<br>Private Land Mobile (90) |
| 5.319 5.323 | 5.317 5.318 | | | US116 US268 | |

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| 890-942<br>FIXED<br>MOBILE except aeronautical mobile 5.317A<br>BROADCASTING 5.322<br>Radiolocation | 890-902<br>FIXED<br>MOBILE except aeronautical mobile 5.317A<br>Radiolocation<br>5.318 5.325 | 890-942<br>FIXED<br>MOBILE 5.317A<br>BROADCASTING<br>Radiolocation | 890-902<br>US116 US268 G2 | 894-896<br>AERONAUTICAL MOBILE<br>US116 US268 | Public Mobile (22) |
| | | | | 896-901<br>FIXED<br>LAND MOBILE<br>US116 US268 | Private Land Mobile (90) |
| | | | | 901-902<br>FIXED<br>MOBILE<br>US116 US268 | Personal Communications (24) |
| | 902-928<br>FIXED<br>Amateur<br>Mobile except aeronautical mobile 5.325A<br>Radiolocation<br>5.150 5.325 5.326 | | 902-928<br>RADIOLOCATION G59<br>5.150 US218 US267 US275 G11 | 902-928<br>5.150 US218 US267 US275 | ISM Equipment (18)<br>Private Land Mobile (90)<br>Amateur (97) |
| | 928-942<br>FIXED<br>MOBILE except aeronautical mobile 5.317A<br>Radiolocation | | 928-932<br>US116 US268 G2 | 928-929<br>FIXED<br>US116 US268 NG120 | Public Mobile (22)<br>Private Land Mobile (90)<br>Fixed Microwave (101) |
| | | | | 929-930<br>FIXED<br>LAND MOBILE<br>US116 US268 | Private Land Mobile (90) |
| | | | | 930-931<br>FIXED<br>MOBILE<br>US116 US268 | Personal Communications (24) |
| | | | | 931-932<br>FIXED<br>LAND MOBILE<br>US116 US268 | Public Mobile (22) |
| | | | 932-935<br>FIXED<br>US268 G2 | 932-935<br>FIXED<br>US268 NG120 | Public Mobile (22)<br>Fixed Microwave (101) |
| | | | 935-941<br>US116 US268 G2 | 935-940<br>FIXED<br>LAND MOBILE<br>US116 US268 | Private Land Mobile (90) |
| | | | | 940-941<br>FIXED<br>MOBILE<br>US116 US268 | Personal Communications (24) |
| 5.323 | 5.325 | 5.327 | | | |

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| 942-960<br>FIXED<br>MOBILE except aeronautical mobile 5.317A<br>BROADCASTING 5.322<br><br>5.323 | 942-960<br>FIXED<br>MOBILE 5.317A | 942-960<br>FIXED<br>MOBILE 5.317A<br>BROADCASTING<br><br>5.320 | 944-960 | 944-960<br>FIXED<br><br>NG120 | Public Mobile (22)<br>Aural Broadcast Auxiliary (74E)<br>Low Power Auxiliary (74H)<br>Fixed Microwave (101) |
| 960-1164<br>AERONAUTICAL RADIONAVIGATION 5.328 | | | 960-1164<br>AERONAUTICAL RADIONAVIGATION 5.328<br><br>US224 US400 | | Aviation (87) |
| 1164-1215<br>AERONAUTICAL RADIONAVIGATION 5.328<br>RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space) 5.328B<br><br>5.328A | | | 1164-1215<br>AERONAUTICAL RADIONAVIGATION 5.328<br>RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space)<br><br>5.328A US224 | | |
| 1215-1240<br>EARTH EXPLORATION-SATELLITE (active)<br>RADIOLOCATION<br>RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space) 5.328B 5.329 5.329A<br>SPACE RESEARCH (active)<br><br>5.330 5.331 5.332 | | | 1215-1240<br>EARTH EXPLORATION-SATELLITE (active)<br>RADIOLOCATION G56<br>RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space) G132<br>SPACE RESEARCH (active)<br><br>5.332 | 1215-1240<br>Earth exploration-satellite (active)<br>Space research (active) | |
| 1240-1300<br>EARTH EXPLORATION-SATELLITE (active)<br>RADIOLOCATION<br>RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space) 5.328B 5.329 5.329A<br>SPACE RESEARCH (active)<br>Amateur<br>5.282 5.330 5.331 5.332 5.335 5.335A | | | 1240-1300<br>EARTH EXPLORATION-SATELLITE (active)<br>RADIOLOCATION G56<br>SPACE RESEARCH (active)<br>AERONAUTICAL RADIONAVIGATION<br><br>5.332 5.335 | 1240-1300<br>AERONAUTICAL RADIONAVIGATION<br>Amateur<br>Earth exploration-satellite (active)<br>Space research (active)<br><br>5.282 | Amateur (97) |
| 1300-1350<br>AERONAUTICAL RADIONAVIGATION 5.337<br>RADIOLOCATION<br>RADIONAVIGATION-SATELLITE (Earth-to-space)<br>5.149 5.337A | | | 1300-1350<br>AERONAUTICAL RADIONAVIGATION 5.337<br>Radiolocation G2<br><br>US342 | 1300-1350<br>AERONAUTICAL RADIONAVIGATION 5.337<br><br>US342 | Aviation (87) |
| 1350-1400<br>FIXED<br>MOBILE<br>RADIOLOCATION | 1350-1400<br>RADIOLOCATION | | 1350-1390<br>FIXED<br>MOBILE<br>RADIOLOCATION G2<br><br>5.334 5.339 US311 US342 G27 G114 | 1350-1390<br><br><br><br><br>5.334 5.339 US311 US342 | |

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|---|---|---|---|---|
| | | 1390-1395<br><br>5.339 US311 US342 US351 US398 | 1390-1392<br>FIXED<br>MOBILE except aeronautical mobile<br>Fixed-satellite (Earth-to-space) US368<br><br>5.339 US311 US342 US351 US398<br>1392-1395<br>FIXED<br>MOBILE except aeronautical mobile<br><br>5.339 US311 US342 US351 US398 | Wireless Communications (27) |
| 5.149 5.338 5.339 5.339A | 5.149 5.334 5.339 5.339A | 1395-1400<br>LAND MOBILE (medical telemetry and medical telecommand)<br><br>5.339 US311 US342 US351 US398 | | Personal (95) |
| 1400-1427<br>EARTH EXPLORATION-SATELLITE (passive)<br>RADIO ASTRONOMY<br>SPACE RESEARCH (passive)<br><br>5.340 5.341 | | 1400-1427<br>EARTH EXPLORATION-SATELLITE (passive)<br>RADIO ASTRONOMY<br>SPACE RESEARCH (passive)<br><br>5.341 US246 | | |
| 1427-1429<br>SPACE OPERATION (Earth-to-space)<br>FIXED<br>MOBILE except aeronautical mobile<br><br>5.341 | | 1427-1429.5<br>LAND MOBILE (medical telemetry and medical telecommand) US350<br><br>5.341 US352 US398 | 1427-1429.5<br>LAND MOBILE (telemetry and telecommand)<br>Fixed (telemetry)<br><br>5.341 US350 US352 US398 | Private Land Mobile (90)<br>Personal (95) |
| 1429-1452<br>FIXED<br>MOBILE except aeronautical mobile<br><br>5.339A 5.341 5.342 | 1429-1452<br>FIXED<br>MOBILE 5.343<br><br>5.339A 5.341 | 1429.5-1432<br><br>5.341 US350 US352 US398 | 1429.5-1430<br>FIXED (telemetry and telecommand)<br>LAND MOBILE (telemetry and telecommand)<br><br>5.341 US350 US352 US398<br>1430-1432<br>FIXED (telemetry and telecommand)<br>LAND MOBILE (telemetry and telecommand)<br>Fixed-satellite (space-to-Earth) US368<br><br>5.341 US350 US352 US398 | |
| | | 1432-1435<br><br>5.341 US361 | 1432-1435<br>FIXED<br>MOBILE except aeronautical mobile<br><br>5.341 US361 | Wireless Communications (27) |

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| (See previous page) | | | 1435-1525<br>MOBILE (aeronautical telemetry)<br>5.341 US78 | | Aviation (87) |
| 1452-1492<br>FIXED<br>MOBILE except aeronautical mobile<br>BROADCASTING 5.345 5.347<br>BROADCASTING-SATELLITE 5.345 5.347 5.347A<br>5.341 5.342 | 1452-1492<br>FIXED<br>MOBILE 5.343<br>BROADCASTING 5.345 5.347<br>BROADCASTING-SATELLITE 5.345 5.347 5.347A<br>5.341 5.344 | | | | |
| 1492-1518<br>FIXED<br>MOBILE except aeronautical mobile<br>5.341 5.342 | 1492-1518<br>FIXED<br>MOBILE 5.343<br>5.341 5.344 | 1492-1518<br>FIXED<br>MOBILE<br>5.341 | | | |
| 1518-1525<br>FIXED<br>MOBILE except aeronautical mobile<br>MOBILE-SATELLITE (space-to-Earth) 5.348 5.348A 5.348B 5.348C<br>5.341 5.342 | 1518-1525<br>FIXED<br>MOBILE 5.343<br>MOBILE-SATELLITE (space-to-Earth) 5.348 5.348A 5.348B 5.348C<br>5.341 5.344 | 1518-1525<br>FIXED<br>MOBILE<br>MOBILE-SATELLITE (space-to-Earth) 5.348 5.348A 5.348B 5.348C<br>5.341 | | | |
| 1525-1530<br>SPACE OPERATION (space-to-Earth)<br>FIXED<br>MOBILE-SATELLITE (space-to-Earth) 5.347A 5.351A<br>Earth exploration-satellite<br>Mobile except aeronautical mobile 5.349<br>5.341 5.342 5.350 5.351 5.352A 5.354 | 1525-1530<br>SPACE OPERATION (space-to-Earth)<br>MOBILE-SATELLITE (space-to-Earth) 5.347A 5.351A<br>Earth exploration-satellite<br>Fixed<br>Mobile 5.343<br>5.341 5.351 5.354 | 1525-1530<br>SPACE OPERATION (space-to-Earth)<br>FIXED<br>MOBILE-SATELLITE (space-to-Earth) 5.347A 5.351A<br>Earth exploration-satellite<br>Mobile 5.349<br>5.341 5.351 5.352A 5.354 | 1525-1535<br>MOBILE-SATELLITE (space-to-Earth) US315 US380<br>5.341 5.351 | | Satellite Communications (25)<br>Maritime (80) |
| 1530-1535<br>SPACE OPERATION (space-to-Earth)<br>MOBILE-SATELLITE (space-to-Earth) 5.347A 5.351A 5.353A<br>Earth exploration-satellite<br>Fixed<br>Mobile except aeronautical mobile<br>5.341 5.342 5.351 5.354 | 1530-1535<br>SPACE OPERATION (space-to-Earth)<br>MOBILE-SATELLITE (space-to-Earth) 5.347A 5.351A 5.353A<br>Earth exploration-satellite<br>Fixed<br>Mobile 5.343<br>5.341 5.351 5.354 | | | | |
| 1535-1559<br>MOBILE-SATELLITE (space-to-Earth) 5.347A 5.351A<br>5.341 5.351 5.353A 5.354 5.355 5.356 5.357 5.357A 5.359 5.362A | | | 1535-1559<br>MOBILE-SATELLITE (space-to-Earth) US308 US309 US315 US380<br>5.341 5.351 5.356 | | Satellite Communications (25)<br>Maritime (80)<br>Aviation (87) |
| 1559-1610<br>AERONAUTICAL RADIONAVIGATION<br>RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space) 5.328B 5.329A<br>5.341 5.362B 5.362C 5.363 | | | 1559-1610<br>AERONAUTICAL RADIONAVIGATION<br>RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space)<br>5.341 US208 US260 US343 | | Aviation (87) |

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|---|---|---|---|---|
| 1610-1610.6<br>MOBILE-SATELLITE (Earth-to-space) 5.351A<br>AERONAUTICAL RADIONAVIGATION<br>5.341 5.355 5.359 5.363 5.364 5.366 5.367 5.368 5.369 5.371 5.372 | 1610-1610.6<br>MOBILE-SATELLITE (Earth-to-space) 5.351A<br>AERONAUTICAL RADIONAVIGATION<br>RADIODETERMINATION-SATELLITE (Earth-to-space)<br>5.341 5.364 5.366 5.367 5.368 5.370 5.372 | 1610-1610.6<br>MOBILE-SATELLITE (Earth-to-space) 5.351A<br>AERONAUTICAL RADIONAVIGATION<br>Radiodetermination-satellite (Earth-to-space)<br>5.341 5.355 5.359 5.364 5.366 5.367 5.368 5.369 5.372 | 1610-1610.6<br>MOBILE-SATELLITE (Earth-to-space) US319 US380<br>AERONAUTICAL RADIONAVIGATION US260<br>RADIODETERMINATION-SATELLITE (Earth-to-space)<br>5.341 5.364 5.366 5.367 5.368 5.372 US208 | Satellite Communications (25)<br>Aviation (87) |
| 1610.6-1613.8<br>MOBILE-SATELLITE (Earth-to-space) 5.351A<br>RADIO ASTRONOMY<br>AERONAUTICAL RADIONAVIGATION<br>5.149 5.341 5.355 5.359 5.363 5.364 5.366 5.367 5.368 5.369 5.371 5.372 | 1610.6-1613.8<br>MOBILE-SATELLITE (Earth-to-space) 5.351A<br>RADIO ASTRONOMY<br>AERONAUTICAL RADIONAVIGATION<br>RADIODETERMINATION-SATELLITE (Earth-to-space)<br>5.149 5.341 5.364 5.366 5.367 5.368 5.370 5.372 | 1610.6-1613.8<br>MOBILE-SATELLITE (Earth-to-space) 5.351A<br>RADIO ASTRONOMY<br>AERONAUTICAL RADIONAVIGATION<br>Radiodetermination-satellite (Earth-to-space)<br>5.149 5.341 5.355 5.359 5.364 5.366 5.367 5.368 5.369 5.372 | 1610.6-1613.8<br>MOBILE-SATELLITE (Earth-to-space) US319 US380<br>RADIO ASTRONOMY<br>AERONAUTICAL RADIONAVIGATION US260<br>RADIODETERMINATION-SATELLITE (Earth-to-space)<br>5.341 5.364 5.366 5.367 5.368 5.372 US208 US342 | |
| 1613.8-1626.5<br>MOBILE-SATELLITE (Earth-to-space) 5.351A<br>AERONAUTICAL RADIONAVIGATION<br>Mobile-satellite (space-to-Earth) 5.347A<br>5.341 5.355 5.359 5.363 5.364 5.365 5.366 5.367 5.368 5.369 5.371 5.372 | 1613.8-1626.5<br>MOBILE-SATELLITE (Earth-to-space) 5.351A<br>AERONAUTICAL RADIONAVIGATION<br>RADIODETERMINATION-SATELLITE (Earth-to-space)<br>Mobile-satellite (space-to-Earth) 5.347A<br>5.341 5.364 5.365 5.366 5.367 5.368 5.370 5.372 | 1613.8-1626.5<br>MOBILE-SATELLITE (Earth-to-space) 5.351A<br>AERONAUTICAL RADIONAVIGATION<br>Mobile-satellite (space-to-Earth) 5.347A<br>Radiodetermination-satellite (Earth-to-space)<br>5.341 5.355 5.359 5.364 5.365 5.366 5.367 5.368 5.369 5.372 | 1613.8-1626.5<br>MOBILE-SATELLITE (Earth-to-space) US319 US380<br>AERONAUTICAL RADIONAVIGATION US260<br>RADIODETERMINATION-SATELLITE (Earth-to-space)<br>Mobile-satellite (space-to-Earth)<br>5.341 5.364 5.365 5.366 5.367 5.368 5.372 US208 | |
| 1626.5-1660<br>MOBILE-SATELLITE (Earth-to-space) 5.351A<br>5.341 5.351 5.353A 5.354 5.355 5.357A 5.359 5.362A 5.374 5.375 5.376 | | | 1626.5-1660<br>MOBILE-SATELLITE (Earth-to-space) US308 US309 US315 US380<br>5.341 5.351 5.375 | Satellite Communications (25)<br>Maritime (80)<br>Aviation (87) |
| 1660-1660.5<br>MOBILE-SATELLITE (Earth-to-space) 5.351A<br>RADIO ASTRONOMY<br>5.149 5.341 5.351 5.354 5.362A 5.376A | | | 1660-1660.5<br>MOBILE-SATELLITE (Earth-to-space) US308 US309 US380<br>RADIO ASTRONOMY<br>5.341 5.351 US342 | Satellite Communications (25)<br>Aviation (87) |
| 1660.5-1668<br>RADIO ASTRONOMY<br>SPACE RESEARCH (passive)<br>Fixed<br>Mobile except aeronautical mobile<br>5.149 5.341 5.379 5.379A | | | 1660.5-1668.4<br>RADIO ASTRONOMY US74<br>SPACE RESEARCH (passive) | |
| 1668-1668.4<br>MOBILE-SATELLITE (Earth-to-space) 5.348C 5.379B 5.379C<br>RADIO ASTRONOMY<br>SPACE RESEARCH (passive)<br>Fixed<br>Mobile except aeronautical mobile<br>5.149 5.341 5.379 5.379A 5.379D | | | 5.341 US246 | |

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| 1668.4-1670<br>METEOROLOGICAL AIDS<br>FIXED<br>MOBILE except aeronautical mobile<br>MOBILE-SATELLITE (Earth-to-space) 5.348C 5.379B 5.379C<br>RADIO ASTRONOMY<br>5.149 5.341 5.379D 5.379E | | | 1668.4-1670<br>METEOROLOGICAL AIDS (radiosonde)<br>RADIO ASTRONOMY US74<br>5.341 US99 US342 | | |
| 1670-1675<br>METEOROLOGICAL AIDS<br>FIXED<br>METEOROLOGICAL-SATELLITE (space-to-Earth)<br>MOBILE 5.380<br>MOBILE-SATELLITE (Earth-to-space) 5.348C 5.379B<br>5.341 5.379D 5.379E 5.380A | | | 1670-1675<br>5.341 US211 US362 | 1670-1675<br>FIXED<br>MOBILE except aeronautical mobile<br>5.341 US211 US362 | Wireless Communications (27) |
| 1675-1690<br>METEOROLOGICAL AIDS<br>FIXED<br>METEOROLOGICAL-SATELLITE (space-to-Earth)<br>MOBILE except aeronautical mobile<br>5.341 | | | 1675-1700<br>METEOROLOGICAL AIDS (radiosonde)<br>METEOROLOGICAL-SATELLITE (space-to-Earth)<br>5.289 5.341 US211 | | |
| 1690-1700<br>METEOROLOGICAL AIDS<br>METEOROLOGICAL-SATELLITE (space-to-Earth)<br>Fixed<br>Mobile except aeronautical mobile<br>5.289 5.341 5.382 | 1690-1700<br>METEOROLOGICAL AIDS<br>METEOROLOGICAL-SATELLITE (space-to-Earth)<br>5.289 5.341 5.381 | | | | |
| 1700-1710<br>FIXED<br>METEOROLOGICAL-SATELLITE (space-to-Earth)<br>MOBILE except aeronautical mobile<br>5.289 5.341 | | 1700-1710<br>FIXED<br>METEOROLOGICAL-SATELLITE (space-to-Earth)<br>MOBILE except aeronautical mobile<br>5.289 5.341 5.384 | 1700-1710<br>FIXED G118<br>METEOROLOGICAL-SATELLITE (space-to-Earth)<br>5.289 5.341 | 1700-1710<br>METEOROLOGICAL-SATELLITE (space-to-Earth)<br>Fixed<br>5.289 5.341 | |
| 1710-1930<br>FIXED<br>MOBILE 5.380 5.384A 5.388A 5.388B<br>5.149 5.341 5.385 5.386 5.387 5.388 | | | 1710-1755<br>5.341 US311 US378 | 1710-1755<br>FIXED<br>MOBILE<br>5.341 US311 US378 | Wireless Communications (27) |
| | | | 1755-1850<br>FIXED<br>MOBILE<br>SPACE OPERATION (Earth-to-space) G42 | 1755-1850 | |

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|---|---|---|---|---|---|
| 1930-1970<br>FIXED<br>MOBILE 5.388A 5.388B<br>5.388 | 1930-1970<br>FIXED<br>MOBILE 5.388A 5.388B<br>Mobile-satellite (Earth-to-space)<br>5.388 | 1930-1970<br>FIXED<br>MOBILE 5.388A 5.388B<br>5.388 | 1850-2025 | 1850-2000<br>FIXED<br>MOBILE<br>NG177 | RF Devices (15)<br>Personal Communications (24)<br>Fixed Microwave (101) |
| 1970-1980<br>FIXED<br>MOBILE 5.388A 5.388B<br>5.388 | | | | | |
| 1980-2010<br>FIXED<br>MOBILE<br>MOBILE-SATELLITE (Earth-to-space) 5.351A<br>5.388 5.389A 5.389B 5.389F | | | | 2000-2020<br>MOBILE-SATELLITE (Earth-to-space) US380<br>NG156 | Satellite Communications (25) |
| 2010-2025<br>FIXED<br>MOBILE 5.388A 5.388B<br>5.388 | 2010-2025<br>FIXED<br>MOBILE<br>MOBILE-SATELLITE (Earth-to-space)<br>5.388 5.389C 5.389E 5.390 | 2010-2025<br>FIXED<br>MOBILE 5.388A 5.388B<br>5.388 | | 2020-2025<br>FIXED<br>MOBILE<br>NG177 | |
| 2025-2110<br>SPACE OPERATION (Earth-to-space) (space-to-space)<br>EARTH EXPLORATION-SATELLITE (Earth-to-space) (space-to-space)<br>FIXED<br>MOBILE 5.391<br>SPACE RESEARCH (Earth-to-space) (space-to-space)<br>5.392 | | | 2025-2110<br>SPACE OPERATION (Earth-to-space) (space-to-space)<br>EARTH EXPLORATION-SATELLITE (Earth-to-space) (space-to-space)<br>SPACE RESEARCH (Earth-to-space) (space-to-space)<br>5.391 5.392 US90 US222 US346 US347 US393 | 2025-2110<br>FIXED NG118<br>MOBILE 5.391<br>5.392 US90 US222 US346 US347 US393 | TV Auxiliary Broadcasting (74F)<br>Cable TV Relay (78)<br>Local TV Transmission (101J) |
| 2110-2120<br>FIXED<br>MOBILE 5.388A 5.388B<br>SPACE RESEARCH (deep space) (Earth-to-space)<br>5.388 | | | 2110-2120<br>US252 | 2110-2120<br>FIXED<br>MOBILE<br>US252 | Public Mobile (22)<br>Wireless Communications (27)<br>Fixed Microwave (101) |
| 2120-2160<br>FIXED<br>MOBILE 5.388A 5.388B<br>5.388 | 2120-2160<br>FIXED<br>MOBILE 5.388A 5.388B<br>Mobile-satellite (space-to-Earth)<br>5.388 | 2120-2170<br>FIXED<br>MOBILE 5.388A 5.388B | 2120-2200 | 2120-2180<br>FIXED<br>MOBILE<br>NG153 NG178 | |
| 2160-2170<br>FIXED<br>MOBILE 5.388A 5.388B<br>5.388 5.392A | 2160-2170<br>FIXED<br>MOBILE<br>MOBILE-SATELLITE (space-to-Earth)<br>5.388 5.389C 5.389E 5.390 | 5.388 | | | |
| 2170-2200<br>FIXED<br>MOBILE<br>MOBILE-SATELLITE (space-to-Earth) 5.351A<br>5.388 5.389A 5.389F 5.392A | | | | 2180-2200<br>MOBILE-SATELLITE (space-to-Earth) US380<br>NG168 | Satellite Communications (25) |

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| 2200-2290<br>SPACE OPERATION (space-to-Earth) (space-to-space)<br>EARTH EXPLORATION-SATELLITE (space-to-Earth) (space-to-space)<br>FIXED<br>MOBILE 5.391<br>SPACE RESEARCH (space-to-Earth) (space-to-space)<br>5.392 | | | 2200-2290<br>SPACE OPERATION (space-to-Earth) (space-to-space)<br>EARTH EXPLORATION-SATELLITE (space-to-Earth) (space-to-space)<br>FIXED (line-of-sight only)<br>MOBILE (line-of-sight only including aeronautical telemetry, but excluding flight testing of manned aircraft) 5.391<br>SPACE RESEARCH (space-to-Earth) (space-to-space)<br>5.392 US303 | 2200-2290<br>US303 | |
| 2290-2300<br>FIXED<br>MOBILE except aeronautical mobile<br>SPACE RESEARCH (deep space) (space-to-Earth) | | | 2290-2300<br>FIXED<br>MOBILE except aeronautical mobile<br>SPACE RESEARCH (deep space) (space-to-Earth) | 2290-2300<br>SPACE RESEARCH (deep space) (space-to-Earth) | |
| 2300-2450<br>FIXED<br>MOBILE<br>Amateur<br>Radiolocation | 2300-2450<br>FIXED<br>MOBILE<br>RADIOLOCATION<br>Amateur | | 2300-2305<br>G122 | 2300-2305<br>Amateur | Amateur (97) |
| | | | 2305-2310<br>US338 G122 | 2305-2310<br>FIXED<br>MOBILE except aeronautical mobile<br>RADIOLOCATION<br>Amateur<br>US338 | Wireless Communications (27)<br>Amateur (97) |
| | | | 2310-2320<br>Fixed<br>Mobile US339<br>Radiolocation G2<br>US327 | 2310-2320<br>FIXED<br>MOBILE US339<br>BROADCASTING-SATELLITE<br>RADIOLOCATION<br>5.396 US327 | Wireless Communications (27)<br>Aviation (87) |
| | | | 2320-2345<br>Fixed<br>Radiolocation G2<br>US327 | 2320-2345<br>BROADCASTING-SATELLITE<br>5.396 US327 | Satellite Communications (25) |
| | | | 2345-2360<br>Fixed<br>Mobile US339<br>Radiolocation G2<br>US327 | 2345-2360<br>FIXED<br>MOBILE US339<br>BROADCASTING-SATELLITE<br>RADIOLOCATION<br>5.396 US327 | Wireless Communications (27)<br>Aviation (87) |
| | | | 2360-2390<br>MOBILE US276<br>RADIOLOCATION G2 G120<br>Fixed | 2360-2390<br>MOBILE US276 | Aviation (87) |

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| | | | 2390-2395<br>MOBILE US276 | 2390-2395<br>AMATEUR<br>MOBILE US276 | Aviation (87)<br>Amateur (97) |
| | | | 2395-2400<br>G122 | 2395-2400<br>AMATEUR | Amateur (97) |
| | | | 2400-2417<br>5.150 G122 | 2400-2417<br>AMATEUR<br>5.150 5.282 | ISM Equipment (18)<br>Amateur (97) |
| 5.150 5.282 5.395 | 5.150 5.282 5.393 5.394 5.396 | | 2417-2450<br>Radiolocation G2<br>5.150 G124 | 2417-2450<br>Amateur<br>5.150 5.282 | |
| 2450-2483.5<br>FIXED<br>MOBILE<br>Radiolocation<br>5.150 5.397 | 2450-2483.5<br>FIXED<br>MOBILE<br>RADIOLOCATION<br>5.150 5.394 | | 2450-2483.5<br>5.150 US41 | 2450-2483.5<br>FIXED<br>MOBILE<br>Radiolocation<br>5.150 US41 | ISM Equipment (18)<br>TV Auxiliary Broadcasting (74F)<br>Private Land Mobile (90)<br>Fixed Microwave (101) |
| 2483.5-2500<br>FIXED<br>MOBILE<br>MOBILE-SATELLITE (space-to-Earth) 5.351A<br>Radiolocation<br>5.150 5.371 5.397 5.398 5.399 5.400 5.402 | 2483.5-2500<br>FIXED<br>MOBILE<br>MOBILE-SATELLITE (space-to-Earth) 5.351A<br>RADIODETERMINATION-SATELLITE (space-to-Earth) 5.398<br>RADIOLOCATION<br>5.150 5.402 | 2483.5-2500<br>FIXED<br>MOBILE<br>MOBILE-SATELLITE (space-to-Earth) 5.351A<br>RADIOLOCATION<br>Radiodetermination-satellite (space-to-Earth) 5.398<br>5.150 5.400 5.402 | 2483.5-2500<br>MOBILE-SATELLITE (space-to-Earth) US319 US380 US391<br>RADIODETERMINATION-SATELLITE (space-to-Earth) 5.398<br>5.150 5.402 US41 | 2483.5-2495<br>MOBILE-SATELLITE (space-to-Earth) US319 US380<br>RADIODETERMINATION-SATELLITE (space-to-Earth) 5.398<br>5.150 5.402 US41 NG147 | ISM Equipment (18)<br>Satellite Communications (25) |
| | | | | 2495-2500<br>FIXED<br>MOBILE except aeronautical mobile<br>MOBILE-SATELLITE (space-to-Earth) US319 US380<br>RADIODETERMINATION-SATELLITE (space-to-Earth) 5.398<br>5.150 5.402 US41 US391 NG147 | ISM Equipment (18)<br>Satellite Communications (25)<br>Wireless Communications (27) |
| 2500-2520<br>FIXED 5.409 5.410 5.411<br>MOBILE except aeronautical mobile 5.384A<br>MOBILE-SATELLITE (space-to Earth) 5.351A 5.403<br>5.405 5.407 5.412 5.414 | 2500-2520<br>FIXED 5.409 5.411<br>FIXED-SATELLITE (space-to-Earth) 5.415<br>MOBILE except aeronautical mobile 5.384A<br>MOBILE-SATELLITE (space-to-Earth) 5.351A 5.403<br>5.404 5.407 5.414 5.415A | | 2500-2655<br>5.339 US205 | 2500-2655<br>FIXED US205<br>MOBILE except aeronautical mobile<br>5.339 | Wireless Communications (27) |
| 2520-2655<br>FIXED 5.409 5.410 5.411<br>MOBILE except aeronautical mobile 5.384A<br>BROADCASTING-SATELLITE 5.413 5.416<br>5.339 5.403 5.405 5.412 5.417C 5.417D 5.418B 5.418C | 2520-2655<br>FIXED 5.409 5.411<br>FIXED-SATELLITE (space-to-Earth) 5.415<br>MOBILE except aeronautical mobile 5.384A<br>BROADCASTING-SATELLITE 5.413 5.416<br>5.339 5.403 5.417C 5.417D 5.418B 5.418C | 2520-2535<br>FIXED 5.409 5.411<br>FIXED-SATELLITE (space-to-Earth) 5.415<br>MOBILE except aeronautical mobile 5.384A<br>BROADCASTING-SATELLITE 5.413 5.416<br>5.403 5.415A | | | |
| | | 2535-2655<br>FIXED 5.409 5.411<br>MOBILE except aeronautical mobile 5.384A<br>BROADCASTING-SATELLITE 5.413 5.416<br>5.339 5.417A 5.417B 5.417C 5.417D 5.418 5.418A 5.418B 5.418C | | | |

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| 2655-2670<br>FIXED 5.409 5.410 5.411<br>MOBILE except aeronautical mobile 5.384A<br>BROADCASTING-SATELLITE 5.347A 5.413 5.416<br>Earth exploration-satellite (passive)<br>Radio astronomy<br>Space research (passive)<br>5.149 5.412 5.420 | 2655-2670<br>FIXED 5.409 5.411<br>FIXED-SATELLITE (Earth-to-space) (space-to-Earth) 5.415<br>MOBILE except aeronautical mobile 5.384A<br>BROADCASTING-SATELLITE 5.413 5.416<br>Earth exploration-satellite (passive)<br>Radio astronomy<br>Space research (passive)<br>5.149 5.420 5.347A | 2655-2670<br>FIXED 5.409 5.411<br>FIXED-SATELLITE (Earth-to-space) 5.415<br>MOBILE except aeronautical mobile 5.384A<br>BROADCASTING-SATELLITE 5.347A 5.413 5.416<br>Earth exploration-satellite (passive)<br>Radio astronomy<br>Space research (passive)<br>5.149 5.420 | 2655-2690<br>Earth exploration-satellite (passive)<br>Radio astronomy US269<br>Space research (passive)<br>US205 | 2655-2690<br>FIXED US205<br>MOBILE except aeronautical mobile<br>Earth exploration-satellite (passive)<br>Radio astronomy<br>Space research (passive)<br>US269 | Wireless Communications (27) |
| 2670-2690<br>FIXED 5.409 5.410 5.411<br>MOBILE except aeronautical mobile 5.384A<br>MOBILE-SATELLITE (Earth-to-space) 5.351A<br>Earth exploration-satellite (passive)<br>Radio astronomy<br>Space research (passive)<br>5.149 5.412 5.419 5.420 | 2670-2690<br>FIXED 5.409 5.411<br>FIXED-SATELLITE (Earth-to-space) (space-to-Earth) 5.347A 5.415<br>MOBILE except aeronautical mobile 5.384A<br>MOBILE-SATELLITE (Earth-to-space) 5.351A<br>Earth exploration-satellite (passive)<br>Radio astronomy<br>Space research (passive)<br>5.149 5.419 5.420 | 2670-2690<br>FIXED 5.409 5.411<br>FIXED-SATELLITE (Earth-to-space) 5.415<br>MOBILE except aeronautical mobile 5.384A<br>MOBILE-SATELLITE (Earth-to-space) 5.351A<br>Earth exploration-satellite (passive)<br>Radio astronomy<br>Space research (passive)<br>5.149 5.419 5.420 5.420A | | | |
| 2690-2700<br>EARTH EXPLORATION-SATELLITE (passive)<br>RADIO ASTRONOMY<br>SPACE RESEARCH (passive)<br>5.340 5.422 | | | 2690-2700<br>EARTH EXPLORATION-SATELLITE (passive)<br>RADIO ASTRONOMY US74<br>SPACE RESEARCH (passive)<br>US246 | | |
| 2700-2900<br>AERONAUTICAL RADIONAVIGATION 5.337<br>Radiolocation<br>5.423 5.424 | | | 2700-2900<br>METEOROLOGICAL AIDS<br>AERONAUTICAL RADIONAVIGATION 5.337<br>Radiolocation G2<br>5.423 US18 G15 | 2700-2900<br>5.423 US18 | Aviation (87) |
| 2900-3100<br>RADIOLOCATION 5.424A<br>RADIONAVIGATION 5.426<br>5.425 5.427 | | | 2900-3100<br>RADIOLOCATION 5.424A G56<br>MARITIME RADIONAVIGATION<br>5.427 US44 US316 | 2900-3100<br>MARITIME RADIONAVIGATION<br>Radiolocation US44<br>5.427 US316 | Maritime (80)<br>Private Land Mobile (90) |
| 3100-3300<br>RADIOLOCATION<br>Earth exploration-satellite (active)<br>Space research (active)<br>5.149 5.428 | | | 3100-3300<br>RADIOLOCATION G59<br>Earth exploration-satellite (active)<br>Space research (active)<br>US342 | 3100-3300<br>Earth exploration-satellite (active)<br>Space research (active)<br>Radiolocation<br>US342 | Private Land Mobile (90) |

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|---|---|---|---|---|---|
| 3300-3400<br>RADIOLOCATION<br>5.149 5.429 5.430 | 3300-3400<br>RADIOLOCATION<br>Amateur<br>Fixed<br>Mobile<br>5.149 5.430 | 3300-3400<br>RADIOLOCATION<br>Amateur<br>5.149 5.429 | 3300-3500<br>RADIOLOCATION US108 G2<br>US342 | 3300-3500<br>Amateur<br>Radiolocation US108<br>5.282 US342 | Private Land Mobile (90)<br>Amateur (97) |
| 3400-3600<br>FIXED<br>FIXED-SATELLITE (space-to-Earth)<br>Mobile<br>Radiolocation<br>5.431 | 3400-3500<br>FIXED<br>FIXED-SATELLITE (space-to-Earth)<br>Amateur<br>Mobile<br>Radiolocation 5.433<br>5.282 5.432 | | | | |
| 3600-4200<br>FIXED<br>FIXED-SATELLITE (space-to-Earth)<br>Mobile | 3500-3700<br>FIXED<br>FIXED-SATELLITE (space-to-Earth)<br>MOBILE except aeronautical mobile<br>Radiolocation 5.433<br>5.435 | | 3500-3650<br>RADIOLOCATION G59<br>AERONAUTICAL RADIONAVIGATION (ground-based) G110<br>US245 | 3500-3600<br>Radiolocation<br>3600-3650<br>FIXED-SATELLITE (space-to-Earth) US245<br>Radiolocation | Private Land Mobile (90) |
| | | | 3650-3700<br>US348 US349 | 3650-3700<br>FIXED<br>FIXED-SATELLITE (space-to-Earth) NG169 NG185<br>MOBILE except aeronautical mobile<br>US348 US349 | Satellite Communications (25)<br>Private Land Mobile (90) |
| | 3700-4200<br>FIXED<br>FIXED-SATELLITE (space-to-Earth)<br>MOBILE except aeronautical mobile | | 3700-4200 | 3700-4200<br>FIXED NG41<br>FIXED-SATELLITE (space-to-Earth) NG180 | International Fixed (23)<br>Satellite Communications (25)<br>Fixed Microwave (101) |
| 4200-4400<br>AERONAUTICAL RADIONAVIGATION 5.438<br>5.439 5.440 | | | 4200-4400<br>AERONAUTICAL RADIONAVIGATION<br>5.440 US261 | | Aviation (87) |
| 4400-4500<br>FIXED<br>MOBILE | | | 4400-4500<br>FIXED<br>MOBILE | 4400-4500 | |
| 4500-4800<br>FIXED<br>FIXED-SATELLITE (space-to-Earth) 5.441<br>MOBILE | | | 4500-4800<br>FIXED<br>MOBILE<br>US245 | 4500-4800<br>FIXED-SATELLITE (space-to-Earth) 5.441 US245 | |
| 4800-4990<br>FIXED<br>MOBILE 5.442<br>Radio astronomy<br>5.149 5.339 5.443 | | | 4800-4940<br>FIXED<br>MOBILE<br>US203 US342 | 4800-4940<br>US203 US342 | |
| | | | 4940-4990<br>5.339 US311 US342 G122 | 4940-4990<br>FIXED<br>MOBILE except aeronautical mobile<br>5.339 US311 US342 | Private Land Mobile (90) |

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| 4990-5000<br>FIXED<br>MOBILE except aeronautical mobile<br>RADIO ASTRONOMY<br>Space research (passive)<br>5.149 | | | 4990-5000<br>RADIO ASTRONOMY US74<br>Space research (passive)<br>US246 | | |
| 5000-5010<br>AERONAUTICAL RADIONAVIGATION<br>RADIONAVIGATION-SATELLITE (Earth-to-space)<br>5.367 | | | 5000-5010<br>AERONAUTICAL RADIONAVIGATION US260<br>RADIONAVIGATION-SATELLITE (Earth-to-space)<br>5.367 US211 US344 | | Aviation (87) |
| 5010-5030<br>AERONAUTICAL RADIONAVIGATION<br>RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space) 5.328B 5.443B<br>5.367 | | | 5010-5030<br>AERONAUTICAL RADIONAVIGATION US260<br>RADIONAVIGATION-SATELLITE (space-to-Earth) (space-to-space) 5.443B<br>5.367 US211 US344 | | |
| 5030-5150<br>AERONAUTICAL RADIONAVIGATION<br>5.367 5.444 5.444A | | | 5030-5250<br>AERONAUTICAL RADIONAVIGATION US260 | 5030-5150<br>AERONAUTICAL RADIONAVIGATION US260<br>5.367 5.444 5.444A US211 US344 | Satellite Communications (25)<br>Aviation (87) |
| 5150-5250<br>AERONAUTICAL RADIONAVIGATION<br>FIXED-SATELLITE (Earth-to-space) 5.447A<br>MOBILE except aeronautical mobile 5.446A 5.446B<br>5.446 5.447 5.447B 5.447C | | | 5.367 5.444 US211 US307 US344 | 5150-5250<br>AERONAUTICAL RADIONAVIGATION US260<br>FIXED-SATELLITE (Earth-to-space) 5.447A US344<br>5.447C US211 US307 | RF Devices (15)<br>Satellite Communications (25)<br>Aviation (87) |
| 5250-5255<br>EARTH EXPLORATION-SATELLITE (active)<br>RADIOLOCATION<br>SPACE RESEARCH 5.447D<br>MOBILE except aeronautical mobile 5.446A 5.447F<br>5.447E 5.448 5.448A | | | 5250-5255<br>EARTH EXPLORATION-SATELLITE (active)<br>RADIOLOCATION G59<br>SPACE RESEARCH (active) 5.447D<br>5.448A | 5250-5255<br>Earth exploration-satellite (active)<br>Radiolocation<br>Space research | RF Devices (15)<br>Private Land Mobile (90) |
| 5255-5350<br>EARTH EXPLORATION-SATELLITE (active)<br>RADIOLOCATION<br>SPACE RESEARCH (active)<br>MOBILE except aeronautical mobile 5.446A 5.447F<br>5.447E 5.448 5.448A | | | 5255-5350<br>EARTH EXPLORATION-SATELLITE (active)<br>RADIOLOCATION G59<br>SPACE RESEARCH (active)<br>5.448A | 5255-5350<br>Earth exploration-satellite (active)<br>Radiolocation<br>Space research (active)<br>5.448A | |
| 5350-5460<br>EARTH EXPLORATION-SATELLITE (active) 5.448B<br>SPACE RESEARCH (active) 5.448C<br>AERONAUTICAL RADIONAVIGATION 5.449<br>RADIOLOCATION 5.448D | | | 5350-5460<br>EARTH EXPLORATION-SATELLITE (active) 5.448B<br>SPACE RESEARCH (active)<br>AERONAUTICAL RADIONAVIGATION 5.449<br>RADIOLOCATION G56<br>US390 G130 | 5350-5460<br>AERONAUTICAL RADIONAVIGATION 5.449<br>Earth exploration-satellite (active) 5.448B<br>Space research (active)<br>Radiolocation<br>US390 | Aviation (87)<br>Private Land Mobile (90) |

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|---|---|---|---|---|---|
| 5460-5470<br>RADIONAVIGATION 5.449<br>EARTH EXPLORATION-SATELLITE (active)<br>SPACE RESEARCH (active)<br>RADIOLOCATION 5.448D<br>5.448B | | | 5460-5470<br>RADIONAVIGATION 5.449 US65<br>EARTH EXPLORATION-SATELLITE (active)<br>SPACE RESEARCH (active)<br>RADIOLOCATION G56<br>5.448B US49 G130 | 5460-5470<br>RADIONAVIGATION 5.449 US65<br>Earth exploration-satellite (active)<br>Space research (active)<br>Radiolocation<br>5.448B US49 | Maritime (80)<br>Aviation (87)<br>Private Land Mobile (90) |
| 5470-5570<br>MARITIME RADIONAVIGATION<br>MOBILE except aeronautical mobile 5.446A 5.450A<br>EARTH EXPLORATION-SATELLITE (active)<br>SPACE RESEARCH (active)<br>RADIOLOCATION 5.450B<br>5.448B 5.450 5.451 | | | 5470-5570<br>MARITIME RADIONAVIGATION US65<br>EARTH EXPLORATION-SATELLITE (active)<br>SPACE RESEARCH (active)<br>RADIOLOCATION G56<br>5.448B US50 G131 | 5470-5570<br>MARITIME RADIONAVIGATION US65<br>RADIOLOCATION<br>Earth exploration-satellite (active)<br>Space research (active)<br>US50 | RF Devices (15)<br>Maritime (80)<br>Private Land Mobile (90) |
| 5570-5650<br>MARITIME RADIONAVIGATION<br>MOBILE except aeronautical mobile 5.446A 5.450A<br>RADIOLOCATION 5.450B<br>5.450 5.451 5.452 | | | 5570-5600<br>MARITIME RADIONAVIGATION US65<br>RADIOLOCATION G56<br>US50 G131 | 5570-5600<br>MARITIME RADIONAVIGATION US65<br>RADIOLOCATION<br>US50 | |
| | | | 5600-5650<br>MARITIME RADIONAVIGATION US65<br>METEOROLOGICAL AIDS<br>RADIOLOCATION G56<br>5.452 US50 G131 | 5600-5650<br>MARITIME RADIONAVIGATION US65<br>METEOROLOGICAL AIDS<br>RADIOLOCATION<br>5.452 US50 | |
| 5650-5725<br>MOBILE except aeronautical mobile 5.446A 5.450A<br>RADIOLOCATION<br>Amateur<br>Space research (deep space)<br>5.282 5.451 5.453 5.454 5.455 | | | 5650-5925<br>RADIOLOCATION G2 | 5650-5830<br>Amateur<br>5.150 5.282 | RF Devices (15)<br>ISM Equipment (18)<br>Amateur (97) |
| 5725-5830<br>FIXED-SATELLITE (Earth-to-space)<br>RADIOLOCATION<br>Amateur<br>5.150 5.451 5.453 5.455 5.456 | 5725-5830<br>RADIOLOCATION<br>Amateur<br>5.150 5.453 5.455 | | | | |
| 5830-5850<br>FIXED-SATELLITE (Earth-to-space)<br>RADIOLOCATION<br>Amateur<br>Amateur-satellite (space-to-Earth)<br>5.150 5.451 5.453 5.455 5.456 | 5830-5850<br>RADIOLOCATION<br>Amateur<br>Amateur-satellite (space-to-Earth)<br>5.150 5.453 5.455 | | | 5830-5850<br>Amateur<br>Amateur-satellite (space-to-Earth)<br>5.150 | |
| 5850-5925<br>FIXED<br>FIXED-SATELLITE (Earth-to-space)<br>MOBILE<br>5.150 | 5850-5925<br>FIXED<br>FIXED-SATELLITE (Earth-to-space)<br>MOBILE<br>Amateur<br>Radiolocation<br>5.150 | 5850-5925<br>FIXED<br>FIXED-SATELLITE (Earth-to-space)<br>MOBILE<br>Radiolocation<br>5.150 | 5.150 US245 | 5850-5925<br>FIXED-SATELLITE (Earth-to-space) US245<br>MOBILE NG160<br>Amateur<br>5.150 | ISM Equipment (18)<br>Private Land Mobile (90)<br>Personal Radio (95)<br>Amateur (97) |

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| 5925-6700<br>FIXED<br>FIXED-SATELLITE (Earth-to-space) 5.457A 5.457B<br>MOBILE<br>5.149 5.440 5.458 | | | 5925-6425<br>6425-6525<br>5.440 5.458<br>6525-6700<br>5.458 US342 | 5925-6425<br>FIXED NG41<br>FIXED-SATELLITE (Earth-to-space) NG181<br>6425-6525<br>FIXED-SATELLITE (Earth-to-space)<br>MOBILE<br>5.440 5.458<br>6525-6700<br>FIXED<br>FIXED-SATELLITE (Earth-to-space)<br>5.458 US342 | International Fixed (23)<br>Satellite Communications (25)<br>Fixed Microwave (101)<br>TV Broadcast Auxiliary (74F)<br>Cable TV Relay (78)<br>Fixed Microwave (101)<br>Fixed Microwave (101) |
| 6700-7075<br>FIXED<br>FIXED-SATELLITE (Earth-to-space) (space-to-Earth) 5.441<br>MOBILE<br>5.458 5.458A 5.458B 5.458C | | | 6700-7125<br>5.458 | 6700-6875<br>FIXED<br>FIXED-SATELLITE (Earth-to-space) (space-to-Earth) 5.441<br>5.458 5.458A 5.458B<br>6875-7025<br>FIXED NG118<br>FIXED-SATELLITE (Earth-to-space) (space-to-Earth) 5.441<br>MOBILE NG171<br>5.458 5.458A 5.458B<br>7025-7075<br>FIXED NG118<br>FIXED-SATELLITE (Earth-to-space) NG172<br>MOBILE NG171<br>5.458 5.458A 5.458B<br>7075-7125<br>FIXED NG118<br>MOBILE NG171<br>5.458 | Satellite Communications (25)<br>Fixed Microwave (101)<br>Satellite Communications (25)<br>TV Broadcast Auxiliary (74F)<br>Cable TV Relay (78)<br>TV Broadcast Auxiliary (74F)<br>Cable TV Relay (78) |
| 7075-7145<br>FIXED<br>MOBILE<br>5.458 5.459 | | | 7125-7145<br>FIXED<br>5.458 G116 | 7125-7190<br>5.458 US262 | |
| 7145-7235<br>FIXED<br>MOBILE<br>SPACE RESEARCH (Earth-to-space) 5.460<br>5.458 5.459 | | | 7145-7190<br>FIXED<br>SPACE RESEARCH (deep space) (Earth-to-space) US262<br>5.458 G116<br>7190-7235<br>FIXED<br>SPACE RESEARCH (Earth-to-space) G133<br>5.458 | 7190-7235<br>5.458 | |

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| 7235-7250<br>FIXED<br>MOBILE<br><br>5.458 | 7235-7250<br>FIXED<br><br>5.458 | 7235-7250<br><br>5.458 | |
| 7250-7300<br>FIXED<br>FIXED-SATELLITE (space-to-Earth)<br>MOBILE<br><br>5.461 | 7250-7300<br>FIXED-SATELLITE (space-to-Earth)<br>MOBILE-SATELLITE (space-to-Earth)<br>Fixed<br><br>G117 | 7250-8025 | |
| 7300-7450<br>FIXED<br>FIXED-SATELLITE (space-to-Earth)<br>MOBILE except aeronautical mobile<br><br>5.461 | 7300-7450<br>FIXED<br>FIXED-SATELLITE (space-to-Earth)<br>Mobile-satellite (space-to-Earth)<br><br>G117 | | |
| 7450-7550<br>FIXED<br>FIXED-SATELLITE (space-to-Earth)<br>METEOROLOGICAL-SATELLITE (space-to-Earth)<br>MOBILE except aeronautical mobile<br><br>5.461A | 7450-7550<br>FIXED<br>FIXED-SATELLITE (space-to-Earth)<br>METEOROLOGICAL-SATELLITE (space-to-Earth)<br>Mobile-satellite (space-to-Earth)<br><br>G104 G117 | | |
| 7550-7750<br>FIXED<br>FIXED-SATELLITE (space-to-Earth)<br>MOBILE except aeronautical mobile | 7550-7750<br>FIXED<br>FIXED-SATELLITE (space-to-Earth)<br>Mobile-satellite (space-to-Earth)<br><br>G117 | | |
| 7750-7850<br>FIXED<br>METEOROLOGICAL-SATELLITE (space-to-Earth) 5.461B<br>MOBILE except aeronautical mobile | 7750-7850<br>FIXED<br>METEOROLOGICAL-SATELLITE (space-to-Earth)<br><br>5.461B | | |
| 7850-7900<br>FIXED<br>MOBILE except aeronautical mobile | 7850-7900<br>FIXED | | |
| 7900-8025<br>FIXED<br>FIXED-SATELLITE (Earth-to-space)<br>MOBILE<br><br>5.461 | 7900-8025<br>FIXED-SATELLITE (Earth-to-space)<br>MOBILE-SATELLITE (Earth-to-space)<br>Fixed<br><br>G117 | | |

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| 8025-8175<br>EARTH EXPLORATION-SATELLITE (space-to-Earth)<br>FIXED<br>FIXED-SATELLITE (Earth-to-space)<br>MOBILE 5.463<br><br>5.462A | | | 8025-8175<br>EARTH EXPLORATION-SATELLITE (space-to-Earth)<br>FIXED<br>FIXED-SATELLITE (Earth-to-space)<br>Mobile-satellite (Earth-to-space) (no airborne transmissions)<br><br>US258 G117 | 8025-8400 | |
| 8175-8215<br>EARTH EXPLORATION-SATELLITE (space-to-Earth)<br>FIXED<br>FIXED-SATELLITE (Earth-to-space)<br>METEOROLOGICAL-SATELLITE (Earth-to-space)<br>MOBILE 5.463<br><br>5.462A | | | 8175-8215<br>EARTH EXPLORATION-SATELLITE (space-to-Earth)<br>FIXED<br>FIXED-SATELLITE (Earth-to-space)<br>METEOROLOGICAL-SATELLITE (Earth-to-space)<br>Mobile-satellite (Earth-to-space) (no airborne transmissions)<br><br>US258 G104 G117 | | |
| 8215-8400<br>EARTH EXPLORATION-SATELLITE (space-to-Earth)<br>FIXED<br>FIXED-SATELLITE (Earth-to-space)<br>MOBILE 5.463<br><br>5.462A | | | 8215-8400<br>EARTH EXPLORATION-SATELLITE (space-to-Earth)<br>FIXED<br>FIXED-SATELLITE (Earth-to-space)<br>Mobile-satellite (Earth-to-space) (no airborne transmissions)<br><br>US258 G117 | US258 | |
| 8400-8500<br>FIXED<br>MOBILE except aeronautical mobile<br>SPACE RESEARCH (space-to-Earth) 5.465 5.466 | | | 8400-8450<br>FIXED<br>SPACE RESEARCH (deep space) (space-to-Earth) | 8400-8450<br>Space research (deep space) (space-to-Earth) | |
| | | | 8450-8500<br>FIXED<br>SPACE RESEARCH (space-to-Earth) | 8450-8500<br>SPACE RESEARCH (space-to-Earth) | |
| 8500-8550<br>RADIOLOCATION<br><br>5.468 5.469 | | | 8500-8550<br>RADIOLOCATION G59 | 8500-8550<br>Radiolocation | Private Land Mobile (90) |
| 8550-8650<br>EARTH EXPLORATION-SATELLITE (active)<br>RADIOLOCATION<br>SPACE RESEARCH (active)<br><br>5.468 5.469 5.469A | | | 8550-8650<br>EARTH EXPLORATION-SATELLITE (active)<br>RADIOLOCATION G59<br>SPACE RESEARCH (active) | 8550-8650<br>Earth exploration-satellite (active)<br>Radiolocation<br>Space research (active) | |

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| 8650-8750<br>RADIOLOCATION<br><br>5.468 5.469 | 8650-9000<br>RADIOLOCATION G59 | 8650-9000<br>Radiolocation | Aviation (87)<br>Private Land Mobile (90) |
| 8750-8850<br>RADIOLOCATION<br>AERONAUTICAL RADIONAVIGATION 5.470<br><br>5.471 | | | |
| 8850-9000<br>RADIOLOCATION<br>MARITIME RADIONAVIGATION 5.472<br><br>5.473 | US53 | US53 | |
| 9000-9200<br>AERONAUTICAL RADIONAVIGATION 5.337<br>Radiolocation<br><br>5.471 | 9000-9200<br>AERONAUTICAL RADIONAVIGATION 5.337<br>Radiolocation G2<br><br>US48 G19 | 9000-9200<br>AERONAUTICAL RADIONAVIGATION 5.337<br>Radiolocation<br><br>US48 | |
| 9200-9300<br>RADIOLOCATION<br>MARITIME RADIONAVIGATION 5.472<br><br>5.473 5.474 | 9200-9300<br>MARITIME RADIONAVIGATION 5.472<br>Radiolocation US110 G59<br><br>5.474 | 9200-9300<br>MARITIME RADIONAVIGATION 5.472<br>Radiolocation US110<br><br>5.474 | Maritime (80)<br>Private Land Mobile (90) |
| 9300-9500<br>RADIONAVIGATION 5.476<br>Radiolocation<br><br>5.427 5.474 5.475 | 9300-9500<br>RADIONAVIGATION 5.476 US66<br>Radiolocation US51 G56<br>Meteorological aids<br><br>5.427 5.474 US67 US71 | 9300-9500<br>RADIONAVIGATION 5.476 US66<br>Radiolocation US51<br>Meteorological aids<br><br>5.427 5.474 US67 US71 | Maritime (80)<br>Aviation (87)<br>Private Land Mobile (90) |
| 9500-9800<br>EARTH EXPLORATION-SATELLITE (active)<br>RADIOLOCATION<br>RADIONAVIGATION<br>SPACE RESEARCH (active)<br><br>5.476A | 9500-9800<br>EARTH EXPLORATION-SATELLITE (active)<br>RADIOLOCATION<br>SPACE RESEARCH (active) | 9500-9800<br>Earth exploration-satellite (active)<br>Radiolocation<br>Space research (active) | Private Land Mobile (90) |
| 9800-10000<br>RADIOLOCATION<br>Fixed<br><br>5.477 5.478 5.479 | 9800-10000<br>RADIOLOCATION<br><br>5.479 | 9800-10000<br>Radiolocation<br><br>5.479 | |

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|---|---|---|---|---|---|
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| 10-10.45<br>FIXED<br>MOBILE<br>RADIOLOCATION<br>Amateur<br>5.479 | 10-10.45<br>RADIOLOCATION<br>Amateur<br>5.479 5.480 | 10-10.45<br>FIXED<br>MOBILE<br>RADIOLOCATION<br>Amateur<br>5.479 | 10-10.45<br>RADIOLOCATION G32<br>5.479 US58 US108 | 10-10.45<br>Amateur<br>Radiolocation<br>5.479 US58 US108 NG42 | Private Land Mobile (90)<br>Amateur (97) |
| 10.45-10.5<br>RADIOLOCATION<br>Amateur<br>Amateur-satellite<br>5.481 | | | 10.45-10.5<br>RADIOLOCATION G32<br>US58 US108 | 10.45-10.5<br>Amateur<br>Amateur-satellite<br>Radiolocation<br>US58 US108 NG42 NG134 | |
| 10.5-10.55<br>FIXED<br>MOBILE<br>Radiolocation | 10.5-10.55<br>FIXED<br>MOBILE<br>RADIOLOCATION | | 10.5-10.55<br>RADIOLOCATION<br>US59 | | Private Land Mobile (90) |
| 10.55-10.6<br>FIXED<br>MOBILE except aeronautical mobile<br>Radiolocation | | | 10.55-10.6 | 10.55-10.6<br>FIXED | Fixed Microwave (101) |
| 10.6-10.68<br>EARTH EXPLORATION-SATELLITE (passive)<br>FIXED<br>MOBILE except aeronautical mobile<br>RADIO ASTRONOMY<br>SPACE RESEARCH (passive)<br>Radiolocation<br>5.149 5.482 | | | 10.6-10.68<br>EARTH EXPLORATION-SATELLITE (passive)<br>SPACE RESEARCH (passive)<br>US265 US277 | 10.6-10.68<br>EARTH EXPLORATION-SATELLITE (passive)<br>FIXED US265<br>SPACE RESEARCH (passive)<br>US277 | |
| 10.68-10.7<br>EARTH EXPLORATION-SATELLITE (passive)<br>RADIO ASTRONOMY<br>SPACE RESEARCH (passive)<br>5.340 5.483 | | | 10.68-10.7<br>EARTH EXPLORATION-SATELLITE (passive)<br>RADIO ASTRONOMY US74<br>SPACE RESEARCH (passive)<br>US246 US355 | | |
| 10.7-11.7<br>FIXED<br>FIXED-SATELLITE (space-to-Earth) 5.441 5.484A (Earth-to-space) 5.484<br>MOBILE except aeronautical mobile | 10.7-11.7<br>FIXED<br>FIXED-SATELLITE (space-to-Earth) 5.441 5.484A<br>MOBILE except aeronautical mobile | | 10.7-11.7<br>US211 | 10.7-11.7<br>FIXED<br>FIXED-SATELLITE (space-to-Earth) 5.441 US211 US355 NG104 NG182 | Satellite Communications (25)<br>Fixed Microwave (101) |
| 11.7-12.5<br>FIXED<br>MOBILE except aeronautical mobile<br>BROADCASTING<br>BROADCASTING-SATELLITE | 11.7-12.1<br>FIXED 5.486<br>FIXED-SATELLITE (space-to-Earth) 5.484A<br>Mobile except aeronautical mobile<br>5.485 5.488<br>12.1-12.2<br>FIXED-SATELLITE (space-to-Earth) 5.484A<br>5.485 5.488 5.489 | 11.7-12.2<br>FIXED<br>MOBILE except aeronautical mobile<br>BROADCASTING<br>BROADCASTING-SATELLITE<br>5.487 5.487A 5.492 | 11.7-12.2 | 11.7-12.2<br>FIXED-SATELLITE (space-to-Earth) NG143 NG145 NG183<br>5.488 NG184 | Satellite Communications (25) |

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|---|---|---|---|---|---|
| 5.487 5.487A 5.492 | 12.2-12.7<br>FIXED<br>MOBILE except aeronautical mobile<br>BROADCASTING<br>BROADCASTING-SATELLITE<br>5.487A 5.488 5.490 5.492 | 12.2-12.5<br>FIXED<br>FIXED-SATELLITE (space-to-Earth)<br>MOBILE except aeronautical mobile<br>BROADCASTING<br>5.484A 5.487 | 12.2-12.75 | 12.2-12.7<br>FIXED<br>BROADCASTING-SATELLITE<br>5.487A 5.488 5.490 | Satellite Communications (25)<br>Fixed Microwave (101) |
| 12.5-12.75<br>FIXED-SATELLITE (space-to-Earth) 5.484A (Earth-to-space)<br>5.494 5.495 5.496 | 12.7-12.75<br>FIXED<br>FIXED-SATELLITE (Earth-to-space)<br>MOBILE except aeronautical mobile | 12.5-12.75<br>FIXED<br>FIXED-SATELLITE (space-to-Earth) 5.484A<br>MOBILE except aeronautical mobile<br>BROADCASTING-SATELLITE 5.493 | | 12.7-12.75<br>FIXED NG118<br>FIXED-SATELLITE (Earth-to-space)<br>MOBILE | TV Broadcast Auxiliary (74F)<br>Cable TV Relay (78)<br>Fixed Microwave (101) |
| 12.75-13.25<br>FIXED<br>FIXED-SATELLITE (Earth-to-space) 5.441<br>MOBILE<br>Space research (deep space) (space-to-Earth) | | | 12.75-13.25<br>US251 | 12.75-13.25<br>FIXED NG118<br>FIXED-SATELLITE (Earth-to-space) 5.441 NG104<br>MOBILE<br>US251 NG53 | Satellite Communications (25)<br>TV Broadcast Auxiliary (74F)<br>Cable TV Relay (78)<br>Fixed Microwave (101) |
| 13.25-13.4<br>EARTH EXPLORATION-SATELLITE (active)<br>AERONAUTICAL RADIONAVIGATION 5.497<br>SPACE RESEARCH (active)<br>5.498A 5.499 | | | 13.25-13.4<br>EARTH EXPLORATION-SATELLITE (active)<br>AERONAUTICAL RADIONAVIGATION 5.497<br>SPACE RESEARCH (active)<br>5.498A | 13.25-13.4<br>AERONAUTICAL RADIONAVIGATION 5.497<br>Earth exploration-satellite (active)<br>Space research (active) | Aviation (87) |
| 13.4-13.75<br>EARTH EXPLORATION-SATELLITE (active)<br>RADIOLOCATION<br>SPACE RESEARCH 5.501A<br>Standard frequency and time signal-satellite (Earth-to-space)<br>5.499 5.500 5.501 5.501B | | | 13.4-13.75<br>EARTH EXPLORATION-SATELLITE (active)<br>RADIOLOCATION G59<br>SPACE RESEARCH 5.501A<br>Standard frequency and time signal-satellite (Earth-to-space)<br>5.501B | 13.4-13.75<br>Earth exploration-satellite (active)<br>Radiolocation<br>Space research<br>Standard frequency and time signal-satellite (Earth-to-space) | Private Land Mobile (90) |
| 13.75-14<br>FIXED-SATELLITE (Earth-to-space) 5.484A<br>RADIOLOCATION<br>Earth exploration-satellite<br>Standard frequency and time signal-satellite (Earth-to-space)<br>Space research<br>5.499 5.500 5.501 5.502 5.503 | | | 13.75-14<br>RADIOLOCATION G59<br>Standard frequency and time signal-satellite (Earth-to-space)<br>Space research US337<br>US356 US357 | 13.75-14<br>FIXED-SATELLITE (Earth-to-space) US337<br>Standard frequency and time signal-satellite (Earth-to-space)<br>Space research<br>Radiolocation<br>US356 US357 | Satellite Communications (25)<br>Private Land Mobile (90) |
| 14-14.25<br>FIXED-SATELLITE (Earth-to-space) 5.457A 5.457B 5.484A 5.506 5.506B<br>RADIONAVIGATION 5.504<br>Mobile-satellite (Earth-to-space) 5.504C 5.506A<br>Space research<br>5.504A 5.505 | | | 14-14.2<br>Space research | 14-14.2<br>FIXED-SATELLITE (Earth-to-space) NG183<br>Mobile-satellite (Earth-to-space)<br>Space research | Satellite Communications (25) |

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| (See previous page) | | | 14.2-14.4 | 14.2-14.47<br>FIXED-SATELLITE (Earth-to-space) NG183<br>Mobile-satellite (Earth-to-space)<br>NG184 | Satellite Communications (25) |
| 14.25-14.3<br>FIXED-SATELLITE (Earth-to-space) 5.457A 5.457B 5.484A 5.506 5.506B<br>RADIONAVIGATION 5.504<br>Mobile-satellite (Earth-to-space) 5.506A 5.508A<br>Space research<br>5.504A 5.505 5.508 5.509 | | | | | |
| 14.3-14.4<br>FIXED<br>FIXED-SATELLITE (Earth-to-space) 5.457A 5.457B 5.484A 5.506 5.506B<br>MOBILE except aeronautical mobile<br>Mobile-satellite (Earth-to-space) 5.506A 5.509A<br>Radionavigation-satellite<br>5.504A | 14.3-14.4<br>FIXED-SATELLITE (Earth-to-space) 5.457A 5.484A 5.506 5.506B<br>Mobile-satellite (Earth-to-space) 5.506A<br>Radionavigation-satellite<br>5.504A | 14.3-14.4<br>FIXED<br>FIXED-SATELLITE (Earth-to-space) 5.457A 5.484A 5.506 5.506B<br>MOBILE except aeronautical mobile<br>Mobile-satellite (Earth-to-space) 5.506A 5.509A<br>Radionavigation-satellite<br>5.504A | | | |
| 14.4-14.47<br>FIXED<br>FIXED-SATELLITE (Earth-to-space) 5.457A 5.457B 5.484A 5.506 5.506B<br>MOBILE except aeronautical mobile<br>Mobile-satellite (Earth-to-space) 5.506A 5.509A<br>Space research (space-to-Earth)<br>5.504A | | | 14.4-14.47<br>Fixed<br>Mobile | | |
| 14.47-14.5<br>FIXED<br>FIXED-SATELLITE (Earth-to-space) 5.457A 5.457B 5.484A 5.506 5.506B<br>MOBILE except aeronautical mobile<br>Mobile-satellite (Earth-to-space) 5.504B 5.506A 5.509A<br>Radio astronomy<br>5.149 5.504A | | | 14.47-14.5<br>Fixed<br>Mobile<br>US203 US342 | 14.47-14.5<br>FIXED-SATELLITE (Earth-to-space) NG183<br>Mobile-satellite (Earth-to-space)<br>US203 US342 | |
| 14.5-14.8<br>FIXED<br>FIXED-SATELLITE (Earth-to-space) 5.510<br>MOBILE<br>Space research | | | 14.5-14.7145<br>FIXED<br>Mobile<br>Space research<br>14.7145-14.8<br>MOBILE<br>Fixed<br>Space research | 14.5-14.8 | |
| 14.8-15.35<br>FIXED<br>MOBILE<br>Space research<br>5.339 | | | 14.8-15.1365<br>MOBILE<br>SPACE RESEARCH<br>Fixed<br>US310<br>15.1365-15.35<br>FIXED<br>SPACE RESEARCH<br>Mobile<br>5.339 US211 | 14.8-15.1365<br>US310<br>15.1365-15.35<br>5.339 US211 | |

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| 15.35-15.4<br>EARTH EXPLORATION-SATELLITE (passive)<br>RADIO ASTRONOMY<br>SPACE RESEARCH (passive)<br><br>5.340 5.511 | | | 15.35-15.4<br>EARTH EXPLORATION-SATELLITE (passive)<br>RADIO ASTRONOMY US74<br>SPACE RESEARCH (passive)<br><br>US246 | | |
| 15.4-15.43<br>AERONAUTICAL RADIONAVIGATION<br><br>5.511D | | | 15.4-15.43<br>AERONAUTICAL RADIONAVIGATION US260<br><br>US211 | | Aviation (87) |
| 15.43-15.63<br>FIXED-SATELLITE (Earth-to-space) 5.511A<br>AERONAUTICAL RADIONAVIGATION<br><br>5.511C | | | 15.43-15.63<br>AERONAUTICAL RADIONAVIGATION US260<br><br>5.511C US211 US359 | 15.43-15.63<br>FIXED-SATELLITE (Earth-to-space)<br>AERONAUTICAL RADIONAVIGATION US260<br><br>5.511C US211 US359 | Satellite Communications (25)<br>Aviation (87) |
| 15.63-15.7<br>AERONAUTICAL RADIONAVIGATION<br><br>5.511D | | | 15.63-15.7<br>AERONAUTICAL RADIONAVIGATION US260<br><br>US211 | | Aviation (87) |
| 15.7-16.6<br>RADIOLOCATION<br><br>5.512 5.513 | | | 15.7-16.6<br>RADIOLOCATION G59 | 15.7-17.2<br>Radiolocation | Private Land Mobile (90) |
| 16.6-17.1<br>RADIOLOCATION<br>Space research (deep space) (Earth-to-space)<br><br>5.512 5.513 | | | 16.6-17.1<br>RADIOLOCATION G59<br>Space research (deep space) (Earth-to-space) | | |
| 17.1-17.2<br>RADIOLOCATION<br><br>5.512 5.513 | | | 17.1-17.2<br>RADIOLOCATION G59 | | |
| 17.2-17.3<br>EARTH EXPLORATION-SATELLITE (active)<br>RADIOLOCATION<br>SPACE RESEARCH (active)<br><br>5.512 5.513 5.513A | | | 17.2-17.3<br>EARTH EXPLORATION-SATELLITE (active)<br>RADIOLOCATION G59<br>SPACE RESEARCH (active) | 17.2-17.3<br>Earth exploration-satellite (active)<br>Radiolocation<br>Space research (active) | |
| 17.3-17.7<br>FIXED-SATELLITE (Earth-to-space) 5.516 (space-to-Earth) 5.516A 5.516B<br>Radiolocation<br><br>5.514 | 17.3-17.7<br>FIXED-SATELLITE (Earth-to-space) 5.516<br>BROADCASTING-SATELLITE<br>Radiolocation<br><br>5.514 5.515 5.517 | 17.3-17.7<br>FIXED-SATELLITE (Earth-to-space) 5.516<br>Radiolocation<br><br>5.514 | 17.3-17.7<br>Radiolocation US259 G59<br><br>US402 G117 | 17.3-17.7<br>FIXED-SATELLITE (Earth-to-space) US271<br>BROADCASTING-SATELLITE US402 NG163<br><br>US259 | Satellite Communications (25) |

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| 17.7-18.1<br>FIXED<br>FIXED-SATELLITE (space-to-Earth) 5.484A (Earth-to-space) 5.516<br>MOBILE | 17.7-17.8<br>FIXED<br>FIXED-SATELLITE (space-to-Earth) (Earth-to-space) 5.516<br>BROADCASTING-SATELLITE<br>Mobile 5.518<br>5.515 5.517 | 17.7-18.1<br>FIXED<br>FIXED-SATELLITE (space-to-Earth) 5.484A (Earth-to-space) 5.516<br>MOBILE | 17.7-17.8<br>US401 | 17.7-17.8<br>FIXED<br>FIXED-SATELLITE (Earth-to-space) US271<br>US401 NG144 | Satellite Communications (25)<br>TV Broadcast Auxiliary (74F)<br>Cable TV Relay (78)<br>Fixed Microwave (101) |
| | 17.8-18.1<br>FIXED<br>FIXED-SATELLITE (space-to-Earth) 5.484A (Earth-to-space) 5.516<br>MOBILE | | 17.8-18.3<br>FIXED-SATELLITE (space-to-Earth) G117<br>5.519 US334 | 17.8-18.3<br>FIXED<br>5.519 US334 NG144 | TV Broadcast Auxiliary (74F)<br>Cable TV Relay (78)<br>Fixed Microwave (101) |
| 18.1-18.4<br>FIXED<br>FIXED-SATELLITE (space-to-Earth) 5.484A 5.516B (Earth-to-space) 5.520<br>MOBILE<br>5.519 5.521 | | | 18.3-18.6<br>FIXED-SATELLITE (space-to-Earth) G117<br>US334 | 18.3-18.6<br>FIXED-SATELLITE (space-to-Earth) NG164<br>US334 NG144 | Satellite Communications (25) |
| 18.4-18.6<br>FIXED<br>FIXED-SATELLITE (space-to-Earth) 5.484A 5.516B<br>MOBILE | | | | | |
| 18.6-18.8<br>EARTH EXPLORATION-SATELLITE (passive)<br>FIXED<br>FIXED-SATELLITE (space-to-Earth) 5.522B<br>MOBILE except aeronautical mobile<br>Space research (passive)<br>5.522A 5.522C | 18.6-18.8<br>EARTH EXPLORATION-SATELLITE (passive)<br>FIXED<br>FIXED-SATELLITE (space-to-Earth) 5.516B 5.522B<br>MOBILE except aeronautical mobile<br>SPACE RESEARCH (passive)<br>5.522A | 18.6-18.8<br>EARTH EXPLORATION-SATELLITE (passive)<br>FIXED<br>FIXED-SATELLITE (space-to-Earth) 5.522B<br>MOBILE except aeronautical mobile<br>Space research (passive)<br>5.522A | 18.6-18.8<br>EARTH EXPLORATION-SATELLITE (passive)<br>FIXED-SATELLITE (space-to-Earth) US255 G117<br>SPACE RESEARCH (passive)<br>US254 US334 | 18.6-18.8<br>EARTH EXPLORATION-SATELLITE (passive)<br>FIXED-SATELLITE (space-to-Earth) US255 NG164<br>SPACE RESEARCH (passive)<br>US254 US334 NG144 | |
| 18.8-19.3<br>FIXED<br>FIXED-SATELLITE (space-to-Earth) 5.516B 5.523A<br>MOBILE | | | 18.8-20.2<br>FIXED-SATELLITE (space-to-Earth) G117 | 18.8-19.3<br>FIXED-SATELLITE (space-to-Earth) NG165<br>US334 NG144 | |
| 19.3-19.7<br>FIXED<br>FIXED-SATELLITE (space-to-Earth) (Earth-to-space) 5.523B 5.523C 5.523D 5.523E<br>MOBILE | | | | 19.3-19.7<br>FIXED<br>FIXED-SATELLITE (space-to-Earth) NG166<br>US334 NG144 | Satellite Communications (25)<br>TV Broadcast Auxiliary (74F)<br>Cable TV Relay (78)<br>Fixed Microwave (101) |
| 19.7-20.1<br>FIXED-SATELLITE (space-to-Earth) 5.484A 5.516B<br>Mobile-satellite (space-to-Earth)<br>5.524 | 19.7-20.1<br>FIXED-SATELLITE (space-to-Earth) 5.484A 5.516B<br>MOBILE-SATELLITE (space-to-Earth)<br>5.524 5.525 5.526 5.527 5.528 5.529 | 19.7-20.1<br>FIXED-SATELLITE (space-to-Earth) 5.484A 5.516B<br>Mobile-satellite (space-to-Earth)<br>5.524 | | 19.7-20.1<br>FIXED-SATELLITE (space-to-Earth)<br>MOBILE-SATELLITE (space-to-Earth)<br>5.525 5.526 5.527 5.528 5.529 US334 | Satellite Communications (25) |
| 20.1-20.2<br>FIXED-SATELLITE (space-to-Earth) 5.484A 5.516B<br>MOBILE-SATELLITE (space-to-Earth)<br>5.524 5.525 5.526 5.527 5.528 | | | US334 | 20.1-20.2<br>FIXED-SATELLITE (space-to-Earth)<br>MOBILE-SATELLITE (space-to-Earth)<br>5.525 5.526 5.527 5.528 US334 | |

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|---|---|---|---|---|---|
| 20.2-21.2<br>FIXED-SATELLITE (space-to-Earth)<br>MOBILE-SATELLITE (space-to-Earth)<br>Standard frequency and time signal-satellite (space-to-Earth)<br><br>5.524 | | | 20.2-21.2<br>FIXED-SATELLITE (space-to-Earth)<br>MOBILE-SATELLITE (space-to-Earth)<br>Standard frequency and time signal-satellite (space-to-Earth)<br><br>G117 | 20.2-21.2<br>Standard frequency and time signal-satellite (space-to-Earth) | |
| 21.2-21.4<br>EARTH EXPLORATION-SATELLITE (passive)<br>FIXED<br>MOBILE<br>SPACE RESEARCH (passive) | | | 21.2-21.4<br>EARTH EXPLORATION-SATELLITE (passive)<br>FIXED<br>MOBILE<br>SPACE RESEARCH (passive)<br><br>US263 | | Fixed Microwave (101) |
| 21.4-22<br>FIXED<br>MOBILE<br>BROADCASTING-SATELLITE<br>5.347A 5.530 | 21.4-22<br>FIXED<br>MOBILE | 21.4-22<br>FIXED<br>MOBILE<br>BROADCASTING-SATELLITE<br>5.347A 5.530<br><br>5.531 | 21.4-22<br>FIXED<br>MOBILE | | |
| 22-22.21<br>FIXED<br>MOBILE except aeronautical mobile<br><br>5.149 | | | 22-22.21<br>FIXED<br>MOBILE except aeronautical mobile<br><br>US342 | | |
| 22.21-22.5<br>EARTH EXPLORATION-SATELLITE (passive)<br>FIXED<br>MOBILE except aeronautical mobile<br>RADIO ASTRONOMY<br>SPACE RESEARCH (passive)<br><br>5.149 5.532 | | | 22.21-22.5<br>EARTH EXPLORATION-SATELLITE (passive)<br>FIXED<br>MOBILE except aeronautical mobile<br>RADIO ASTRONOMY<br>SPACE RESEARCH (passive)<br><br>US263 US342 | | |
| 22.5-22.55<br>FIXED<br>MOBILE | | | 22.5-22.55<br>FIXED<br>MOBILE<br><br>US211 | | |
| 22.55-23.55<br>FIXED<br>INTER-SATELLITE<br>MOBILE<br><br>5.149 | | | 22.55-23.55<br>FIXED<br>INTER-SATELLITE US278<br>MOBILE<br><br>US342 | | Satellite Communications (25)<br>Fixed Microwave (101) |
| 23.55-23.6<br>FIXED<br>MOBILE | | | 23.55-23.6<br>FIXED<br>MOBILE | | Fixed Microwave (101) |

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| 23.6-24<br>EARTH EXPLORATION-SATELLITE (passive)<br>RADIO ASTRONOMY<br>SPACE RESEARCH (passive)<br>5.340 | | | 23.6-24<br>EARTH EXPLORATION-SATELLITE (passive)<br>RADIO ASTRONOMY US74<br>SPACE RESEARCH (passive)<br>US246 | | |
| 24-24.05<br>AMATEUR<br>AMATEUR-SATELLITE<br>5.150 | | | 24-24.05<br>5.150 US211 | 24-24.05<br>AMATEUR<br>AMATEUR-SATELLITE<br>5.150 US211 | ISM Equipment (18)<br>Amateur (97) |
| 24.05-24.25<br>RADIOLOCATION<br>Amateur<br>Earth exploration-satellite (active)<br>5.150 | | | 24.05-24.25<br>RADIOLOCATION G59<br>Earth exploration-satellite (active)<br>5.150 | 24.05-24.25<br>Amateur<br>Earth exploration-satellite (active)<br>Radiolocation<br>5.150 | ISM Equipment (18)<br>Private Land Mobile (90)<br>Amateur (97) |
| 24.25-24.45<br>FIXED | 24.25-24.45<br>RADIONAVIGATION | 24.25-24.45<br>RADIONAVIGATION<br>FIXED<br>MOBILE | 24.25-24.45 | 24.25-24.45<br>FIXED | Fixed Microwave (101) |
| 24.45-24.75<br>FIXED<br>INTER-SATELLITE | 24.45-24.65<br>INTER-SATELLITE<br>RADIONAVIGATION<br>5.533 | 24.45-24.65<br>FIXED<br>INTER-SATELLITE<br>MOBILE<br>RADIONAVIGATION<br>5.533 | 24.45-24.65<br>INTER-SATELLITE<br>RADIONAVIGATION<br>5.533 | | Satellite Communications (25) |
| | 24.65-24.75<br>INTER-SATELLITE<br>RADIOLOCATION-SATELLITE (Earth-to-space) | 24.65-24.75<br>FIXED<br>INTER-SATELLITE<br>MOBILE<br>5.533 | 24.65-24.75<br>INTER-SATELLITE<br>RADIOLOCATION-SATELLITE (Earth-to-space) | | |
| 24.75-25.25<br>FIXED | 24.75-25.25<br>FIXED-SATELLITE (Earth-to-space) 5.535 | 24.75-25.25<br>FIXED<br>FIXED-SATELLITE (Earth-to-space) 5.535<br>MOBILE | 24.75-25.05<br>RADIONAVIGATION | 24.75-25.05<br>FIXED-SATELLITE (Earth-to-space) NG167<br>RADIONAVIGATION | Satellite Communications (25)<br>Aviation (87) |
| | | | 25.05-25.25 | 25.05-25.25<br>FIXED<br>FIXED-SATELLITE (Earth-to-space) NG167 | Satellite Communications (25)<br>Fixed Microwave (101) |
| 25.25-25.5<br>FIXED<br>INTER-SATELLITE 5.536<br>MOBILE<br>Standard frequency and time signal-satellite (Earth-to-space) | | | 25.25-25.5<br>FIXED<br>INTER-SATELLITE 5.536<br>MOBILE<br>Standard frequency and time signal-satellite (Earth-to-space) | 25.25-25.5<br>Inter-satellite 5.536<br>Standard frequency and time signal-satellite (Earth-to-space) | |

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| 25.5-27<br>EARTH EXPLORATION-SATELLITE (space-to-Earth) 5.536B<br>FIXED<br>INTER-SATELLITE 5.536<br>MOBILE<br>SPACE RESEARCH (space-to-Earth) 5.536C<br>Standard frequency and time signal-satellite (Earth-to-space)<br>5.536A | | | 25.5-27<br>EARTH EXPLORATION-SATELLITE (space-to-Earth)<br>FIXED<br>INTER-SATELLITE 5.536<br>MOBILE<br>SPACE RESEARCH (space-to-Earth)<br>Standard frequency and time signal-satellite (Earth-to-space)<br>5.536A US258 | 25.5-27<br>Inter-satellite 5.536<br>Standard frequency and time signal-satellite (Earth-to-space)<br>5.536A US258 | |
| 27-27.5<br>FIXED<br>INTER-SATELLITE 5.536<br>MOBILE | 27-27.5<br>FIXED<br>FIXED-SATELLITE (Earth-to-space)<br>INTER-SATELLITE 5.536 5.537<br>MOBILE | | 27-27.5<br>FIXED<br>INTER-SATELLITE 5.536<br>MOBILE | 27-27.5<br>Inter-satellite 5.536 | |
| 27.5-28.5<br>FIXED 5.537A<br>FIXED-SATELLITE (Earth-to-space) 5.484A 5.516B 5.539<br>MOBILE<br>5.538 5.540 | | | 27.5-30 | 27.5-29.5<br>FIXED<br>FIXED-SATELLITE (Earth-to-space)<br>MOBILE | Satellite Communications (25)<br>Fixed Microwave (101) |
| 28.5-29.1<br>FIXED<br>FIXED-SATELLITE (Earth-to-space) 5.484A 5.516B 5.523A 5.539<br>MOBILE<br>Earth exploration-satellite (Earth-to-space) 5.541<br>5.540 | | | | | |
| 29.1-29.5<br>FIXED<br>FIXED-SATELLITE (Earth-to-space) 5.516B 5.523C 5.523E 5.535A 5.539 5.541A<br>MOBILE<br>Earth exploration-satellite (Earth-to-space) 5.541<br>5.540 | | | | | |
| 29.5-29.9<br>FIXED-SATELLITE (Earth-to-space) 5.484A 5.516B 5.539<br>Earth exploration-satellite (Earth-to-space) 5.541<br>Mobile-satellite (Earth-to-space)<br>5.540 5.542 | 29.5-29.9<br>FIXED-SATELLITE (Earth-to-space) 5.484A 5.516B 5.539<br>MOBILE-SATELLITE (Earth-to-space)<br>Earth exploration-satellite (Earth-to-space) 5.541<br>5.525 5.526 5.527 5.529 5.540 5.542 | 29.5-29.9<br>FIXED-SATELLITE (Earth-to-space) 5.484A 5.516B 5.539<br>Earth exploration-satellite (Earth-to-space) 5.541<br>Mobile-satellite (Earth-to-space)<br>5.540 5.542 | | 29.5-29.9<br>FIXED-SATELLITE (Earth-to-space)<br>MOBILE-SATELLITE (Earth-to-space)<br>5.525 5.526 5.527 5.529 | Satellite Communications (25) |
| 29.9-30<br>FIXED-SATELLITE (Earth-to-space) 5.484A 5.516B 5.539<br>MOBILE-SATELLITE (Earth-to-space)<br>Earth exploration-satellite (Earth-to-space) 5.541 5.543<br>5.525 5.526 5.527 5.538 5.540 5.542 | | | | 29.9-30<br>FIXED-SATELLITE (Earth-to-space)<br>MOBILE-SATELLITE (Earth-to-space)<br>5.525 5.526 5.527 5.543 | |

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| 31-31.3<br>FIXED 5.543A<br>MOBILE<br>Standard frequency and time signal-satellite (space-to-Earth)<br>Space research 5.544 5.545<br>5.149 | | | 31-31.3<br>Standard frequency and time signal-satellite (space-to-Earth)<br>US211 US342 | 31-31.3<br>FIXED<br>MOBILE<br>Standard frequency and time signal-satellite (space-to-Earth)<br>US211 US342 | Fixed Microwave (101) |
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| 31.5-31.8<br>EARTH EXPLORATION-SATELLITE (passive)<br>RADIO ASTRONOMY<br>SPACE RESEARCH (passive)<br>Fixed<br>Mobile except aeronautical mobile<br>5.149 5.546 | 31.5-31.8<br>EARTH EXPLORATION-SATELLITE (passive)<br>RADIO ASTRONOMY<br>SPACE RESEARCH (passive)<br>5.340 | 31.5-31.8<br>EARTH EXPLORATION-SATELLITE (passive)<br>RADIO ASTRONOMY<br>SPACE RESEARCH (passive)<br>Fixed<br>Mobile except aeronautical mobile<br>5.149 | | | |
| 31.8-32<br>FIXED 5.547A<br>RADIONAVIGATION<br>SPACE RESEARCH (deep space) (space-to-Earth)<br>5.547 5.547B 5.548 | | | 31.8-32.3<br>RADIONAVIGATION US69<br>SPACE RESEARCH (deep space) (space-to-Earth) US262<br>5.548 US211 | 31.8-32.3<br>SPACE RESEARCH (deep space) (space-to-Earth) US262<br>5.548 US211 | |
| 32-32.3<br>FIXED 5.547A<br>RADIONAVIGATION<br>SPACE RESEARCH (deep space) (space-to-Earth)<br>5.547 5.547C 5.548 | | | | | |
| 32.3-33<br>FIXED 5.547A<br>INTER-SATELLITE<br>RADIONAVIGATION<br>5.547 5.547D 5.548 | | | 32.3-33<br>INTER-SATELLITE US278<br>RADIONAVIGATION US69<br>5.548 | | Aviation (87) |
| 33-33.4<br>FIXED 5.547A<br>RADIONAVIGATION<br>5.547 5.547E | | | 33-33.4<br>RADIONAVIGATION US69<br>US360 G117 | | |

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| 34.2-34.7<br>RADIOLOCATION<br>SPACE RESEARCH (deep space) (Earth-to-space)<br>5.549 | 34.2-34.7<br>RADIOLOCATION<br>SPACE RESEARCH (deep space) (Earth-to-space) US262<br>US360 G34 G117 | 34.2-34.7<br>Radiolocation<br>Space research (deep space) (Earth-to-space) US262<br>US360 | |
| 34.7-35.2<br>RADIOLOCATION<br>Space research 5.550<br>5.549 | 34.7-35.5<br>RADIOLOCATION | 34.7-35.5<br>Radiolocation | |
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| 35.5-36<br>METEOROLOGICAL AIDS<br>EARTH EXPLORATION-SATELLITE (active)<br>RADIOLOCATION<br>SPACE RESEARCH (active)<br>5.549 5.549A | 35.5-36<br>EARTH EXPLORATION-SATELLITE (active)<br>RADIOLOCATION<br>SPACE RESEARCH (active)<br>US360 G117 | 35.5-36<br>Earth exploration-satellite (active)<br>Radiolocation<br>Space research (active)<br>US360 | |
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| 37.5-38<br>FIXED<br>FIXED-SATELLITE (space-to-Earth)<br>MOBILE<br>SPACE RESEARCH (space-to-Earth)<br>Earth exploration-satellite (space-to-Earth)<br>5.547 | | 37.5-38.6<br>FIXED<br>FIXED-SATELLITE (space-to-Earth)<br>MOBILE | Satellite Communications (25) |
| 38-39.5<br>FIXED<br>FIXED-SATELLITE (space-to-Earth)<br>MOBILE<br>Earth exploration-satellite (space-to-Earth)<br>5.547 | 38-38.6<br>FIXED<br>MOBILE<br>38.6-39.5 | 38.6-39.5<br>FIXED<br>FIXED-SATELLITE (space-to-Earth)<br>MOBILE NG175 | Satellite Communications (25)<br>Fixed Microwave (101) |

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| 43.5-47<br>MOBILE 5.553<br>MOBILE-SATELLITE<br>RADIONAVIGATION<br>RADIONAVIGATION-SATELLITE<br><br>5.554 | | 43.5-45.5<br>FIXED-SATELLITE (Earth-to-space)<br>MOBILE-SATELLITE (Earth-to-space)<br><br>G117 | 43.5-45.5 | |
| | | 45.5-46.9<br>MOBILE<br>MOBILE-SATELLITE (Earth-to-space)<br>RADIONAVIGATION-SATELLITE<br><br>5.554 | | RF Devices (15) |
| | | 46.9-47<br>MOBILE<br>MOBILE-SATELLITE (Earth-to-space)<br>RADIONAVIGATION-SATELLITE<br><br>5.554 | 46.9-47<br>FIXED<br>MOBILE<br>MOBILE-SATELLITE (Earth-to-space)<br>RADIONAVIGATION-SATELLITE<br><br>5.554 | |
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| 47.5-47.9<br>FIXED<br>FIXED-SATELLITE (Earth-to-space) 5.552 (space-to-Earth) 5.516B 5.554A<br>MOBILE | 47.5-47.9<br>FIXED<br>FIXED-SATELLITE (Earth-to-space) 5.552<br>MOBILE | | | |
| 47.9-48.2<br>FIXED<br>FIXED-SATELLITE (Earth-to-space) 5.552<br>MOBILE<br><br>5.552A | | | | |
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| 50.4-51.4<br>FIXED<br>FIXED-SATELLITE (Earth-to-space)<br>MOBILE<br>Mobile-satellite (Earth-to-space) | | | 50.4-51.4<br>FIXED<br>FIXED-SATELLITE (Earth-to-space)<br>MOBILE<br>MOBILE-SATELLITE (Earth-to-space)<br><br>G117 | 50.4-51.4<br>FIXED<br>FIXED-SATELLITE (Earth-to-space)<br>MOBILE<br>MOBILE-SATELLITE (Earth-to-space) | |
| 51.4-52.6<br>FIXED<br>MOBILE<br><br>5.547 5.556 | | | 51.4-52.6<br>FIXED<br>MOBILE | | |
| 52.6-54.25<br>EARTH EXPLORATION-SATELLITE (passive)<br>SPACE RESEARCH (passive)<br><br>5.340 5.556 | | | 52.6-54.25<br>EARTH EXPLORATION-SATELLITE (passive)<br>SPACE RESEARCH (passive)<br><br>US246 | | |
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| 55.78-56.9<br>EARTH EXPLORATION-SATELLITE (passive)<br>FIXED 5.557A<br>INTER-SATELLITE 5.556A<br>MOBILE 5.558<br>SPACE RESEARCH (passive)<br><br>5.547 5.557 | | | 55.78-56.9<br>EARTH EXPLORATION-SATELLITE (passive)<br>FIXED US379<br>INTER-SATELLITE 5.556A<br>MOBILE 5.558<br>SPACE RESEARCH (passive)<br><br>US263 US353 | | |
| 56.9-57<br>EARTH EXPLORATION-SATELLITE (passive)<br>FIXED<br>INTER-SATELLITE 5.558A<br>MOBILE 5.558<br>SPACE RESEARCH (passive)<br><br>5.547 5.557 | | | 56.9-57<br>EARTH EXPLORATION-SATELLITE (passive)<br>FIXED<br>INTER-SATELLITE G128<br>MOBILE 5.558<br>SPACE RESEARCH (passive)<br><br>US263 | 56.9-57<br>EARTH EXPLORATION-SATELLITE (passive)<br>FIXED<br>MOBILE 5.558<br>SPACE RESEARCH (passive)<br><br>US263 | |

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| 57-58.2<br>EARTH EXPLORATION-SATELLITE (passive)<br>FIXED<br>INTER-SATELLITE 5.556A<br>MOBILE 5.558<br>SPACE RESEARCH (passive)<br>5.547 5.557 | 57-58.2<br>EARTH EXPLORATION-SATELLITE (passive)<br>FIXED<br>INTER-SATELLITE 5.556A<br>MOBILE 5.558<br>SPACE RESEARCH (passive)<br>US263 | | RF Devices (15) |
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| 59-59.3<br>EARTH EXPLORATION-SATELLITE (passive)<br>FIXED<br>INTER-SATELLITE 5.556A<br>MOBILE 5.558<br>RADIOLOCATION 5.559<br>SPACE RESEARCH (passive) | 59-59.3<br>EARTH EXPLORATION-SATELLITE (passive)<br>FIXED<br>INTER-SATELLITE 5.556A<br>MOBILE 5.558<br>RADIOLOCATION 5.559<br>SPACE RESEARCH (passive)<br>US353 | 59-59.3<br>EARTH EXPLORATION-SATELLITE (passive)<br>FIXED<br>MOBILE 5.558<br>RADIOLOCATION 5.559<br>SPACE RESEARCH (passive)<br>US353 | |
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| 65-66<br>EARTH EXPLORATION-SATELLITE<br>FIXED<br>INTER-SATELLITE<br>MOBILE except aeronautical mobile<br>SPACE RESEARCH<br>5.547 | 65-66<br>EARTH EXPLORATION-SATELLITE<br>FIXED<br>MOBILE except aeronautical mobile<br>SPACE RESEARCH | 65-66<br>EARTH EXPLORATION-SATELLITE<br>FIXED<br>INTER-SATELLITE<br>MOBILE except aeronautical mobile<br>SPACE RESEARCH | |
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| 77.5-78<br>AMATEUR<br>AMATEUR-SATELLITE<br>Radio astronomy<br>Space research (space-to-Earth)<br>5.149 | | | 77.5-78<br>Radio astronomy<br>Space research (space-to-Earth)<br>US342 | 77.5-78<br>AMATEUR<br>AMATEUR-SATELLITE<br>Radio astronomy<br>Space research (space-to-Earth)<br>US342 | |
| 78-79<br>RADIOLOCATION<br>Amateur<br>Amateur-satellite<br>Radio astronomy<br>Space research (space-to-Earth)<br>5.149 5.560 | | | 78-79<br>RADIO ASTRONOMY<br>RADIOLOCATION<br>Space research (space-to-Earth)<br>5.560 US342 | 78-79<br>RADIO ASTRONOMY<br>RADIOLOCATION<br>Amateur<br>Amateur-satellite<br>Space research (space-to-Earth)<br>5.560 US342 | |
| 79-81<br>RADIO ASTRONOMY<br>RADIOLOCATION<br>Amateur<br>Amateur-satellite<br>Space research (space-to-Earth)<br>5.149 | | | 79-81<br>RADIO ASTRONOMY<br>RADIOLOCATION<br>Space research (space-to-Earth)<br>US342 | 79-81<br>RADIO ASTRONOMY<br>RADIOLOCATION<br>Amateur<br>Amateur-satellite<br>Space research (space-to-Earth)<br>US342 | |

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|---|---|---|---|
| 81-84<br>FIXED<br>FIXED-SATELLITE (Earth-to-space)<br>MOBILE<br>MOBILE-SATELLITE (Earth-to-space)<br>RADIO ASTRONOMY<br>Space research (space-to-Earth)<br>5.149 5.561A | 81-84<br>FIXED<br>FIXED-SATELLITE (Earth-to-space) US297<br>MOBILE<br>MOBILE-SATELLITE (Earth-to-space)<br>RADIO ASTRONOMY<br>Space research (space-to-Earth)<br>US342 US388 US389 | | Fixed Microwave (101) |
| 84-86<br>FIXED<br>FIXED-SATELLITE (Earth-to-space) 5.561B<br>MOBILE<br>RADIO ASTRONOMY<br>5.149 | 84-86<br>FIXED<br>FIXED-SATELLITE (Earth-to-space)<br>MOBILE<br>RADIO ASTRONOMY<br>US342 US388 US389 | | |
| 86-92<br>EARTH EXPLORATION-SATELLITE (passive)<br>RADIO ASTRONOMY<br>SPACE RESEARCH (passive)<br>5.340 | 86-92<br>EARTH EXPLORATION-SATELLITE (passive)<br>RADIO ASTRONOMY US74<br>SPACE RESEARCH (passive)<br>US246 | | |
| 92-94<br>FIXED<br>MOBILE<br>RADIO ASTRONOMY<br>RADIOLOCATION<br>5.149 | 92-94<br>FIXED<br>MOBILE<br>RADIO ASTRONOMY<br>RADIOLOCATION<br>US342 US388 | | RF Devices (15)<br>Fixed Microwave (101) |
| 94-94.1<br>EARTH EXPLORATION-SATELLITE (active)<br>RADIOLOCATION<br>SPACE RESEARCH (active)<br>Radio astronomy<br>5.562 5.562A | 94-94.1<br>EARTH EXPLORATION-SATELLITE (active)<br>RADIOLOCATION<br>SPACE RESEARCH (active)<br>Radio astronomy<br>5.562 5.562A | 94-94.1<br>RADIOLOCATION<br>Radio astronomy<br>5.562A | RF Devices (15) |
| 94.1-95<br>FIXED<br>MOBILE<br>RADIO ASTRONOMY<br>RADIOLOCATION<br>5.149 | 94.1-95<br>FIXED<br>MOBILE<br>RADIO ASTRONOMY<br>RADIOLOCATION<br>US342 US388 | | RF Devices (15)<br>Fixed Microwave (101) |
| 95-100<br>FIXED<br>MOBILE<br>RADIO ASTRONOMY<br>RADIOLOCATION<br>RADIONAVIGATION<br>RADIONAVIGATION-SATELLITE<br>5.149 5.554 | 95-100<br>FIXED<br>MOBILE<br>RADIO ASTRONOMY<br>RADIOLOCATION<br>RADIONAVIGATION<br>RADIONAVIGATION-SATELLITE<br>5.554 US342 | | |

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| 100-102<br>EARTH EXPLORATION-SATELLITE (passive)<br>RADIO ASTRONOMY<br>SPACE RESEARCH (passive)<br>5.340 5.341 | | | 100-102<br>EARTH EXPLORATION-SATELLITE (passive)<br>RADIO ASTRONOMY US74<br>SPACE RESEARCH (passive)<br>5.341 US246 | | |
| 102-105<br>FIXED<br>MOBILE<br>RADIO ASTRONOMY<br>5.149 5.341 | | | 102-105<br>FIXED<br>MOBILE<br>RADIO ASTRONOMY<br>5.341 US342 | | |
| 105-109.5<br>FIXED<br>MOBILE<br>RADIO ASTRONOMY<br>SPACE RESEARCH (passive) 5.562B<br>5.149 5.341 | | | 105-109.5<br>FIXED<br>MOBILE<br>RADIO ASTRONOMY<br>SPACE RESEARCH (passive) 5.562B<br>5.341 US342 | | |
| 109.5-111.8<br>EARTH EXPLORATION-SATELLITE (passive)<br>RADIO ASTRONOMY<br>SPACE RESEARCH (passive)<br>5.340 5.341 | | | 109.5-111.8<br>EARTH EXPLORATION-SATELLITE (passive)<br>RADIO ASTRONOMY US74<br>SPACE RESEARCH (passive)<br>5.341 US246 | | |
| 111.8-114.25<br>FIXED<br>MOBILE<br>RADIO ASTRONOMY<br>SPACE RESEARCH (passive) 5.562B<br>5.149 5.341 | | | 111.8-114.25<br>FIXED<br>MOBILE<br>RADIO ASTRONOMY<br>SPACE RESEARCH (passive) 5.562B<br>5.341 US342 | | |
| 114.25-116<br>EARTH EXPLORATION-SATELLITE (passive)<br>RADIO ASTRONOMY<br>SPACE RESEARCH (passive)<br>5.340 5.341 | | | 114.25-116<br>EARTH EXPLORATION-SATELLITE (passive)<br>RADIO ASTRONOMY US74<br>SPACE RESEARCH (passive)<br>5.341 US246 | | |
| 116-119.98<br>EARTH EXPLORATION-SATELLITE (passive)<br>INTER-SATELLITE 5.562C<br>SPACE RESEARCH (passive)<br>5.341 | | | 116-122.25<br>EARTH EXPLORATION-SATELLITE (passive)<br>INTER-SATELLITE 5.562C<br>SPACE RESEARCH (passive) | | ISM Equipment (18) |
| 119.98-122.25<br>EARTH EXPLORATION-SATELLITE (passive)<br>INTER-SATELLITE 5.562C<br>SPACE RESEARCH (passive)<br>5.138 5.341 | | | 5.138 5.341 US211 | | |

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|---|---|---|---|
| 122.25-123<br>FIXED<br>INTER-SATELLITE<br>MOBILE 5.558<br>Amateur<br>5.138 | 122.25-123<br>FIXED<br>INTER-SATELLITE<br>MOBILE 5.558<br>5.138 | 122.25-123<br>FIXED<br>INTER-SATELLITE<br>MOBILE 5.558<br>Amateur<br>5.138 | ISM Equipment (18)<br>Amateur (97) |
| 123-130<br>FIXED-SATELLITE (space-to-Earth)<br>MOBILE-SATELLITE (space-to-Earth)<br>RADIONAVIGATION<br>RADIONAVIGATION-SATELLITE<br>Radio astronomy 5.562D<br>5.149 5.554 | 123-130<br>FIXED-SATELLITE (space-to-Earth)<br>MOBILE-SATELLITE (space-to-Earth)<br>RADIONAVIGATION<br>RADIONAVIGATION-SATELLITE<br>Radio astronomy<br>5.554 US211 US342 | | |
| 130-134<br>EARTH EXPLORATION-SATELLITE (active) 5.562E<br>FIXED<br>INTER-SATELLITE<br>MOBILE 5.558<br>RADIO ASTRONOMY<br>5.149 5.562A | 130-134<br>EARTH EXPLORATION-SATELLITE (active) 5.562E<br>FIXED<br>INTER-SATELLITE<br>MOBILE 5.558<br>RADIO ASTRONOMY<br>5.562A US342 | | |
| 134-136<br>AMATEUR<br>AMATEUR-SATELLITE<br>Radio astronomy | 134-136<br>Radio astronomy | 134-136<br>AMATEUR<br>AMATEUR-SATELLITE<br>Radio astronomy | Amateur (97) |
| 136-141<br>RADIO ASTRONOMY<br>RADIOLOCATION<br>Amateur<br>Amateur-satellite<br>5.149 | 136-141<br>RADIO ASTRONOMY<br>RADIOLOCATION<br>US342 | 136-141<br>RADIO ASTRONOMY<br>RADIOLOCATION<br>Amateur<br>Amateur-satellite<br>US342 | |
| 141-148.5<br>FIXED<br>MOBILE<br>RADIO ASTRONOMY<br>RADIOLOCATION<br>5.149 | 141-148.5<br>FIXED<br>MOBILE<br>RADIO ASTRONOMY<br>RADIOLOCATION<br>US342 | | |
| 148.5-151.5<br>EARTH EXPLORATION-SATELLITE (passive)<br>RADIO ASTRONOMY<br>SPACE RESEARCH (passive)<br>5.340 | 148.5-151.5<br>EARTH EXPLORATION-SATELLITE (passive)<br>RADIO ASTRONOMY US74<br>SPACE RESEARCH (passive)<br>US246 | | |
| 151.5-155.5<br>FIXED<br>MOBILE<br>RADIO ASTRONOMY<br>RADIOLOCATION<br>5.149 | 151.5-155.5<br>FIXED<br>MOBILE<br>RADIO ASTRONOMY<br>RADIOLOCATION<br>US342 | | |

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| 155.5-158.5<br>EARTH EXPLORATION-SATELLITE (passive) 5.562F<br>FIXED<br>MOBILE<br>RADIO ASTRONOMY<br>SPACE RESEARCH (passive) 5.562B<br>5.149 5.562G | | | 155.5-158.5<br>EARTH EXPLORATION-SATELLITE (passive) 5.562F<br>FIXED<br>MOBILE<br>RADIO ASTRONOMY<br>SPACE RESEARCH (passive) 5.562B<br>5.562G US342 | | |
| 158.5-164<br>FIXED<br>FIXED-SATELLITE (space-to-Earth)<br>MOBILE<br>MOBILE-SATELLITE (space-to-Earth) | | | 158.5-164<br>FIXED<br>FIXED-SATELLITE (space-to-Earth)<br>MOBILE<br>MOBILE-SATELLITE (space-to-Earth)<br>US211 | | |
| 164-167<br>EARTH EXPLORATION-SATELLITE (passive)<br>RADIO ASTRONOMY<br>SPACE RESEARCH (passive)<br>5.340 | | | 164-167<br>EARTH EXPLORATION-SATELLITE (passive)<br>RADIO ASTRONOMY US74<br>SPACE RESEARCH (passive)<br>US246 | | |
| 167-174.5<br>FIXED<br>FIXED-SATELLITE (space-to-Earth)<br>INTER-SATELLITE<br>MOBILE 5.558<br>5.149 5.562D | | | 167-174.5<br>FIXED<br>FIXED-SATELLITE (space-to-Earth)<br>INTER-SATELLITE<br>MOBILE 5.558<br>US211 US342 | | |
| 174.5-174.8<br>FIXED<br>INTER-SATELLITE<br>MOBILE 5.558 | | | 174.5-174.8<br>FIXED<br>INTER-SATELLITE<br>MOBILE 5.558 | | |
| 174.8-182<br>EARTH EXPLORATION-SATELLITE (passive)<br>INTER-SATELLITE 5.562H<br>SPACE RESEARCH (passive) | | | 174.8-182<br>EARTH EXPLORATION-SATELLITE (passive)<br>INTER-SATELLITE 5.562H<br>SPACE RESEARCH (passive) | | |
| 182-185<br>EARTH EXPLORATION-SATELLITE (passive)<br>RADIO ASTRONOMY<br>SPACE RESEARCH (passive)<br>5.340 | | | 182-185<br>EARTH EXPLORATION-SATELLITE (passive)<br>RADIO ASTRONOMY<br>SPACE RESEARCH (passive)<br>US246 | | |
| 185-190<br>EARTH EXPLORATION-SATELLITE (passive)<br>INTER-SATELLITE 5.562H<br>SPACE RESEARCH (passive) | | | 185-190<br>EARTH EXPLORATION-SATELLITE (passive)<br>INTER-SATELLITE 5.562H<br>SPACE RESEARCH (passive) | | |
| 190-191.8<br>EARTH EXPLORATION-SATELLITE (passive)<br>SPACE RESEARCH (passive)<br>5.340 | | | 190-191.8<br>EARTH EXPLORATION-SATELLITE (passive)<br>SPACE RESEARCH (passive)<br>US246 | | |

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| 191.8-200<br>FIXED<br>INTER-SATELLITE<br>MOBILE 5.558<br>MOBILE-SATELLITE<br>RADIONAVIGATION<br>RADIONAVIGATION-SATELLITE<br><br>5.149 5.341 5.554 | 191.8-200<br>FIXED<br>INTER-SATELLITE<br>MOBILE 5.558<br>MOBILE-SATELLITE<br>RADIONAVIGATION<br>RADIONAVIGATION-SATELLITE<br><br>5.341 5.554 US211 US342 | |
| 200-209<br>EARTH EXPLORATION-SATELLITE (passive)<br>RADIO ASTRONOMY<br>SPACE RESEARCH (passive)<br><br>5.340 5.341 5.563A | 200-209<br>EARTH EXPLORATION-SATELLITE (passive)<br>RADIO ASTRONOMY US74<br>SPACE RESEARCH (passive)<br><br>5.341 5.563A US246 | |
| 209-217<br>FIXED<br>FIXED-SATELLITE (Earth-to-space)<br>MOBILE<br>RADIO ASTRONOMY<br><br>5.149 5.341 | 209-217<br>FIXED<br>FIXED-SATELLITE (Earth-to-space)<br>MOBILE<br>RADIO ASTRONOMY<br><br>5.341 US342 | |
| 217-226<br>FIXED<br>FIXED-SATELLITE (Earth-to-space)<br>MOBILE<br>RADIO ASTRONOMY<br>SPACE RESEARCH (passive) 5.562B<br><br>5.149 5.341 | 217-226<br>FIXED<br>FIXED-SATELLITE (Earth-to-space)<br>MOBILE<br>RADIO ASTRONOMY<br>SPACE RESEARCH (passive) 5.562B<br><br>5.341 US342 | |
| 226-231.5<br>EARTH EXPLORATION-SATELLITE (passive)<br>RADIO ASTRONOMY<br>SPACE RESEARCH (passive)<br><br>5.340 | 226-231.5<br>EARTH EXPLORATION-SATELLITE (passive)<br>RADIO ASTRONOMY<br>SPACE RESEARCH (passive)<br><br>US246 | |
| 231.5-232<br>FIXED<br>MOBILE<br>Radiolocation | 231.5-232<br>FIXED<br>MOBILE<br>Radiolocation | |
| 232-235<br>FIXED<br>FIXED-SATELLITE (space-to-Earth)<br>MOBILE<br>Radiolocation | 232-235<br>FIXED<br>FIXED-SATELLITE (space-to-Earth)<br>MOBILE<br>Radiolocation | |
| 235-238<br>EARTH EXPLORATION-SATELLITE (passive)<br>FIXED-SATELLITE (space-to-Earth)<br>SPACE RESEARCH (passive)<br><br>5.563A 5.563B | 235-238<br>EARTH EXPLORATION-SATELLITE (passive)<br>FIXED-SATELLITE (space-to-Earth)<br>SPACE RESEARCH (passive)<br><br>5.563A 5.563B | |

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| 238-240<br>FIXED<br>FIXED-SATELLITE (space-to-Earth)<br>MOBILE<br>RADIOLOCATION<br>RADIONAVIGATION<br>RADIONAVIGATION-SATELLITE | | | 238-240<br>FIXED<br>FIXED-SATELLITE (space-to-Earth)<br>MOBILE<br>RADIOLOCATION<br>RADIONAVIGATION<br>RADIONAVIGATION-SATELLITE | | |
| 240-241<br>FIXED<br>MOBILE<br>RADIOLOCATION | | | 240-241<br>FIXED<br>MOBILE<br>RADIOLOCATION | | |
| 241-248<br>RADIO ASTRONOMY<br>RADIOLOCATION<br>Amateur<br>Amateur-satellite<br>5.138 5.149 | | | 241-248<br>RADIO ASTRONOMY<br>RADIOLOCATION<br>5.138 US342 | 241-248<br>RADIO ASTRONOMY<br>RADIOLOCATION<br>Amateur<br>Amateur-satellite<br>5.138 US342 | ISM Equipment (18)<br>Amateur (97) |
| 248-250<br>AMATEUR<br>AMATEUR-SATELLITE<br>Radio astronomy<br>5.149 | | | 248-250<br>Radio astronomy<br>US342 | 248-250<br>AMATEUR<br>AMATEUR-SATELLITE<br>Radio astronomy<br>US342 | Amateur (97) |
| 250-252<br>EARTH EXPLORATION-SATELLITE (passive)<br>RADIO ASTRONOMY<br>SPACE RESEARCH (passive)<br>5.340 5.563A | | | 250-252<br>EARTH EXPLORATION-SATELLITE (passive)<br>RADIO ASTRONOMY US74<br>SPACE RESEARCH (passive)<br>5.563A US246 | | |
| 252-265<br>FIXED<br>MOBILE<br>MOBILE-SATELLITE (Earth-to-space)<br>RADIO ASTRONOMY<br>RADIONAVIGATION<br>RADIONAVIGATION-SATELLITE<br>5.149 5.554 | | | 252-265<br>FIXED<br>MOBILE<br>MOBILE-SATELLITE (Earth-to-space)<br>RADIO ASTRONOMY<br>RADIONAVIGATION<br>RADIONAVIGATION-SATELLITE<br>5.554 US211 US342 | | |
| 265-275<br>FIXED<br>FIXED-SATELLITE (Earth-to-space)<br>MOBILE<br>RADIO ASTRONOMY<br>5.149 5.563A | | | 265-275<br>FIXED<br>FIXED-SATELLITE (Earth-to-space)<br>MOBILE<br>RADIO ASTRONOMY<br>5.563A US342 | | |
| 275-1000<br>(Not allocated)<br>5.565 | | | 275-1000<br>(Not allocated)<br>5.565 | | Amateur (97) |

**International Footnotes**

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5.155 *Additional allocation:* in Armenia, Azerbaijan, Belarus, Bulgaria, the Russian

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Federation, Georgia, Kazakhstan, Moldova, Mongolia, Uzbekistan, Kyrgyzstan, Slovakia, the Czech Rep., Tajikistan, Turkmenistan and Ukraine, the band 21850–21870 kHz is also allocated to the aeronautical mobile (R) service on a primary basis.

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5.237 *Additional allocation:* in Congo (Rep. of the), Eritrea, Ethiopia, Gambia, Guinea, the Libyan Arab Jamahiriya, Malawi, Mali, Sierra Leone, Somalia, Chad and Zimbabwe, the band 174–223 MHz is also allocated to the fixed and mobile services on a secondary basis.

* * * * *

5.339 The bands 1370–1400 MHz, 2640–2655 MHz, 4950–4990 MHz and 15.20–15.35 GHz are also allocated to the space research (passive) and Earth exploration-satellite (passive) services on a secondary basis.

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5.438 Use of the band 4200–4400 MHz by the aeronautical radionavigation service is reserved exclusively for radio altimeters installed on board aircraft and for the associated transponders on the ground. However, passive sensing in the Earth exploration-satellite and space research services may be authorized in this band on a secondary basis (no protection is provided by the radio altimeters).

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5.462A In Regions 1 and 3 (except for Japan), in the band 8025–8400 MHz, the Earth exploration-satellite service using geostationary satellites shall not produce a power flux-density in excess of the following provisional values for angles of arrival ($\theta$), without the consent of the affected administration:

$-174$ dB(W/m$^2$) in a 4 kHz band for $0° \leq \theta < 5°$

$-174 + 0.5\ (-5)$ dB(W/m$_2$) in a 4 kHz band for $5° \leq \theta < 25°$

$-164$ dB(W/m$_2$) in a 4 kHz band for $25° \leq \theta \leq 90°$

These values are subject to study under Resolution 124 (WRC–97).[6]

* * * * *

5.469A In the band 8550–8650 MHz, stations in the Earth exploration-satellite service (active) and space research service (active) shall not cause harmful interference to, or constrain the use and development of, stations of the radiolocation service.

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5.476A In the band 9500–9800 MHz, stations in the Earth exploration-satellite service (active) and space research service (active) shall not cause harmful interference to, or constrain the use and development of, stations of the radionavigation and radiolocation services.

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**United States (US) Footnotes**

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US1 The bands 2501–2502 kHz, 5003–5005 kHz, 10003–10005 kHz, 15005–15010 kHz, 19990–19995 kHz, 20005–20010 kHz, and 25005–25010 kHz are also allocated to the space research service on a secondary basis for Federal use. In the event of interference to the reception of the standard frequency and time broadcasts, these space research transmissions are subject to immediate temporary or permanent shutdown.

US7 In the band 420–450 MHz and within the following areas, the peak envelope power output of a transmitter employed in the amateur service shall not exceed 50 watts, unless expressly authorized by the FCC after mutual agreement, on a case-by-case basis, between the District Director of the applicable field office and the military area frequency coordinator at the applicable military base. For areas (e) through (g), the appropriate military coordinator is located at Peterson AFB, CO.

(a) Arizona, Florida, and New Mexico.

(b) Those portions of California and Nevada that are south of latitude 37°10′ N.

(c) That portion of Texas that is west of longitude 104° W.

(d) Within 322 km (200 miles) of Eglin AFB, FL (30°30′ N, 86°30′ W); Patrick AFB, FL (28°21′ N, 80°43′ W); and the Pacific Missile Test Center, Point Mugu, CA (34°09′ N, 119°11′ W).

(e) Within 240 km (150 miles) of Beale AFB, CA (39°08′ N, 121°26′ W).

(f) Within 200 km (124 miles) of Goodfellow AFB, TX (31°25′ N, 100°24′ W) and Robins AFB, GA (32°38′ N, 83°35′ W).

(g) Within 160 km (100 miles) of Clear, AK (64°17′ N, 149°10′ W); Concrete, ND (48°43′ N, 97°54′ W); and Otis AFB, MA (41°45′ N, 70°32′ W).

* * * * *

US11 On the condition that harmful interference is not caused to present or future Federal stations in the band 162–174 MHz, the frequencies 166.25 MHz and 170.15 MHz may be authorized to non-Federal stations, as follows:

(a) Eligibles in the Public Safety Radio Pool may be authorized to operate in the fixed and land mobile services for locations within 150 miles (241.4 kilometers) of New York City; and

(b) Remote pickup broadcast stations may be authorized to operate in the land mobile service for locations within the conterminous United States, excluding locations within 150 miles of New York City and the Tennessee Valley Authority Area (TVA Area). The TVA Area is bounded on the west by the Mississippi River, on the north by the parallel of latitude 37°30′ N, and on the east and south by that arc of the circle with center at Springfield, IL, and radius equal to the airline distance between Springfield, IL, and Montgomery, AL, subtended between the foregoing west and north boundaries.

* * * * *

US81 The band 38–38.25 MHz is used by both Federal and non-Federal radio astronomy observatories. No new fixed or mobile assignments are to be made and Federal stations in the band 38–38.25 MHz will be moved to other bands on a case-by-case basis, as required, to protect radio astronomy observations from harmful interference. As an exception, however, low powered military transportable and mobile stations used for tactical and training purposes will continue to use the band. To the extent practicable, the latter operations will be adjusted to relieve such interference as may be caused to radio astronomy observations. In the event of harmful interference from such local operations, radio astronomy observatories may contact local military commands directly, with a view to effecting relief. A list of military commands, areas of coordination, and points of contact for purposes of relieving interference may be obtained upon request from the Office of Engineering and Technology, FCC, Washington, DC 20554.

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US90 In the band 2025–2110 MHz, the power flux-density at the Earth's surface produced by emissions from a space station in the space operation, Earth exploration-satellite, or space research service that is transmitting in the space-to-space direction, for all conditions and all methods of modulation, shall not exceed the following values in any 4 kHz sub-band:

(a) $-154$ dBW/m$^2$ for angles of arrival above the horizontal plane ($\delta$) of 0° to 5°,

(b) $-154 + 0.5(\delta - 5)$ dBW/m$^2$ for $\delta$ of 5° to 25°, and

(c) $-144$ dBW/m$^2$ for $\delta$ of 25° to 90°.

US93 In the conterminous United States, the frequency 108.0 MHz may be authorized for use by VOR test facilities, the operation of which is not essential for the safety of life or property, subject to the condition that no interference is caused to the reception of FM broadcasting stations operating in the band 88–108 MHz. In the event that such interference does occur, the licensee or other agency authorized to operate the facility shall discontinue operation on 108 MHz and shall not resume operation until the interference has been eliminated or the complaint otherwise satisfied. VOR test facilities operating on 108 MHz will not be protected against interference caused by FM broadcasting stations operating in the band 88–108 MHz nor shall the authorization of a VOR test facility on 108 MHz preclude the Commission from authorizing additional FM broadcasting stations.

US99 In the band 1668.4–1670 MHz, the meteorological aids service (radiosonde) will avoid operations to the maximum extent practicable. Whenever it is necessary to operate radiosondes in the band 1668.4–1670 MHz within the United States, notification of the operations shall be sent as far in advance as possible to the Electromagnetic Management Unit, Room 1030, National Science Foundation, 4201 Wilson Blvd., Arlington, VA 22230.

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US116 In the bands 890–902 MHz and 935–941 MHz, no new assignments are to be made to Federal radio stations after July 10, 1970, except on a case-by-case basis to experimental stations. Federal assignments existing prior to July 10, 1970, shall be on a secondary basis to stations in the non-Federal land mobile service and shall be subject to adjustment or removal from the bands 890–902 MHz, 928–932 MHz, and 935–941 MHz at the request of the FCC.

US117 In the band 406.1–410 MHz, the following provisions shall apply:

[6] *Note by the Secretariat:* This Resolution was revised by WRC–2000.

(a) Stations in the fixed and mobile services are limited to a transmitter output power of 125 watts, and new authorizations for stations, other than mobile stations, are subject to prior coordination by the applicant in the following areas:

(1) Within Puerto Rico and the United States Virgin Islands, contact Spectrum Manager, Arecibo Observatory, HC3 Box 53995, Arecibo, PR 00612. Phone: 787–878–2612, Fax: 787–878–1861, E-mail: *prcz@naic.edu*.

(2) Within 350 km of the Very Large Array (34°04′44″ N, 107°37′06″ W), contact Spectrum Manager, National Radio Astronomy Observatory, P.O. Box O, 1003 Lopezville Road, Socorro, NM 87801. Phone: 505–835–7000, Fax: 505–835–7027, E-mail: *nrao-rfi@nrao.edu*.

(3) Within 10 km of the Table Mountain Observatory (40°07′50″ N, 105°14′40″ W) and for operations only within the sub-band 407–409 MHz, contact Radio Frequency Coordinator, Department of Commerce, 325 Broadway, Boulder, CO 80303. Phone: 303–497–6548, Fax: 303–497–3384.

(b) Non-Federal use is limited to the radio astronomy service and as provided by US13.

US201 In the band 460–470 MHz, space stations in the Earth exploration-satellite service may be authorized for space-to-Earth transmissions on a secondary basis with respect to the fixed and mobile services. When operating in the meteorological-satellite service, such stations shall be protected from harmful interference from other applications of the Earth exploration-satellite service. The power flux-density produced at the Earth's surface by any space station in this band shall not exceed −152 dBW/m²/4 kHz.

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US216 The frequencies 150.775 MHz, 150.790 MHz, 152.0075 MHz, and 163.250 MHz, and the bands 462.94688–463.19688 MHz and 467.94688–468.19688 shall be authorized for the purpose of delivering or rendering medical services to individuals (medical radiocommunication systems), and shall be authorized on a primary basis for Federal and non-Federal use. The frequency 152.0075 MHz may also be used for the purpose of conducting public safety radio communications that include, but are not limited to, the delivering or rendering of medical services to individuals.

(a) The use of the frequencies 150.775 MHz and 150.790 MHz is limited to mobile stations operating with a maximum e.r.p. of 100 watts. Airborne operations are prohibited.

(b) The use of the frequencies 152.0075 MHz and 163.250 MHz is limited to base stations that are authorized only for one-way paging communications to mobile receivers. Transmissions for the purpose of activating or controlling remote objects on these frequencies shall not be authorized.

(c) Non-Federal licensees in the Public Safety Radio Pool holding a valid authorization on May 27, 2005, to operate on the frequencies 150.7825 MHz and 150.7975 MHz may, upon proper renewal application, continue to be authorized for such operation; provided that harmful interference is not caused to present or future Federal stations in the band 150.05–150.8 MHz and, should harmful interference result, that the interfering non-Federal operation shall immediately terminate.

US217 In the band 420–450 MHz, pulse-ranging radiolocation systems may be authorized for use along the shoreline of the conterminous United States and Alaska. In the sub-band 420–435 MHz, spread spectrum radiolocation systems may be authorized within the conterminous United States and Alaska. All stations operating in accordance with this provision shall be secondary to stations operating in accordance with the Table of Frequency Allocations. Authorizations shall be granted on a case-by-case basis; however, operations proposed to be located within the following geographic areas should not expect to be accommodated:

(a) Arizona, Florida, and New Mexico.

(b) Those portions of California and Nevada that are south of latitude 37°10′ N.

(c) That portion of Texas that is west of longitude 104° W.

(d) Within 322 km (200 miles) of Eglin AFB, FL (30°30′ N, 86°30′ W); Patrick AFB, FL (28°21′ N, 80°43′ W); and the Pacific Missile Test Center, Point Mugu, CA (34°09′ N, 119°11′ W).

(e) Within 240 km (150 miles) of Beale AFB, CA (39°08′ N, 121°26′ W).

(f) Within 200 km (124 miles) of Goodfellow AFB, TX (31°25′ N, 100°24′ W) and Robins AFB, GA (32°38′ N, 83°35′ W).

(g) Within 160 km (100 miles) of Clear, AK (64°17′ N, 149°10′ W); Concrete, ND (48°43′ N, 97°54′ W); and Otis AFB, MA (41°45′ N, 70°32′ W).

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US222 In the band 2025–2035 MHz, geostationary operational environmental satellite (GOES) earth stations in the space research and Earth exploration-satellite services may be authorized on a coequal basis for Earth-to-space transmissions for tracking, telemetry, and telecommand at Honolulu, HI (21°21′12″ N, 157°52′36″ W); Seattle, WA (47°34′15″ N, 122°33′10″ W); and Wallops Island, VA (37°56′44″ N, 75°27′42″ W).

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US229 Federal use of the fixed and land mobile services in the band 216–220 MHz and of the aeronautical mobile service in the sub-band 217–220 MHz shall be limited to telemetering and associated telecommand operations. NTIA shall not authorize new Federal assignments in the sub-band 216–217 MHz. The sub-band 216.88–217.08 MHz is allocated to the radiodetermination service on a primary basis for Federal use, limited to the Navy's Space Surveillance (SPASUR) radar system at the following nine sites.

(a) Three stations transmit at a very high power and other operations may be affected within the following areas:

| Transmitter sites | Coordinates | Frequency | Interference radius |
|---|---|---|---|
| Gila River (Phoenix), AZ | 33°06′32″ N, 112°01′45″ W | 216.97 MHz | 150 km (93.2 miles). |
| Lake Kickapoo (Archer City), TX | 33°32′47″ N, 98°45′46″ W | 216.983 MHz | 250 km (155.3 miles). |
| Jordan Lake (Wetumpka), AL | 32°39′33″ N, 86°15′52″ W | 216.99 MHz | 150 km. |

(b) Reception of the sub-band 216.965–216.995 MHz shall be protected from harmful interference within 50 kilometers (31.1 miles) of the following sites:

| Receive sites | Coordinates |
|---|---|
| Elephant Butte, NM | 33°26′35″ N, 106°59′50″ W |
| Fort Stewart, GA | 31°58′36″ N, 081°30′34″ W |
| Hawkinsville, GA | 32°17′20″ N, 083°32′10″ W |
| Red River, AR | 33°19′48″ N, 093°33′01″ W |
| San Diego, CA | 32°34′42″ N, 116°58′11″ W |
| Silver Lake, MS | 33°08′42″ N, 091°01′16″ W |

US230 The bands 422.1875–425.4875 MHz and 427.1875–429.9875 MHz are allocated to the land mobile service on a primary basis for non-Federal use within 80.5 kilometers (50 miles) of Cleveland, OH (41°29′51.2″ N, 81°41′49.5″ W) and Detroit, MI (42°19′48.1″ N, 83°02′56.7″ W). The bands 423.8125–425.4875 MHz and 428.8125–429.9875 MHz are allocated to the land mobile service on a primary basis for non-Federal use within 80.5 kilometers of Buffalo, NY (42°52′52.2″ N, 78°52′20.1″ W).

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US247 The band 10100–10150 kHz is allocated to the fixed service on a primary basis outside the United States and its insular areas. Transmissions from stations in the amateur service shall not cause harmful interference to this fixed service use and stations in the amateur service shall make all necessary adjustments (including termination of transmission) if harmful interference is caused.

US251 The band 12.75–13.25 GHz is also allocated to the space research (deep space) (space-to-Earth) service for reception only at Goldstone, CA (35°20′ N, 116°53′ W).

US252 The band 2110–2120 MHz is also allocated to the space research service (deep space) (Earth-to-space) on a primary basis at Goldstone, CA (35°20′ N, 116°53′ W).

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US259 In the band 17.3–17.7 GHz, Federal stations in the radiolocation service shall operate with an e.i.r.p. of less than 51 dBW.

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US262 The band 7145–7190 MHz is also allocated to the space research service (deep space) (Earth-to-space) on a secondary basis for non-Federal use. Federal and non-Federal use of the bands 7145–7190 MHz and 34.2–34.7 GHz by the space research service (deep space) (Earth-to-space) and of the band 31.8–32.3 GHz by the space research service (deep space) (space-to-Earth) is limited to Goldstone, CA (35°20′ N, 116°53′ W).

* * * * *

US265 In the band 10.6–10.68 GHz, the fixed service shall be limited to an e.i.r.p. of 40 dBW and the power delivered to the antenna shall not exceed −3 dBW per 250 kHz.

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US267 In the band 902–928 MHz, amateur stations shall transmit only in the sub-bands 902–902.4, 902.6–904.3, 904.7–925.3, 925.7–927.3, and 927.7–928 MHz within the States of Colorado and Wyoming, bounded by the area of latitudes 39° N and 42° N and longitudes 103° W and 108° W.

* * * * *

US273 In the bands 74.6–74.8 MHz and 75.2–75.4 MHz, stations in the fixed and mobile services are limited to a maximum power of 1 watt from the transmitter into the antenna transmission line.

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US285 Under exceptional circumstances, the carrier frequencies 2635 kHz, 2638 kHz, and 2738 kHz may be authorized to coast stations.

US290 In the band 1900–2000 kHz, amateur stations may continue to operate on a secondary basis to the radiolocation service, pending a decision as to their disposition through a future rule making proceeding in conjunction with the implementation of the standard broadcasting service in the band 1625–1705 kHz.

US294 In the spectrum below 490 kHz, electric utilities operate Power Line Carrier (PLC) systems on power transmission lines for communications important to the reliability and security of electric service to the public. These PLC systems operate under the provisions of 47 CFR part 15 or Chapter 7 of the *NTIA Manual,* on an unprotected and noninterference basis with respect to authorized radio users. Notification of intent to place new or revised radio frequency assignments or PLC frequency uses in the bands below 490 kHz is to be made in accordance with the Rules and Regulations of the FCC and NTIA, and users are urged to minimize potential interference to the degree practicable. This footnote does not provide any allocation status to PLC radio frequency uses.

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US299 In Alaska, the band 1615–1705 kHz is also allocated to the maritime mobile and Alaska fixed services on a secondary basis to Region 2 broadcast operations.

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US301 Except as provided in NG30, broadcast auxiliary stations licensed as of November 21, 1984, to operate in the band 942–944 MHz may continue to operate on a co-equal primary basis to other stations and services operating in the band in accordance with the Table of Frequency Allocations.

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US307 The band 5150–5216 MHz is also allocated to the fixed-satellite service (space-to-Earth) for feeder links in conjunction with the radiodetermination-satellite service operating in the bands 1610–1626.5 MHz and 2483.5–2500 MHz. The total power flux-density at the Earth's surface shall in no case exceed −159 dBW/m² per 4 kHz for all angles of arrival.

US308 In the bands 1549.5–1558.5 MHz and 1651–1660 MHz, those requirements of the aeronautical mobile-satellite (R) service that cannot be accommodated in the bands 1545–1549.5 MHz, 1558.5–1559 MHz, 1646.5–1651 MHz, and 1660–1660.5 MHz shall have priority access with real-time preemptive capability for communications in the mobile-satellite service. Systems not interoperable with the aeronautical mobile-satellite (R) service shall operate on a secondary basis. Account shall be taken of the priority of safety-related communications in the mobile-satellite service.

US309 In the bands 1545–1559 MHz, transmissions from terrestrial aeronautical stations directly to aircraft stations, or between aircraft stations, in the aeronautical mobile (R) service are also authorized when such transmissions are used to extend or supplement the satellite-to-aircraft links. In the band 1646.5–1660.5 MHz, transmissions from aircraft stations in the aeronautical mobile (R) service directly to terrestrial aeronautical stations, or between aircraft stations, are also authorized when such transmissions are used to extend or supplement the aircraft-to-satellite links.

US310 In the band 14.896–15.121 GHz, non-Federal space stations in the space research service may be authorized on a secondary basis to transmit to Tracking and Data Relay Satellites subject to such conditions as may be applied on a case-by-case basis. Such transmissions shall not cause harmful interference to authorized Federal stations. The power flux-density (pfd) produced by such non-Federal stations at the Earth's surface in any 1 MHz band for all conditions and methods of modulation shall not exceed:

$-124$ dB(W/m²) for $0° < \theta \leq 5°$

$-124 + (\theta - 5)/2$ dB(W/m²) for $5° < \theta \leq 25°$

$-114$ dB(W/m²) for $25° < \theta \leq 90°$

where θ is the angle of arrival of the radio-frequency wave (degrees above the horizontal). These limits relate to the pfd and angles of arrival which would be obtained under free-space propagation conditions.

US311 Radio astronomy observations may be made in the bands 1350–1400 MHz, 1718.8–1722.2 MHz, and 4950–4990 MHz on an unprotected basis at the following radio astronomy observatories:

| | |
|---|---|
| Allen Telescope Array, Hat Creek, CA | Rectangle between latitudes 40°00′ N and 42°00′ N and between longitudes 120°15′ W and 122°15′ W. |
| NASA Goldstone Deep Space Communications Complex, Goldstone, CA | 80 kilometers (50 mile) radius centered on 35°20′ N, 116°53′ W. |
| National Astronomy and Ionosphere Center, Arecibo, PR | Rectangle between latitudes 17°30′ N and 19°00′ N and between longitudes 65°10′ W and 68°00′ W. |
| National Radio Astronomy Observatory, Socorro, NM | Rectangle between latitudes 32°30′ N and 35°30′ N and between longitudes 106°00′ W and 109°00′ W. |
| National Radio Astronomy Observatory, Green Bank, WV | Rectangle between latitudes 37°30′ N and 39°15′ N and between longitudes 78°30′ W and 80°30′ W. |
| National Radio Astronomy Observatory, Very Long Baseline Array Stations. | 80 kilometer radius centered on: |

| | North latitude | West longitude |
|---|---|---|
| Brewster, WA | 48°08′ | 119°41′ |
| Fort Davis, TX | 30°38′ | 103°57′ |
| Hancock, NH | 42°56′ | 71°59′ |
| Kitt Peak, AZ | 31°57′ | 111°37′ |
| Los Alamos, NM | 35°47′ | 106°15′ |
| Mauna Kea, HI | 19°48′ | 155°27′ |
| North Liberty, IA | 41°46′ | 91°34′ |
| Owens Valley, CA | 37°14′ | 118°17′ |
| Pie Town, NM | 34°18′ | 108°07′ |
| Saint Croix, VI | 17°45′ | 64°35′ |

| | |
|---|---|
| Owens Valley Radio Observatory, Big Pine, CA ..... | Two contiguous rectangles, one between latitudes 36°00′ N and 37°00′ N and between longitudes 117°40′ W and 118°30′ W and the second between latitudes 37°00′ N and 38°00′ N and between longitudes 118°00′ W and 118°50′ W. |

* * * * *

US315 In the bands 1530–1544 MHz and 1626.5–1645.5 MHz, maritime mobile-satellite distress and safety communications, *e.g.*, GMDSS, shall have priority access with real-time preemptive capability in the mobile-satellite service. Communications of mobile-satellite system stations not participating in the GMDSS shall operate on a secondary basis to distress and safety communications of stations operating in the GMDSS. Account shall be taken of the priority of safety-related communications in the mobile-satellite service.

US316 The band 2900–3000 MHz is also allocated to the meteorological aids service on a primary basis for Federal use. Operations in this service are limited to Next Generation Weather Radar (NEXRAD) systems where accommodation in the band 2700–2900 MHz is not technically practical and are subject to coordination with existing authorized stations.

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US323 In the band 148–149.9 MHz, no individual mobile earth station shall transmit on the same frequency being actively used by fixed and mobile stations and shall transmit no more than 1% of the time during any 15 minute period; except, individual mobile earth stations in this band that do not avoid frequencies actively being used by the fixed and mobile services shall not exceed a power density of −16 dBW/4 kHz and shall transmit no more than 0.25% of the time during any 15 minute period. Any single transmission from any individual mobile earth station operating in this band shall not exceed 450 ms in duration and consecutive transmissions from a single mobile earth station on the same frequency shall be separated by at least 15 seconds. Land earth stations in this band shall be subject to electromagnetic compatibility analysis and coordination with terrestrial fixed and mobile stations.

US324 In the band 400.15–401 MHz, Federal and non-Federal satellite systems shall be subject to electromagnetic compatibility analysis and coordination.

* * * * *

US334 In the band 17.8–20.2 GHz, Federal space stations in both geostationary (GSO) and non-geostationary satellite orbits (NGSO) and associated earth stations in the fixed-satellite service (space-to-Earth) may be authorized on a primary basis. For a Federal geostationary satellite network to operate on a primary basis, the space station shall be located outside the arc, measured from east to west, 70° West longitude to 120° West longitude. Coordination between Federal fixed-satellite systems and non-Federal space and terrestrial systems operating in accordance with the United States Table of Frequency Allocations is required.

(a) In the sub-band 17.8–19.7 GHz, the power flux-density (pfd) at the surface of the Earth produced by emissions from a Federal GSO space station or from a Federal space station in a NGSO constellation of 50 or fewer satellites, for all conditions and for all methods of modulation, shall not exceed the following values in any 1 MHz band:

(1) $-115$ dB(W/m²) for angles of arrival above the horizontal plane (δ) between 0° and 5°,

(2) $-115 + 0.5(\delta - 5)$ dB(W/m²) for δ between 5° and 25°, and

(3) $-105$ dB(W/m²) for δ between 25° and 90°.

(b) In the sub-band 17.8–19.3 GHz, the pfd at the surface of the Earth produced by emissions from a Federal space station in an NGSO constellation of 51 or more satellites, for all conditions and for all methods of modulation, shall not exceed the following values in any 1 MHz band:

(1) $-115 - X$ dB(W/m²) for δ between 0° and 5°,

(2) $-115 - X + ((10 + X)/20)(\delta - 5)$ dB(W/m²) for δ between 5° and 25°, and

(3) $-105$ dB(W/m²) for δ between 25° and 90°; where X is defined as a function of the number of satellites, n, in an NGSO constellation as follows:

For $n \leq 288$, $X = (5/119)(n - 50)$ dB; and
For $n > 288$, $X = (1/69)(n + 402)$ dB.

US335 In the band 220–222 MHz, Federal and non-Federal use of the fixed and land mobile services is restricted as follows:

(a) The sub-bands 220–220.55/221.0–221.55, 220.6–220.8/221.6–221.8, 220.85–220.9/221.85–221.9 and 220.925–221/221.925–222 MHz (Channels 1–110, 121–160, 171–180 and 186–200, respectively) are available for exclusive non-Federal use. These sub-bands are also available for temporary fixed geophysical telemetry operations on a secondary basis to the fixed and land mobile services.

(b) The sub-bands 220.55–220.6/221.55–221.6 MHz (Channels 111–120) are available for exclusive Federal use.

(c) The sub-bands 220.8–220.85/221.8–221.85 and 220.9–220.925/221.9–221.925 MHz (Channels 161–170 and 181–185, respectively) are available for shared Federal and non-Federal use.

US337 In the band 13.75–13.8 GHz, the FCC shall coordinate earth stations in the fixed-satellite service with NTIA on a case-by-case basis in order to minimize harmful interference to the Tracking and Data Relay Satellite System's forward space-to-space link (TDRSS forward link-to-LEO).

US338 In the band 2305–2310 MHz, space-to-Earth operations are prohibited. Additionally, in the band 2305–2320 MHz, the FCC shall coordinate all Wireless Communications Service (WCS) operations within 50 km of NASA's Deep Space facility in Goldstone, CA (35°20′ N, 116°53′ W) with NTIA in order to minimize harmful interference to deep space reception in the band 2290–2300 MHz.

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US342 In making assignments to stations of other services to which the bands:

13360–13410 kHz
25550–25670 kHz
37.5–38.25 MHz
322–328.6 MHz*
1330–1400 MHz*
1610.6–1613.8 MHz*
1660–1660.5 MHz*
1668.4–1670 MHz*
3260–3267 MHz*
3332–3339 MHz*
3345.8–3352.5 MHz*
4825–4835 MHz*
4950–4990 MHz
6650–6675.2 MHz*
14.47–14.5 GHz*
22.01–22.21 GHz*
22.21–22.5 GHz
22.81–22.86 GHz*
23.07–23.12 Gz*
31.2–31.3 GHz
36.43–36.5 GHz*
42.5–43.5 GHz
42.77–42.87 GHz*
43.07–43.17 GHz*
43.37–43.47 GHz*
48.94–49.04 GHz*
76–86 GHz
92–94 GHz
94.1–100 GHz
102–109.5 GHz
111.8–114.25 GHz
128.33–128.59 GHz*
129.23–129.49 GHz*
130–134 GHz
136–148.5 GHz
151.5–158.5 GHz
168.59–168.93 GHz*
171.11–171.45 GHz*
172.31–172.65 GHz*
173.52–173.85 GHz*
195.75–196.15 GHz*
209–226 GHz
241–250 GHz
252–275 GHz

are allocated (*indicates radio astronomy use for spectral line observations), all practicable steps shall be taken to protect the radio astronomy service from harmful interference. Emissions from spaceborne or airborne stations can be particularly serious sources of interference to the radio astronomy service (see ITU *Radio Regulations* at Nos. 4.5 and 4.6 and Article 29).

* * * * *

US344 In the band 5091–5250 MHz, the FCC shall coordinate earth stations in the fixed-satellite service (Earth-to-space) with NTIA (see Recommendation ITU–R S.1342). In order to better protect the operation of the international standard system (microwave landing system) in the band 5000–5091 MHz, non-Federal tracking and telecommand operations should be conducted in the band 5150–5250 MHz.

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US346 Except as provided for below and by US222, Federal use of the band 2025–2110 MHz by the space operation service (Earth-to-space), Earth exploration-satellite service (Earth-to-space), and space research service

(Earth-to-space) shall not constrain the deployment of the Television Broadcast Auxiliary Service, the Cable Television Relay Service, or the Local Television Transmission Service. To facilitate compatible operations between non-Federal terrestrial receiving stations at fixed sites and Federal earth station transmitters, coordination is required. To facilitate compatible operations between non-Federal terrestrial transmitting stations and Federal spacecraft receivers, the terrestrial transmitters in the band 2025–2110 MHz shall not be high-density systems (see Recommendations ITU–R SA.1154 and ITU–R F.1247). Military satellite control stations at the following sites shall operate on a co-equal, primary basis with non-Federal operations:

| Facility | Coordinates |
|---|---|
| Naval Satellite Control Network, Prospect Harbor, ME | 44°24′16″ N, 068°00′46″ W |
| New Hampshire Tracking Station, New Boston AFS, NH | 42°56′52″ N, 071°37′36″ W |
| Eastern Vehicle Check-out Facility & GPS Ground Antenna & Monitoring Station, Cape Canaveral, FL | 28°29′09″ N, 080°34′33″ W |
| Buckley AFB, CO | 39°42′55″ N, 104°46′36″ W |
| Colorado Tracking Station, Schriever AFB, CO | 38°48′21″ N, 104°31′43″ W |
| Kirtland AFB, NM | 34°59′46″ N, 106°30′28″ W |
| Camp Parks Communications Annex, Pleasanton, CA | 37°43′51″ N, 121°52′50″ W |
| Naval Satellite Control Network, Laguna Peak, CA | 34°06′31″ N, 119°03′53″ W |
| Vandenberg Tracking Station, Vandenberg AFB, CA | 34°49′21″ N, 120°30′07″ W |
| Hawaii Tracking Station, Kaena Pt, Oahu, HI | 21°33′44″ N, 158°14′31″ W |
| Guam Tracking Stations, Anderson AFB, and Naval CTS, Guam | 13°36′54″ N, 144°51′18″ E |

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US348 The band 3650–3700 MHz is also allocated to the Federal radiolocation service on a primary basis at the following sites: St. Inigoes, MD (38°10′ N, 76°23′ W); Pascagoula, MS (30°22′ N, 88°29′ W); and Pensacola, FL (30°21′28″ N, 87°16′26″ W). The FCC shall coordinate all non-Federal operations within 80 km of these sites with NTIA on a case-by-case basis.

* * * * *

US351 In the band 1390–1400 MHz, Federal operations (except for medical telemetry and telecommand operations in the sub-band 1395–1400 MHz) are on a non-interference basis to non-Federal operations and shall not constrain implementation of non-Federal operations. However, Federal operations authorized as of March 22, 1995 at 17 sites identified below will be continued on a fully protected basis until January 1, 2009.

| 80 km radius of operation centered on: | | |
|---|---|---|
| State | Site | Coordinates |
| AK | Ft. Greely | 63°47′ N, 145°52′ W |
| AL | Ft. Rucker | 31°13′ N, 085°49′ W |
| AL | Redstone | 34°35′ N, 086°35′ W |
| AZ | Ft. Huachuca | 31°33′ N, 110°18′ W |
| AZ | Yuma | 32°29′ N, 114°20′ W |
| CA | China Lake | 35°41′ N, 117°41′ W |
| CA | Edwards AFB | 34°54′ N, 117°53′ W |
| CA | Pacific Missile Range | 34°07′ N, 119°30′ W |
| FL | Eglin AFB | 30°28′ N, 086°31′ W |
| MD | Aberdeen PG | 39°29′ N, 076°08′ W |
| MD | Patuxent River | 38°17′ N, 076°25′ W |
| NC | Cherry Point | 34°57′ N, 076°56′ W |
| NM | Holloman AFB | 33°29′ N, 106°50′ W |
| NM | WSM Range | 32°10′ N, 106°21′ W |
| OH | Wright-Patterson AFB | 39°50′ N, 084°03′ W |
| UT | Dugway PG | 40°11′ N, 112°53′ W |
| UT | Utah Test Range | 40°57′ N, 113°05′ W |

US353 In the bands 56.24–56.29 GHz, 58.422–58.472 GHz, 59.139–59.189 GHz, 59.566–59.616 GHz, 60.281–60.331 GHz, 60.41–60.46 GHz, and 62.461–62.511 GHz, space-based radio astronomy observations may be made on an unprotected basis.

US354 In the band 58.422–58.472 GHz, airborne stations and space stations in the space-to-Earth direction shall not be authorized.

US355 In the band 10.7–11.7 GHz, non-geostationary satellite orbit licensees in the fixed-satellite service (space-to-Earth), prior to commencing operations, shall coordinate with the following radio astronomy observatories to achieve a mutually acceptable agreement regarding the protection of the radio telescope facilities operating in the band 10.6–10.7 GHz:

| Observatory | North latitude | West longitude | Elevation (in meters) |
|---|---|---|---|
| Arecibo Observatory, PR | 18°20′39″ | 66°45′10″ | 496 |
| Green Bank Telescope (GBT), WV | 38°25′59″ | 79°50′23″ | 825 |
| Very Large Array (VLA), Socorro, NM | 34°04′44″ | 107°37′06″ | 2126 |
| Very Long Baseline Array (VLBA) Stations: | | | |
| Brewster, WA | 48°07′52″ | 119°41′00″ | 255 |
| Fort Davis, TX | 30°38′06″ | 103°56′41″ | 1615 |
| Hancock, NH | 42°56′01″ | 71°59′12″ | 309 |
| Kitt Peak, AZ | 31°57′23″ | 111°36′45″ | 1916 |
| Los Alamos, NM | 35°46′30″ | 106°14′44″ | 1967 |
| Mauna Kea, HI | 19°48′05″ | 155°27′20″ | 3720 |

| Observatory | North latitude | West longitude | Elevation (in meters) |
|---|---|---|---|
| North Liberty, IA | 41°46′17″ | 91°34′27″ | 241 |
| Owens Valley, CA | 37°13′54″ | 118°16′37″ | 1207 |
| Pie Town, NM | 34°18′04″ | 108°07′09″ | 2371 |
| St. Croix, VI | 17°45′24″ | 64°35′01″ | 16 |

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US359 In the band 15.43–15.63 GHz, use of the fixed-satellite service (Earth-to-space) is limited to non-Federal feeder links of non-geostationary systems in the mobile-satellite service. The FCC shall coordinate Earth stations in this band with NTIA (see Annex 3 of Recommendation ITU–R S.1340).

US360 The band 33–36 GHz is also allocated to the fixed-satellite service (space-to-Earth) on a primary basis for Federal use. Coordination between Federal fixed-satellite service systems and non-Federal systems operating in accordance with the United States Table of Frequency Allocations is required.

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US362 The band 1670–1675 MHz is allocated to the meteorological-satellite service (space-to-Earth) on a primary basis for Federal use. Earth station use of this allocation is limited to Wallops Island, VA (37°56′44″ N, 75°27′37″ W), Fairbanks, AK (64°58′22″ N, 147°30′04″ W), and Greenbelt, MD (39°00′02″ N, 76°50′29″ W). Applicants for non-Federal stations within 100 kilometers of the Wallops Island or Fairbanks coordinates and within 65 kilometers of the Greenbelt coordinates shall notify NOAA in accordance with the procedures specified in 47 CFR 1.924.

* * * * *

US366 In the bands 5900–5950 kHz, 7300–7350 kHz, 9400–9500 kHz, 11600–11650 kHz, 12050–12100 kHz, 13570–13600 kHz, 13800–13870 kHz, 15600–15800 kHz, 17480–17550 kHz, and 18900–19020 kHz, the following provisions shall apply to stations in the fixed and mobile except aeronautical mobile services:

(a) *All Stations*. Federal and non-Federal stations shall:

(1) Be limited to communicating only within the United States and its insular areas;

(2) Not cause harmful interference to the reception of, and must accept interference from, international broadcast stations;

(3) Be limited to the minimum power required to achieve reliable communications; and

(4) Take account of the seasonal use of frequencies by the broadcasting service published in accordance with Article 12 of the ITU *Radio Regulations*.

(b) *Existing and Future Federal Stations*. (1) Frequencies in all of the above listed frequency bands may be used by existing and future Federal stations in the fixed service; and

(2) Frequencies in the bands 5900–5950 kHz, 7300–7350 kHz, 13570–13600 kHz, and 13800–13870 kHz may also be used by existing and future Federal stations in the mobile except aeronautical mobile service.

(c) *Grandfathered non-Federal Stations*. (1) Frequencies in the bands 5900–5950 kHz, 7300–7350 kHz, 9400–9500 kHz, 11600–11650 kHz, 12050–12100 kHz, 13800–13870 kHz, and 15600–15800 kHz may continue to be used by non-Federal stations in the fixed service that were licensed prior to March 25, 2007; and

(2) Frequencies in the bands 5900–5950 kHz and 7300–7350 kHz may continue to be used by non-Federal stations in the mobile except aeronautical mobile service that were licensed prior to March 25, 2007.

* * * * *

US368 (a) The use of the bands 1390–1392 MHz and 1430–1432 MHz by the fixed-satellite service is limited to feeder links for the Non-Voice Non-Geostationary Mobile-Satellite Service and is contingent on:

(1) The completion of ITU–R studies on all identified compatibility issues as shown in Annex 1 of Resolution 745 (WRC–2003);

(2) Measurement of emissions from equipment that would be employed in operational systems and demonstrations to validate the studies as called for in Resolution 745 (WRC–2003); and

(3) Compliance with any technical and operational requirements that may be imposed at WRC–07 to protect other services in these bands and passive services in the band 1400–1427 MHz from unwanted emissions.

(b) The FCC shall coordinate individual assignments with NTIA (see, for example, Recommendations ITU–R RA.769–2 and ITU–R SA.1029–2) to ensure the protection of passive services in the band 1400–1427 MHz. As part of the coordination requirements, the feeder uplink and downlink systems shall be tested and certified to be in conformance with the technical and operational out-of-band requirements for the protection of passive services in the band 1400–1427 MHz. Certification and all supporting documentation shall be submitted to the FCC at least three months prior to launch.

US378 In the band 1710–1755 MHz, the following provisions apply:

(a) Federal fixed and tactical radio relay stations may operate indefinitely on a primary basis within 80 km of Cherry Point, NC (34°58′ N, 076°56′ W) and Yuma, AZ (32°32′ N, 113°58′ W).

(b) Federal fixed and tactical radio relay stations shall operate on a secondary basis to primary non-Federal operations at the 14 sites listed below:

| State | Location | Coordinates |
|---|---|---|
| | 80 km radius of operation centered on: | |
| CA | China Lake | 35°41′ N, 117°41′ W |
| CA | Pacific Missile Test Range/Point Mugu | 34°07′ N, 119°30′ W |
| FL | Eglin AFB | 30°29′ N, 086°31′ W |
| MD | Patuxent River | 38°17′ N, 076°25′ W |
| NM | White Sands Missile Range | 33°00′ N, 106°30′ W |
| NV | Nellis AFB | 36°14′ N, 115°02′ W |
| UT | Hill AFB | 41°07′ N, 111°58′ W |
| AL | Fort Rucker | 31°13′ N, 085°49′ W |
| CA | Fort Irwin | 35°16′ N, 116°41′ W |
| GA | Fort Benning | 32°22′ N, 084°56′ W |
| GA | Fort Stewart | 31°52′ N, 081°37′ W |
| KY | Fort Campbell | 36°41′ N, 087°28′ W |
| NC | Fort Bragg | 35°09′ N, 079°01′ W |
| WA | Fort Lewis | 47°05′ N, 122°36′ W |

(c) In the sub-band 1710–1720 MHz, precision guided munitions shall operate on a primary basis until inventory is exhausted or until December 31, 2008, whichever is earlier.

(d) All other Federal stations in the fixed and mobile services shall operate on a primary basis until reaccommodated in

accordance with the Commercial Spectrum Enhancement Act.

* * * * *

US381 The frequencies 5332 kHz, 5348 kHz, 5368 kHz, 5373 kHz, and 5405 kHz are allocated to the amateur service on a secondary basis. Amateur use of these frequencies shall be limited to 50 watts e.r.p. and to single sideband suppressed carrier modulation (emission designator 2K8J3E), upper sideband voice transmissions only.

* * * * *

US388 In the bands 81–86 GHz, 92–94 GHz, and 94.1–95 GHz and within the coordination distances indicated below, assignments to allocated services shall be coordinated with the following radio astronomy observatories. New observatories shall not receive protection from fixed stations that are licensed to operate in the one hundred most populous urbanized areas as defined by the U.S. Census Bureau for the year 2000.

**Note:** Satisfactory completion of the coordination procedure utilizing the automated mechanism, see 47 CFR 101.1523, will be deemed to establish sufficient separation from radio astronomy observatories, regardless of whether the distances set forth above are met.

| Telescope and site | 150 kilometer (93 mile) radius centered on: | |
|---|---|---|
| | North latitude | West longitude |
| National Radio Astronomy Observatory (NRAO), Robert C. Byrd Telescope, Green Bank, WV | 38°25′59″ | 79°50′23″ |
| NRAO, Very Large Array, Socorro, NM | 34°04′44″ | 107°37′06″ |
| University of Arizona 12-m Telescope, Kitt Peak, AZ | 31°57′12″ | 111°36′53″ |
| Caltech Telescope, Owens Valley, CA | 37°13′54″ | 118°17′36″ |
| Five College Observatory, Amherst, MA | 42°23′30″ | 72°20′42″ |
| Haystack Observatory, Westford, MA | 42°37′24″ | 71°29′18″ |
| James Clerk Maxwell Telescope, Mauna Kea, HI | 19°49′33″ | 155°28′47″ |
| Combined Array for Research in Millimeter-wave Astronomy (CARMA), CA | 37°16′43″ | 118°08′32″ |

| NRAO, Very Long Baseline Array Stations | 25 kilometer (15.5 mile) radius centered on: | |
|---|---|---|
| | North latitude | West longitude |
| Brewster, WA | 48°07′52″ | 119°41′00″ |
| Fort Davis, TX | 30°38′06″ | 103°56′41″ |
| Hancock, NH | 42°56′01″ | 71°59′12″ |
| Kitt Peak, AZ | 31°57′23″ | 111°36′45″ |
| Los Alamos, NM | 35°46′30″ | 106°14′44″ |
| Mauna Kea, HI | 19°48′05″ | 155°27′20″ |
| North Liberty, IA | 41°46′17″ | 91°34′27″ |
| Owens Valley, CA | 37°13′54″ | 118°16′37″ |
| Pie Town, NM | 34°18′04″ | 108°07′09″ |
| Saint Croix, VI | 17°45′24″ | 64°35′01″ |

* * * * *

US396 The band 7350–7400 kHz is allocated exclusively to the broadcasting service in accordance with the schedule specified below, except that, in Alaska, the sub-band 7368.5–7371.3 kHz is allocated to the fixed service on an exclusive basis for non-Federal use in accordance with 47 CFR 80.387.

(a) Until March 29, 2009, the band 7350–7400 kHz is allocated to the fixed service on a primary basis and to the mobile except aeronautical mobile service on a secondary basis for Federal and non-Federal use.

(b) After March 29, 2009, authority to operate in the band 7350–7400 kHz shall not be extended to new non-Federal stations in the fixed and mobile except aeronautical mobile services.

(c) After March 29, 2009, Federal and non-Federal stations in the fixed and mobile except aeronautical mobile services shall:

(1) Be limited to communications wholly within the United States and its insular areas;

(2) Not cause harmful interference to the broadcasting service;

(3) Be limited to the minimum power needed to achieve communications; and

(4) Take account of the seasonal use of frequencies by the broadcasting service published in accordance with Article 12 of the ITU *Radio Regulations.*

US397 In the band 432–438 MHz, the Earth exploration-satellite service (active) is allocated on a secondary basis for Federal use. Stations in the Earth exploration-satellite service (active) shall not be operated within line-of-sight of the United States except for the purpose of short duration pre-operational testing. Operations under this allocation shall not cause harmful interference to, nor claim protection from, any other services allocated in the band 432–438 MHz in the United States, including secondary services and the amateur-satellite service.

* * * * *

US399 Except as indicated below, the bands 161.9625–161.9875 MHz (AIS 1 with its center frequency at 161.975 MHz) and 162.0125–162.0375 MHz (AIS 2 with its center frequency at 162.025 MHz) are allocated to the maritime mobile service on a primary basis for Federal and non-Federal use, and shall be used exclusively for Automatic Identification Systems. However, in VHF Public Coast Station Areas (VPCSAs) 1–9, site-based VHF Public Coast stations licensed prior to November 13, 2006 may continue to operate on a co-primary basis in the band 161.9625–161.9875 MHz until expiration of the license term for licenses in active status as of November 13, 2006, and in VPCSAs 10–42, the band 161.9625–161.9875 MHz is allocated to the maritime mobile service on a primary basis for exclusive non-Federal use. *See* 47 CFR 80.371(c)(1)(ii) for the definitions of VPCSAs.

* * * * *

US401 In the band 17.7–17.8 GHz, Federal earth stations in the fixed-satellite service (space-to-Earth) may be authorized in the Denver, CO and Washington, DC areas on a primary basis. Before commencement of operations, the FCC shall coordinate fixed service applications supporting Multichannel Video Programming Distributors (MVPD) with NTIA.

* * * * *

**Non-Federal Government (NG) Footnotes**

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NG1 The band 535–1705 kHz is also allocated to the mobile service on a secondary basis for the distribution of public service information from Travelers Information Stations operating in accordance with the provisions of 47 CFR 90.242 on 10 kilohertz spaced channels from 540 kHz to 1700 kHz.

* * * * *

NG28 In Puerto Rico and the United States Virgin Islands, the band 160.86–161.4 MHz is available for assignment to remote pickup broadcast stations on a shared basis with stations in the Industrial/Business Pool.

NG30 In Puerto Rico, the band 942–944 MHz is alternatively allocated to the fixed service (aural broadcast auxiliary stations).

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NG51 In Puerto Rico and the United States Virgin Islands, the use of band 150.8–151.49 MHz by the fixed and land mobile services is limited to stations in the Industrial/Business Pool.

NG53 In the band 13.15–13.25 GHz, the following provisions shall apply:

(a) The sub-band 13.15–13.2 GHz is reserved for television pickup (TVPU) and cable television relay service (CARS) pickup stations inside a 50 km radius of the 100 television markets delineated in 47 CFR 76.51; and outside these areas, TVPU stations, CARS stations and non-geostationary satellite orbit fixed-satellite service (NGSO FSS) gateway earth stations shall operate on a co-primary basis.

(b) The sub-band 13.2–13.2125 GHz is reserved for TVPU stations on a primary basis and for CARS pickup stations on a secondary basis inside a 50 km radius of the 100 television markets delineated in 47 CFR 76.51; and outside these areas, TVPU stations and NGSO FSS gateway earth stations shall operate on a co-primary basis and CARS stations shall operate on a secondary basis.

(c) In the band 13.15–13.25 GHz, fixed television auxiliary stations licensed pursuant to applications accepted for filing before September 1, 1979, may continue operation, subject to periodic license renewals.

(d) In the sub-band 13.15–13.2125 GHz, NGSO FSS gateway uplink transmissions shall be limited to a maximum e.i.r.p. of 3.2 dBW towards 0° on the radio horizon.

**Note:** The above provisions shall not apply to geostationary satellite orbit (GSO) FSS operations in the band 12.75–13.25 GHz.

NG56 In the bands 72–73 and 75.4–76 MHz, the use of mobile radio remote control of models is on a secondary basis to all other fixed and mobile operations. Such operations are subject to the condition that interference will not be caused to common carrier domestic public stations, to remote control of industrial equipment operating in the band 72–76 MHz, or to the reception of television signals on channels 4 (66–72 MHz) or 5 (76–82 MHz). Television interference shall be considered to occur whenever reception of regularly used television signals is impaired or destroyed, regardless of the strength of the television signal or the distance to the television station.

* * * * *

NG66 The band 470–512 MHz (TV channels 14–20) is allocated to the broadcasting service on an exclusive basis throughout the United States and its insular areas, except as described below:

(a) In the urbanized areas listed in the table below, the indicated frequency bands are allocated to the land mobile service on an exclusive basis for assignment to eligibles in the Public Mobile Services, the Public Safety Radio Pool, and the Industrial/Business Radio Pool, except that:

(1) Licensees in the land mobile service that are regulated as Commercial Mobile Radio Service (CMRS) providers may also use their assigned spectrum to provide fixed service on a primary basis.

(2) The use of the band 482–488 MHz (TV channel 16) is limited to eligibles in the Public Safety Radio Pool in or near (i) the Los Angeles urbanized area; and (ii) New York City; Nassau, Suffolk, and Westchester Counties in New York State; and Bergen County, NJ.

| Urbanized area | Bands (MHz) | TV channels |
|---|---|---|
| Boston, MA | 470–476, 482–488 | 14, 16 |
| Chicago, IL-Northwestern IN | 470–476, 476–482 | 14, 15 |
| Cleveland, OH | 470–476, 476–482 | 14, 15 |
| Dallas-Fort Worth, TX | 482–488 | 16 |
| Detroit, MI | 476–482, 482–488 | 15, 16 |
| Houston, TX | 488–494 | 17 |
| Los Angeles, CA | 470–476, 482–488, 506–512 | 14, 16, 20 |
| Miami, FL | 470–476 | 14 |
| New York, NY-Northeastern NJ | 470–476, 476–482, 482–488 | 14, 15, 16 |
| Philadelphia, PA-NJ | 500–506, 506–512 | 19, 20 |
| Pittsburgh, PA | 470–476, 494–500 | 14, 18 |
| San Francisco-Oakland, CA | 482–488, 488–494 | 16, 17 |
| Washington, DC-MD-VA | 488–494, 494–500 | 17, 18 |

(b) In the Gulf of Mexico offshore from the Louisiana-Texas coast, the band 476–494 MHz (TV channels 15–17) is allocated to the fixed and mobile services on a primary basis for assignment to eligibles in the Public Mobile and Private Land Mobile Radio Services.

(c) In Hawaii, the band 488–494 MHz (TV channel 17) is allocated exclusively to the fixed service for use by common carrier control and repeater stations for point-to-point inter-island communications only.

(d) The use of these allocations is further subject to the conditions set forth in 47 CFR parts 22 and 90.

* * * * *

NG112 The frequencies 25.04, 25.08, 150.980, 154.585, 158.445, 159.480, 454.000 and 459.000 MHz may be authorized to stations in the Industrial/Business Pool for use primarily in oil spill containment and cleanup operations and secondarily in regular land mobile communication.

* * * * *

NG124 In the bands 30.85–34, 37–38, 39–40, 42–47.41, 150.995–156.25, 158.715–159.465, 453.0125–453.9875, 458.0125–458.9875, 460.0125–465.6375, and 467.9375–467.9875 MHz, police licensees are authorized to operate low-power transmitters on a secondary basis in accordance with the provisions of 47 CFR 2.803 and 90.20(e)(5).

* * * * *

NG141 In Alaska, the frequencies 42.4 MHz and 44.1 MHz are authorized on a primary basis for meteor burst communications by fixed stations in the Rural Radio Service operating under the provisions of 47 CFR part 22. In Alaska, the frequencies 44.2 MHz and 45.9 MHz are authorized on a primary basis for meteor burst communications by fixed private radio stations operating under the provisions of 47 CFR part 90. The private radio station frequencies may be used by Common Carrier stations on a secondary, noninterference basis and the Common Carrier frequencies may be used by private radio stations for meteor burst communications on a secondary, noninterference basis. Users shall cooperate to the extent practical to minimize potential interference. Stations utilizing meteor burst communications shall not cause harmful interference to stations of other radio services operating in accordance with the Table of Frequency Allocations.

* * * * *

NG143 In the band 11.7–12.2 GHz, protection from harmful interference shall be afforded to transmissions from space stations not in conformance with ITU Radio Regulation No. 5.488 only if the operations of such space stations impose no unacceptable constraints on operations or orbit locations of space stations in conformance with No. 5.488.

NG144 Stations authorized as of September 9, 1983 to use frequencies in the bands 17.7–18.3 GHz and 19.3–19.7 GHz may, upon proper application, continue operations. Fixed stations authorized in the band 18.3–19.3 GHz that remain coprimary under the provisions of 47 CFR 21.901(e), 74.502(c), 74.602(g), 78.18(a)(4), and 101.147(r) may continue operations consistent with the provisions of those sections.

* * * * *

NG147 In the band 2483.5–2500 MHz, non-Federal stations in the fixed and mobile services that are licensed under 47 CFR parts

74, 90, or 101, which were licensed as of July 25, 1985, and those whose initial applications were filed on or before July 25, 1985, may continue to operate on a primary basis with the mobile-satellite and radiodetermination-satellite services, and in the sub-band 2495–2500 MHz, these grandfathered stations may also continue to operate on a primary basis with stations in the fixed and mobile except aeronautical mobile services that are licensed under 47 CFR part 27.

* * * * *

NG149 The bands 54–72 MHz, 76–88 MHz, 174–216 MHz, 470–512 MHz, 512–608 MHz, and 614–698 MHz are also allocated to the fixed service to permit subscription television operations in accordance with 47 CFR part 73.

* * * * *

NG155 The bands 159.500–159.675 MHz and 161.375–161.550 MHz are allocated to the maritime service as described in 47 CFR part 80. Additionally, the frequencies 159.550, 159.575 and 159.600 MHz are available for low-power intership communications.

* * * * *

NG158 The bands 763–775 MHz and 793–805 MHz are available for assignment to the public safety services, as described in 47 CFR part 90.

NG159 Any full-power television licensee that holds a television broadcast license to operate between 698 and 806 megahertz (TV channels 52–69) shall be entitled to protection from harmful interference through February 17, 2009, and may not operate at that frequency after February 17, 2009. Auxiliary broadcast stations (*i.e.*, low-power TV stations, translator stations, booster stations, TV auxiliary (backup) facilities, and low-power auxiliary stations) may continue to operate indefinitely in the band 698–806 MHz on a secondary basis to all other stations operating in that band.

NG160 In the band 5850–5925 MHz, the use of the non-Federal mobile service is limited to Dedicated Short Range Communications operating in the Intelligent Transportation System radio service.

NG163 The use of the band 17.3–17.7 GHz by the broadcasting-satellite service is limited to geostationary satellites.

* * * * *

NG167 The use of the band 24.75–25.25 GHz by the fixed-satellite service (Earth-to-space) is limited to feeder links for the broadcasting-satellite service.

* * * * *

NG172 In the band 7025–7075 MHz, the fixed-satellite service (space-to-Earth) is allocated on a primary basis, but the use of this allocation shall be limited to two grandfathered satellite systems. Associated earth stations located within 300 meters of the following locations shall be grandfathered: (a) In the band 7025–7075 MHz, Brewster, WA (48°08′46.7″ N., 119°42′8.0″ W.); and (b) In the sub-band 7025–7055 MHz, Clifton, TX (31°47′58.5″ N., 97°36′46.7″ W.) and Finca Pascual, PR (17°58′41.8″ N., 67°8′12.6″ W.).

NG173 In the band 216–220 MHz, secondary telemetry operations are permitted subject to the requirements of 47 CFR 90.259. After January 1, 2002, no new assignments shall be authorized in the sub-band 216–217 MHz.

NG175 In the band 38.6–40 GHz, television pickup stations that were authorized on or before April 16, 2003, may continue to operate on a secondary basis to stations operating in accordance with the Table of Frequency Allocations.

* * * * *

NG184 Land mobile stations in the bands 11.7–12.2 GHz and 14.2–14.4 GHz and fixed stations in the band 11.7–12.1 GHz that are licensed pursuant to 47 CFR part 101, subpart J as of March 1, 2005 may continue to operate on a secondary basis until their license expires. Existing licenses issued pursuant to 47 CFR part 101, subpart J will not be renewed in the bands 11.7–12.2 GHz and 14.2–14.4 GHz.

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**Federal Government (G) Footnotes**

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G2 In the bands 216–217 MHz, 220–225 MHz, 420–450 MHz (except as provided by US217 and G129), 890–902 MHz, 928–942 MHz, 1300–1390 MHz, 2310–2390 MHz, 2417–2450 MHz, 2700–2900 MHz, 3300–3500 MHz (except as provided by footnote US108), 5650–5925 MHz, and 9000–9200 MHz, the Federal radiolocation service is limited to the military services.

* * * * *

G6 Military tactical fixed and mobile operations may be conducted nationally on a secondary basis: (a) To the meteorological aids service in the band 403–406 MHz; and (b) To the radio astronomy service in the band 406.1–410 MHz. Such fixed and mobile operations are subject to local coordination to ensure that harmful interference will not be caused to the services to which the bands are allocated.

* * * * *

G127 Federal Travelers Information Stations (TIS) on 1610 kHz have coprimary status with AM Broadcast assignments. Federal TIS authorized as of August 4, 1994, preclude subsequent assignment for conflicting allotments.

* * * * *

G133 In the band 7190–7235 MHz, emissions to deep space are prohibited. Geostationary satellites in the space research service operating in the band 7190–7235 MHz shall not claim protection from existing and future stations in the fixed service and ITU Radio Regulation No. 5.43A does not apply.

## PART 25—SATELLITE COMMUNICATION

■ 7. The authority citation for part 25 continues to read as follows:

**Authority:** 47 U.S.C. 701–744. Interprets or applies Sections 4, 301, 302, 303, 307, 309 and 332 of the Communications Act, as amended, 47 U.S.C. Sections 154, 301, 302, 303, 307, 309 and 332, unless otherwise noted.

■ 8. Section 25.202 is amended by revising paragraph (a)(1) to read as follows:

### § 25.202 Frequencies, frequency tolerance and emission limitations.

(a)(1) *Frequency band.* The following frequencies are available for use by the fixed-satellite service. Precise frequencies and bandwidths of emission shall be assigned on a case-by-case basis. The Table follows:

| Space-to-earth (GHz) | Earth-to-space (GHz) |
|---|---|
| 3.65–3.7 [17] | [12 19] 5.091–5.25 |
| 3.7–4.2 [1] | [1] 5.925–6.425 |
| 6.7–7.025 [12] | [1 12 14] 12.75–13.25 |
| 10.7–10.95 [1 12] | [4 12] 13.75–14 |
| 10.95–11.2 [1 2 12] | [5] 14–14.2 |
| 11.2–11.45 [1 12] | 14.2–14.5 |
| 11.45–11.7 [1 2 12] | [12 20] 15.43–15.63 |
| 11.7–12.2 [3] | [9] 17.3–17.8 |
| 12.2–12.7 [13] | [18] 24.75–25.05 |
| 18.3–18.58 [1 10] | [1 18] 25.05–25.25 |
| 18.58–18.8 [6 10 11] | [1] 27.5–29.5 |
| 18.8–19.3 [7 10] | 29.5–30 |
| 19.3–19.7 [8 10] | [1] 47.2–50.2 |
| 19.7–20.2 [10]. | |
| 37.5–40 [15 16]. | |
| 40–42 [16]. | |

[1] This band is shared coequally with terrestrial radiocommunication services.

[2] Use of this band by geostationary satellite orbit satellite systems in the fixed-satellite service is limited to international systems; *i.e.*, other than domestic systems.

[3] Fixed-satellite transponders may be used additionally for transmissions in the broadcasting-satellite service.

[4] This band is shared on an equal basis with the Government radiolocation service and grandfathered space stations in the Tracking and Data Relay Satellite System.

[5] In this band, stations in the radionavigation service shall operate on a secondary basis to the fixed-satellite service.

[6] The band 18.58–18.8 GHz is shared coequally with existing terrestrial radiocommunication systems until June 8, 2010.

[7] The band 18.8–19.3 GHz is shared coequally with terrestrial radiocommunication services, until June 8, 2010. After this date, the sub-band 19.26–19.3 GHz is shared coequally with existing terrestrial radiocommunication systems.

[8] The use of the band 19.3–19.7 GHz by the fixed-satellite service (space-to-Earth) is limited to feeder links for the mobile-satellite service.

[9] The use of the band 17.3–17.8 GHz by the fixed-satellite service (Earth-to-space) is limited to feeder links for broadcasting-satellite service, and the sub-band 17.7–17.8 GHz is shared coequally with terrestrial fixed services.

[10] This band is shared coequally with the Federal Government fixed-satellite service.

[11] The band 18.6–18.8 GHz is shared coequally with the non-Federal Government and Federal Government Earth exploration-satellite (passive) and space research (passive) services.

[12] Use of this band by nongeostationary satellite orbit systems in the fixed-satellite service is limited to gateway earth station operations.

[13] Use of this band by the fixed-satellite service is limited to nongeostationary satellite orbit systems.

[14] Use of this band by NGSO FSS gateway earth station uplink operations is subject to the provisions of § 2.106 NG53.

[15] Use of this band by the fixed-satellite service is limited to "gateway" earth station operations, provided the licensee under this Part obtains a license under Part 101 of this Chapter or an agreement from a Part 101 licensee for the area in which an earth station is to be located. Satellite earth station facilities in this band may not be ubiquitously deployed and may not be used to serve individual consumers.

[16] The band 37.5–40.0 GHz is designated as being available for use by the fixed and mobile services and the band 40.0–42.0 GHz is designated as being available for use by the fixed-satellite service.

[17] FSS earth stations in this band must operate on a secondary basis to terrestrial radiocommunication services, except that the band is shared coequally between certain grandfathered earth stations and the terrestrial radiocommunication services.

[18] Use of the band 24.75–25.25 GHz by the fixed-satellite service (Earth-to-space) is limited to feeder links for space stations in the broadcasting-satellite service, and the sub-band 25.05–25.25 GHz is shared coequally with terrestrial fixed services.

[19] See 47 CFR 2.106, footnotes 5.444A and US344, for conditions that apply to this band.

[20] See 47 CFR 2.106, footnotes 5.511C and US359, for conditions that apply to this band.

* * * * *

■ 9. Section 25.208 is amended by revising paragraph (n) to read as follows:

**§ 25.208 Power flux density limits.**

* * * * *

(n) The power-flux density at the Earth's surface produced by emissions from a space station in the fixed-satellite service (space-to-Earth), for all conditions and for all methods of modulation, shall not exceed the limits given in Table N. These limits relate to the power flux-density which would be obtained under assumed free-space conditions.

TABLE N.—LIMITS OF POWER-FLUX DENSITY FROM SPACE STATIONS IN THE BAND 6700–7075 MHZ

| Frequency band | Limit in dB (W/m$^2$) for angle of arrival (δ) above the horizontal plane | | | Reference bandwidth |
|---|---|---|---|---|
| | 0°–5° | 5°–25° | 25°–90° | |
| 6700–6825 MHz | −137 | −137 + 0.5(δ − 5) | −127 | 1 MHz. |
| 6825–7075 MHz | −154 and −134 | −154 + 0.5(δ − 5) and −134 + 0.5(δ − 5) | −144 and −124 | 4 kHz. 1 MHz. |

* * * * *

## PART 73—RADIO BROADCAST SERVICES

■ 10. The authority citation for part 73 continues to read as follows:

**Authority:** 47 U.S.C. 154, 303, 334, 336, and 339.

■ 11. Sections 73.702 is amended by revising paragraphs (f)(1), (g)(1), and (g)(2)(i) to read as follows:

**§ 73.702 Assignment and use of frequencies.**

* * * * *

(f) * * *

(1) *Worldwide allocations.* In the ITU *Radio Regulations*, the following bands are allocated to the broadcasting service on a primary and exclusive basis throughout the world: 5900–6200 kHz, 7300–7350 kHz, 9400–9900 kHz, 11600–12100 kHz, 13570–13870 kHz, 15100–15800 kHz, 17480–17900 kHz, 18900–19020 kHz, 21450–21850 kHz, and 25670–26100 kHz.

* * * * *

(g) * * *

(1) *Worldwide allocations.* Until March 29, 2009, the band 7350–7400 kHz is allocated to the broadcasting and fixed services on a co-primary basis throughout the world. After March 29, 2009, the band 7350–7400 kHz is allocated to the broadcasting service on an exclusive basis throughout the world, except in the countries listed in 47 CFR 2.106, footnote 5.143C where the band 7350–7400 kHz continues to be allocated to the broadcasting and fixed services on a co-primary basis.

(2) * * * (i) Until March 29, 2009, the band 7100–7200 kHz is allocated to the amateur and broadcasting services on a co-primary basis in Region 1 and Region 3; however, during this transition period, the use of the band 7100–7200 kHz by the amateur service shall not impose constraints on the broadcasting service intended for use within Region 1 and Region 3. Where practical, requests for frequency assignments in the band 7100–7200 kHz shall be satisfied within the band 7200–7350 kHz. After March 29, 2009, the band 7100–7200 kHz is no longer allocated to the broadcasting service.

* * * * *

## PART 74—EXPERIMENTAL RADIO, AUXILIARY, SPECIAL BROADCAST AND OTHER PROGRAM DISTRIBUTIONAL SERVICES

■ 12. The authority citation for part 90 continues to read as follows:

**Authority:** 47 U.S.C. 154, 303, 307, 336(f), 336(h) and 554.

■ 13. Section 74.502 is amended by revising paragraph (a) to read as follows:

**§ 74.502 Frequency assignment.**

(a) Except as provided in NG30, broadcast auxiliary stations licensed as of November 21, 1984, to operate in the band 942–944 MHz [1] may continue to operate on a co-equal, primary basis to other stations and services operating in the band in accordance with the Table of Frequency Allocations. These stations will be protected from possible interference caused by new users of the band by the technical standards specified in § 101.105(c)(2).

[1] **Note:** In addition to this band, stations in Puerto Rico may continue to be authorized on 942.5, 943.0, 943.5, 944.0 MHz in the band 942–944 MHz on a primary basis to stations and services operating in accordance with the Table of Frequency Allocations.

* * * * *

## PART 90—PRIVATE LAND MOBILE RADIO SERVICES

■ 14. The authority citation for part 90 continues to read as follows:

**Authority:** Sections 4(i), 11, 303(g), 303(r), and 332(c)(7) of the Communications Act of 1934, as amended, 47 U.S.C. 154(i), 161, 303(g), 303(r), 332(c)(7).

■ 15. Section 90.103 is amended by removing the entry "15,700 to 17,700" MHz and adding in its place the entry "15,700 to 17,300" MHz in the Radiolocation Service Frequency Table in paragraph (b) to read as follows:

**§ 90.103 Radiolocation Service.**

* * * * *

(b) Frequencies available. * * *

RADIOLOCATION SERVICE FREQUENCY TABLE

| Frequency or band | Class of station(s) | Limitation |
|---|---|---|
| * * * | * * * | * |
| Megahertz | | |
| * * * | * * * | * |
| 15,700 to 17,300 | do | |
| * * * | * * * | * |

* * * * *

■ 16. Section 90.242 is amended by revising paragraph (a)(3) to read as follows:

**§ 90.242 Travelers' information stations.**

(a) * * *

(3) Travelers' Information Stations will be authorized on a primary basis on 530 kHz and on a secondary basis to stations authorized on a primary basis in the band 535–1705 kHz.

* * * * *

## PART 97—AMATEUR RADIO SERVICE

■ 17. The authority citation for part 97 continues to read as follows:

**Authority:** 48 Stat. 1066, 1082, as amended; 47 U.S.C. 154, 303. Interpret or apply 48 Stat. 1064–1068, 1081–1105, as amended; 47 U.S.C. 151–155, 301–609, unless otherwise noted.

■ 18. Section 97.301 is amended by revising the introductory text and the tables in paragraphs (a), (d), and (e) to read as follows:

**§ 97.301 Authorized frequency bands.**

* * * * *

(a) For a station having a control operator who has been granted a Technician, Technician Plus, General, Advanced, or Amateur Extra Class operator license, who holds a CEPT radio amateur license, or who holds any class of IARP:

| Wavelength band | ITU—Region 1 | ITU—Region 2 | ITU—Region 3 | Sharing requirements see § 97.303 (Paragraph) |
|---|---|---|---|---|
| VHF | MHz | MHz | MHz | |
| 6 m | | 50–54 | 50–54 | (a) |
| 2 m | 144–146 | 144–148 | 144–148 | (a) |
| 1.25 m | | 219–220 | | (a), (e) |
| Do | | 222–225 | | (a) |
| UHF | MHz | MHz | MHz | |
| 70 cm | 430–440 | 420–450 | 420–450 | (a), (b), (f) |
| 33 cm | | 902–928 | | (a), (b), (g) |
| 23 cm | 1240–1300 | 1240–1300 | 1240–1300 | (b), (h), (i) |
| 13 cm | 2300–2310 | 2300–2310 | 2300–2310 | (a), (b), (j) |
| Do | 2390–2450 | 2390–2450 | 2390–2450 | (a), (b), (j) |
| SHF | GHz | GHz | GHz | |
| 9 cm | 3.4–3.475 | 3.3–3.5 | 3.3–3.5 | (a), (b), (k), (l) |
| 5 cm | 5.650–5.850 | 5.650–5.925 | 5.650–5.850 | (a), (b), (m) |
| 3 cm | 10.00–10.50 | 10.00–10.50 | 10.00–10.50 | (a), (c), (i), (n) |
| 1.2 cm | 24.00–24.25 | 24.00–24.25 | 24.00–24.25 | (a), (b), (i), (o) |
| EHF | GHz | GHz | GHz | |
| 6 mm | 47.0–47.2 | 47.0–47.2 | 47.0–47.2 | |
| 4 mm | 76–81 | 76–81 | 76–81 | (b), (c), (h), (k), (r) |
| 2.5 mm | 122.25–123 | 122.25–123 | 122.25–123 | (p) |
| 2 mm | 134–141 | 134–141 | 134–141 | (b), (c), (h), (k) |
| 1 mm | 241–250 | 241–250 | 241–250 | (b), (c), (h), (k), (q) |
| | above 275 | above 275 | above 275 | (k) |

* * * * *

(d) For a station having a control operator who has been granted an operator license of General Class:

| Wavelength band | ITU—Region 1 | ITU—Region 2 | ITU—Region 3 | Sharing requirements see § 97.303 (Paragraph) |
|---|---|---|---|---|
| MF | kHz | kHz | kHz | |
| 160 m | 1810–1850 | 1800–2000 | 1800–2000 | (a), (b), (c) |
| HF | MHz | MHz | MHz | |
| 80 m | 3.525–3.60 | 3.525–3.60 | 3.525–3.60 | (a) |
| 75 m | | 3.80–4.00 | 3.80–3.90 | (a) |
| 40 m | 7.025–7.125 | 7.025–7.125 | 7.025–7.125 | (a) |
| Do | | 7.175–7.300 | | (a) |
| 30 m | 10.10–10.15 | 10.10–10.15 | 10.10–10.15 | (d) |
| 20 m | 14.025–14.150 | 14.025–14.150 | 14.025–14.150 | |
| Do | 14.225–14.350 | 14.225–14.350 | 14.225–14.350 | |
| 17 m | 18.068–18.168 | 18.068–18.168 | 18.068–18.168 | |
| 15 m | 21.025–21.200 | 21.025–21.200 | 21.025–21.200 | |
| Do | 21.275–21.45 | 21.275–21.45 | 21.275–21.45 | |
| 12 m | 24.89–24.99 | 24.89–24.99 | 24.89–24.99 | |
| 10 m | 28.0–29.7 | 28.0–29.7 | 28.0–29.7 | |

(e) For a station having a control operator who has been granted an operator license of Novice Class, Technician Class, or Technician Plus Class:

| Wavelength band | ITU—Region 1 | ITU—Region 2 | ITU—Region 3 | Sharing requirements see § 97.303 (Paragraph) |
|---|---|---|---|---|
| HF | MHz | MHz | MHz | |
| 80 m | 3.525–3.60 | 3.525–3.60 | 3.525–3.60 | (a) |
| 40 m | 7.025–7.075 | 7.025–7.100 | 7.025–7.075 | |
| Do | 7.100–7.125 | 7.100–7.125 | 7.100–7.125 | (a), (t) |
| 15 m | 21.025–21.20 | 21.025–21.20 | 21.025–21.20 | |
| 10 m | 28.0–28.5 | 28.0–28.5 | 28.0–28.5 | |
| VHF | MHz | MHz | MHz | |
| 1.25 m | | 222–225 | | (a) |
| UHF | MHz | MHz | MHz | |
| 23 cm | 1270–1295 | 1270–1295 | 1270–1295 | (h), (i) |

■ 19. Section 97.303 is amended by revising paragraphs (b) and (r) to read as follows:

**§ 97.303 Frequency sharing requirements.**

* * * * *

(b) No amateur station transmitting in the 1900–2000 kHz segment, the 70 cm band, the 33 cm band, the 23 cm band, the 13 cm band, the 9 cm band, the 5 cm band, the 3 cm band, the 24.05–24.25 GHz segment, the 76–77.5 GHz segment, the 78–81 GHz segment, the 136–141 GHz segment, and the 241–248 GHz segment shall cause harmful interference to, nor is protected from interference due to the operation of, the Federal radiolocation service.

* * * * *

(r) Authorization of the 76–77 GHz segment of the 4 mm band for amateur station transmissions is suspended until such time that the Commission may determine that amateur station transmissions in this segment will not pose a safety threat to vehicle radar systems operating in this segment.

* * * * *

[FR Doc. E8–9341 Filed 5–5–08; 8:45 am]

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Federal Register

Tuesday,
May 6, 2008

# Part VI

# The President

## Proclamation 8250—Law Day, U.S.A., 2008

Federal Register
Vol. 73, No. 88
Tuesday, May 6, 2008

# Presidential Documents

**Title 3—**

## The President

**Proclamation 8250 of April 30, 2008**

## Law Day, U.S.A., 2008

**By the President of the United States of America**

**A Proclamation**

The right of ordinary men and women to determine their own future, protected by the rule of law, lies at the heart of America's founding principles. As our country celebrates the 50th anniversary of Law Day, we renew our commitment to the ideals on which this great Nation was established and to a robust system of ordered liberty.

The American legal system is central to protecting the rights and freedoms our Nation holds dear. The theme of this year's Law Day, ''The Rule of Law: Foundation for Communities of Opportunity and Equity,'' recognizes the fundamental role that the rule of law plays in preserving liberty in our Nation and in all free societies. We pay tribute to the men and women in America's legal community. Through hard work and dedication to the rule of law, members of the judiciary and the legal profession help secure the rights of individuals, bring justice to our communities, and reinforce the proud traditions that make America a beacon of light for the world.

Nearly 800 years ago, the Magna Carta placed the authority of government under the rule of law; centuries later, the Declaration of Independence and the United States Constitution marked tremendous advances in the march of liberty. These documents established enduring principles that guide modern democracies. Today, we are reminded of that past and look toward a hopeful future as we work to secure the liberty that is the natural right of every man, woman, and child.

On Law Day, U.S.A., our Nation celebrates our belief in the equality of each person before God and renews our commitment to strive to bring America ever closer to its founding ideals.

NOW, THEREFORE, I, GEORGE W. BUSH, President of the United States of America, in accordance with Public Law 87–20, as amended, do hereby proclaim May 1, 2008, as Law Day, U.S.A. I call upon all the people of the United States to observe this day with appropriate ceremonies and activities. I also call upon Government officials to display the flag of the United States in support of this national observance.

IN WITNESS WHEREOF, I have hereunto set my hand this thirtieth day of April, in the year of our Lord two thousand eight, and of the Independence of the United States of America the two hundred and thirty-second.

[FR Doc. 08–1223
Filed 5–2–08; 8:57 am]
Billing code 3195–01–P

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Class E Airspace; Establishment:

Hinton, OK; comments due by 5-12-08; published 3-26-08 [FR E8-05931]

Class E Airspace; Modification:

Staunton, VA; comments due by 5-15-08; published 3-31-08 [FR E8-06330]

Proposed Establishment of Class E Airspace:

Salida, CO; comments due by 5-12-08; published 3-28-08 [FR E8-06317]

Special Conditions:

Embraer S.A., Model ERJ 190-100 ECJ Airplane; Fire Protection; comments due by 5-12-08; published 4-21-08 [FR E8-08577]

Embraer S.A., Model ERJ 190-100 ECJ Airplane; Flight-Accessible Class C Cargo Compartment; comments due by 5-12-08; published 4-21-08 [FR E8-08582]

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**VETERANS AFFAIRS DEPARTMENT**

Elimination of Co-payment for Weight Management Counseling; comments due by 5-16-08; published 4-16-08 [FR E8-08097]

## LIST OF PUBLIC LAWS

This is a continuing list of public bills from the current session of Congress which have become Federal laws. It may be used in conjunction with "P L U S" (Public Laws Update Service) on 202–741–6043. This list is also available online at *http://www.archives.gov/federal-register/laws.html*.

The text of laws is not published in the **Federal Register** but may be ordered in "slip law" (individual pamphlet) form from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402 (phone, 202–512–1808). The text will also be made available on the Internet from GPO Access at *http://www.gpoaccess.gov/plaws/index.html*. Some laws may not yet be available.

**S. 2954/P.L. 110–208**

To amend Public Law 110-196 to provide for a temporary extension of programs authorized by the Farm Security and Rural Investment Act of 2008 beyond May 2, 2008. (May 2, 2008; 122 Stat. 720)

**Last List May 2, 2008**

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